Appendix C Revised Electric Power Survey Cover Letters, Forms, and Instructions

- Form EIA-411, "Coordinated Bulk Power Supply & Demand Program Report"
- Form EIA-826, "Monthly Electric Sales and Revenue with State Distributions Report"
- Form EIA-860, "Annual Electric Generator Report"
- Form EIA-860M, "Monthly Update to the Annual Electric Generator Report"
- Form EIA-861, "Annual Electric Power Industry Report"
- Form EIA-923, "Power Plant Operations Report"

Subject: United States Department of Energy – EIA Annual Data Collection, Form EIA-411

Dear Respondent:

The U.S. Energy Information Administration (EIA) is now ready for the North American Electric Reliability Corporation (NERC) to report the annual electric data for the year 2010. NERC is required to file **Form EIA-411**, "**Coordinated Bulk Power Supply and Demand Program Report**" for all regions and subregions. The data are due no later than June 1, 2011 to the NERC who will submit the regional reports to the EIA by July 15, 2011. The EIA electric surveys are a mandatory collection under the authority of the Federal Energy Administration Act of 1974 (P.L. 93-275). Non-respondents and late filers are subject to financial penalties.

NERC collects Form EIA-411 data as part of its annual Long Term Reliability Assessment (LTRA) data collection, and as part of the Transmission Availability Data System (TADS). A subset of the LTRA and TADS data collections are submitted to EIA to fulfill the Form EIA-411 data requirements. Transmission maps and power flow cases (Schedules 5 and 8 on the Form EIA-411 are submitted directly to EIA via a secure file transfer. Please contact the Form EIA-411 Survey Manager with any questions on the secure submission process.

The timely submission of Form EIA-411 by those required to report is mandatory under Section 13(b) of the Federal Energy Administration Act of 1974 (FEAA) (Public Law 93-275), as amended. Failure to respond may result in a penalty of not more than \$2,750 per day for each civil violation, or a fine of not more than \$5,000 per day for each criminal violation. The government may bring a civil action to prohibit reporting violations, which may result in a temporary restraining order or a preliminary or permanent injunction without bond. In such civil action, the court may also issue mandatory injunctions commanding any person to comply with these reporting requirements. Title 18 U.S.C. 1001 makes it a criminal offense for any person knowingly and willingly to make to any Agency or Department of the United States any false, fictitious, or fraudulent statements as to any matter within its jurisdiction.

Your cooperation is greatly appreciated.

Sincerely,

XXXXXXXXX Survey Manager Electric Power Division Office of Coal, Nuclear, Electric and Alternate Fuels Energy Information Administration

U.S. Department of Energy U.S. Energy Information Administration Form EIA-411 (2011)		COORDINATED BULK POWER SUPPLY AND DEMAND PROGRAM REPORT	Form Approved OMB No. 1905-0129 Approval Expires: 12/31/2013 Burden: 17 hours	
PURPOSE	Form EIA-411 collects information about regional electricity supply and demand projections for a ten-year advance period and information on the transmission system and supporting facilities. The data collected on this form appear in the U.S. Energy Information Administration (EIA) publication, <i>Electric Power Annual</i> . They are also used by the U.S. Department of Energy to monitor the current status and trends of the electric power industry and to evaluate the future of the industry.			
REQUIRED RESPONDENTS	The Form EIA-411 is mandatory for those entities required to report. With the exception of Schedule 7, the form is to be completed by each of the Regional Entities of NERC. Each Regional Entity compiles the responses from data furnished by utilities and other members within their Region and provided to NERC. Where subregions exist, a subregional submittal is required. NERC then compiles and coordinates these data and provides them to the U.S. Energy Information Administration. Schedule 7 data for each Regional Entity will be provided by NERC from its Transmission Availability Data System database.			
RESPONSE DUE DATE	Annual data, following the end of the calendar year, are due to the North American Electric Reliability Corporation by June 1 st . After review, NERC will submit the completed Form EIA-411 to the EIA by July 15.			
METHODS OF FILING RESPONSE	The North American Reliability Corporation (NERC) will oversee the methods of filing response of the data by the Regional Entities. NERC then submits the compiled report to EIA.			
	Maps and power flow cases should be transmitted electronically using a secure file transfer process. Contact Orhan Yildiz at orhan.yildiz@eia.gov for instructions.			
	If necessary, CD-ROM disks containing the data can also be mailed via overnight delivery to EIA at the following address:			
		ormation Administration, Mail Stop El-2 ence Avenue, S.W.	23	
	Please retain a completed copy of this form for your files.			
CONTACTS	Data Questions: F Manager:	uestions: For questions about the data requested on Form EIA-411, contact the Survey er:		
		Orhan Yildiz		
	Telephone Number: (202) 586-5410			
	FAX Number: (202) 287-1938			
	Email: <u>orhan.yildiz@eia.gov</u>			

U.S. Department of E U.S. Energy Informat Form EIA-411 (2011)		COORDINATED BULK POWER SUPPLY AND DEMAND PROGRAM REPORT	Form Approved OMB No. 1905-0129 Approval Expires: 12/31/2013 Burden: 17 hours	
GENERAL INSTRUCTIONS	For schedules we reporting year. Full "Actual" column data for the year.	mission data for facilities 100kV and above, with the exception of AC circuit and		
ITEM-BY-ITEM INSTRUCTIONS		SCHEDULE 1: IDENTIFIC	CATION	
	Survey Contact address.	et: Verify contact name, title, telep	hone number, fax number, and ema	
	2. Supervisor of Contact Person for Survey: Verify the contact's supervisor's name, title, telephone number, fax number and email address.			
	Report For: Verify the NERC Regional Entity and reporting party, whether it is a Regional Entity or subregion.			
	SCHEDULE 2, Part A and B: HISTORICAL AND PROJECTED PEAK DEMAND AND ENERGY			
	GENERAL INSTRU	CTIONS		
	a. non-coincide entities withi subregions coincident va b. the highest h a reporting e	n a NERC Region or subregion durir that provide coincident peak demar alue. nourly integrated ("60-minute net integ	eak demands for the various operating the specified period. For Regions onds, submit justification for providing prated peak") Net Energy For Load within The integrated peak hour demand (MW)	
	The term "peak" is de			
		tember. The summer peak period I	ad in megawatts during the period Jun pegins on June 1 and extends throug	
	Winter Pea December the through the eacher	k Hour Demand: The maximum rough February. The winter peak peend-of-February.	load in megawatts during the perio riod begins on December 1 and extend egawatts during the specified reportin	
	 Net Balancii Authority Ar interchange. 	eas, less energy delivered to other	energy received from other Balancin er Balancing Authority Areas throug losses but excludes energy required fo	
	whether resourc generation for aggregated. Whi the number of er demand forecas	es exceed demand while allowing suf instance). This test requires that le coincident demand determinations ntities reporting and the time available	of the power system is to determine ficient margin to address events (loss of demand forecasts be provided an are preferable, this is not feasible give to build hourly models. Therefore, peak. In some cases this can be done on	

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3. When providing a demand forecast to EIA the fundamental approach is to provide a normalized forecast. This is defined as a forecast which has been adjusted to reflect normal weather, and is expected on a 50% probability basis, (i.e., a peak demand forecast level that has a 50% probably of being under or over achieved by the actual peak). This is also known as the 50/50 forecast. This forecast can then be used to test against more extreme conditions.

PART A: Enter monthly peak demand and Net Energy for Load for designated months as defined above.

Monthly peak demands should be reported based on Total Internal Demand (see definition on Schedule 3A and 3B, line 2.

PART B: Enter seasonal peak demand and Net Energy for Load for designated years as defined above. The summer peak demands will be the values entered on SCHEDULE 3, Part A, line 2 for the corresponding year, and the winter peak demands will be the values entered on SCHEDULE 3, Part B, line 2, for the corresponding year. Please Note: as of 2011, all forecasts and projections should represent a **ten**-year outlook.

SCHEDULE 3, PART A and B: HISTORICAL AND PROJECTED DEMAND, CAPACITY, TRANSACTIONS, AND RESERVE MARGINS

GENERAL INSTRUCTIONS

- 1. PART A should be filled out for the summer seasonal peak. PART B should be filled out for the winter seasonal peak.
- 2. Please Note: as of 2011, all forecasts and projections should represent a ten-year outlook.
- 3. Enter demand and capacity for the summer (PART A) and winter (PART B) peak periods of the designated years for the NERC Region or subregion. Peak demands reported should agree with the corresponding entries in SCHEDULE 2, Part B.
- 4. Where capacity values are entered, values should accumulate through the ten year projection period. For example, following the table below, in 2011 "0" was added; in 2012 "100" was added; in 2013 "0" was added; in 2014 "100" was added; in 2015 "100" was added. For the 2011 base-case, by 2015 "300" is planned to be added. The example years given would be correct for data submitted during 2012.

YEAR	Actual	Year 1	Year 2	Year 3	Year 4
	(2011)	(2012)	(2013)	(2014)	(2015)
Planned Capacity	0	100	100	200	300

- 5. For demand and capacity values, all numbers should be entered as MW in positive values no negatives up to one decimal place. (All subtractions will be shown on the respective line found in the form).
- 6. For hydroelectric capacity, explain in SCHEDULE 9, COMMENTS whether the projected year's data are for an adverse water year, an average water year, or other.
- 7. For line 1, **Unrestricted Non-coincident Peak** Demand is the gross load of the region/sub-region, which includes New Conservation (Energy Efficiency) and Estimated Diversity; and excludes Additions for Non-member Loads and Stand-by Load Under Contract, as defined below.
 - For line 1a, **New Conservation (Energy Efficiency)**, enter the estimated impact of incremental passive energy efficiency programs. The increment represents the increase above the embedded amount from the base year. These impacts should be associated with programs to increase energy efficiency beyond its natural or normal growth. Report the expected capacity impacts (MW) during time of peak.

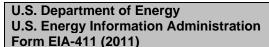
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- For line 1b, **Estimated Diversity**, enter the difference between the region's/subregion's peak and the sum of the peaks of the reporting entities (LSEs, balancing area, zones, etc.). The electric utility system's load is made up of many individual loads that may make demands upon the system at different times of the day. Within a customer class, the individual loads may follow similar usage patterns, but these classes place different demands upon the facilities and the system grid. The service requirements of one electrical system can differ from another by time-of-day usage, facility usage, and/or demands placed upon the system grid.
- For line 1c, Additions for Non-member Loads, enter adjustments to account for load
 of non-members, in accordance with the NERC Reliability Standard MOD-16 that
 "data submittal requirements shall stipulate that each Load Serving Entity count its
 Demand once and only once, on an aggregated and dispersed basis, in developing its
 actual and forecast customer Demand values."
- For line 1d, Stand-by Load Under Contract, enter the expected demand at time of system peak required to provide power and energy (under a contract with a customer as a secondary source or backup for an outage of the customer's primary source). Do not report the total (sum) of all contracted stand-by load. Additionally, do not separately report expected contract standby demand if it is already included in the forecasted peak data previously provided.
- 6. For line 2, Total Internal Demand, enter the sum of the metered (net) outputs of all generators within the system and the metered line flows into the system, less the metered line flows out of the system. The demands for station service or auxiliary needs (such as fan motors, pump motors, and other equipment essential to the operation of the generating units) are not included. Internal Demand includes adjustments for indirect demand-side management programs such as conservation programs, improvements in efficiency of electric energy use, all non-dispatchable demand response programs (such as Time-of-Use, Critical Peak Pricing, Real Time Pricing and System Peak Response Transmission Tariffs) and some dispatchable demand response (such as Demand Bidding and Buy-Back). Adjustments for controllable demand response should not be incorporated in this value. These values should equal those as reported in SCHEDULE 2, Part B, Seasonal Peak Hour Demand for the corresponding years.

For Lines 2a-2d, do not double count demand response for different Demand Response categories. All capacity should be counted once and only once and categorized as one for the four types of dispatchable and controllable Demand Response. Only report demand response here if the Region/subregion accounts for demand response as a load-reducing resource.

- For line 2a, Direct Control Load Management (Direct Load Control), enter the
 magnitude of customer demand that can be interrupted at the time of the seasonal
 peak load by direct control of a system operator by interrupting power supply to
 individual appliances or equipment on customer premises. This type of control usually
 reduces the demand of residential or small commercial customers. Direct Control
 Load Management (Direct Load Control) as reported here does not include
 Interruptible Demand (line 2b).
- For line 2b, Contractually Interruptible Demand (Curtailable), enter the magnitude of customer demand that, in accordance with contractual arrangements, can be interrupted at the time of the Region or subregion's seasonal peak by direct control of the system operator or by action of the customer at the direct request of the system operator. In some instances, the demand reduction may be effected by direct action of the system operator (remote tripping) after notice to the customer in accordance with contractual provisions. For example, demands that can be interrupted to fulfill planning or operating reserve requirements normally should be reported as Interruptible Demand. Contractually Interruptible Demand as reported here does not include Direct Control Load Management (line 2a).



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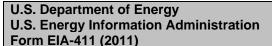
- For line 2c, Critical Peak Pricing (CPP) with Control, enter the magnitude of customer demand that, in accordance with contractual arrangements, can be interrupted at the time of the Regional Entity's seasonal peak by direct control of the system operator or by action of the customer by responding to high prices of energy triggered by system contingencies or high wholesale market prices.
- For line 2d, Load as a Capacity Resource, enter the magnitude of customer demand that, in accordance with contractual arrangements, is committed to pre-specified load reductions when called upon by a balancing authority. This demand response product is typically an aggregation of a variety of demand resources which must qualify to meet specific requirements aligned with traditional generating units (e.g., frequency response, responsive to AGC). These resources are not limited to being dispatched during system contingencies and may be subject to economic dispatch from balancing authorities. Additionally, this capacity may be used to meet resource adequacy obligations when determining planning reserve margins.
- 7. For line 3, **Net Internal Demand**, enter line 2, less line 2a, less line 2b, less 2c, less line 2d (Total Internal Demand, less Direct Control Load Management, Interruptible Demand, Critical Peak Pricing (CPP) with Control, and Load as a Capacity Resources).

For lines 4a-4d, enter the amount of Demand Response that can be called upon for the following types of Demand Response categories. Double counting is permitted here. For example, if an entity has 100 MW of Direct Load Control Demand Response, all 100 MW can be used for Non-Spinning Reserves, and 50 MW can be used for Spinning Reserves, enter 100 on line 2a, 100 on line 4b, and 50 on line 4a.

- 8. For line 4a, **Demand Response used for Reserves Spinning**, Enter demand-side resources which can displace generation deployed as operating reserves that are synchronized and ready to provide solutions for energy supply and demand imbalance within the first few minutes of an electric grid event.
- For line 4b, Demand Response used for Reserves Non-Spinning, enter demand-side resources, which can displace generation deployed as operating reserves that are not connected to the system but capable of serving demand within a specified time. Penalties are assessed for non-performance.
- For line 4c, **Demand Response used for Regulation**, enter demand-side resources which can be responsive to Automatic Generation Control (AGC) to provide normal regulating margin.
- 11. For line 4d, **Demand Response used for Energy, Voluntary Emergency**, enter demand-side resources, which curtail voluntarily when offered the opportunity to do so for compensation. Demand-side resources which curtail during system and/or local capacity constraints.

When determining categorization of supply resources, refer to the criteria listed within each supply category. Determine a supply resource's applicability to a category by assessing the criteria in each supply category in order of certainty (use logical progression). For example, first assess whether the resource falls into the Existing-Certain category. If the resource does not meet that criteria, assess the criteria of Existing-Other. If not, assess the criteria of Existing-Inoperable. If not, assess the criteria of Future-Planned. If not assess the criteria of Future-Other. If not, assess the criteria of Conceptual. A resource will qualify within a supply category if one or more of the listed criteria is true for that resource.

For supply definitions on this form, the criteria for each supply category is based on the "period of analysis", which refers to the reported seasonal peak, not the full year.



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- 12. For line 5, **Total Internal Capacity**, is the internal capacity for the reporting area. (Defined as seasonal rated capability during peak period where full availability of primary fuel, wind, and water is assumed.) The reported value should include capacity of all generators physically located and interconnected in the reporting area or planned to be physically located and interconnected in the reporting area, including the full capacity of those generators wholly or partially owned by (or with entitlement rights held by) entities outside of the reporting area. Additionally, where load is considered a capacity resource, this capacity is also included. This value is the summation of all Existing and Future Capacity Additions (Line 6 + Line 7).
- 13. For Line 6 Existing Capacity is the sum of all existing generation connected to the electric system for the purpose of supplying electric load during the seasonal peak. Existing capacity does not include generation serving customers behind the meter. This value is automatically calculated by the summations of all Existing Capacity (Line 6a + Line 6b + Line 6c).
- 14. For line 6a, Existing, Certain Capacity, included in this category are generation resources available to operate and deliver power within or into the region during the period of analysis in the assessment. Resources included in this category may be reported as a portion of the full capability of the resource, plant, or unit. This category includes, but is not limited to the following:
 - 1. Contracted (or firm) or other similar resource confirmed able to serve load during the period of analysis in the assessment.
 - 2. Where organized markets exist, designated market resource that is eligible to bid into a market or has been designated as a firm network resource.
 - 3. Network Resource, as that term is used in the Federal Energy Regulatory Commission (FERC) *pro forma* or other regulatory approved tariffs.
 - 4. Energy-only resources confirmed able to serve load during the period of analysis in the assessment and are not subject to curtailment
 - 5. Capacity resources that can not be sold elsewhere
 - 6. Other resources not included in the above categories that have been confirmed able to serve load and are not subject to curtailment during the period of analysis in the assessment

Do not derate this value by unplanned or "forced" outages. For Actual-Year data, unplanned outages are to be reported on line 6c1.

- For line 6a1, **Wind Expected On-Peak**, enter the amount of existing wind capacity that is expected to be available on the seasonal peak.
- For line 6a2, **Solar Expected On-Peak**, enter the amount of existing solar capacity that is expected to be available on the seasonal peak.
- For line 6a3, **Hydro Expected On-Peak**, enter the amount of existing hydro capacity that is expected to be available on the seasonal peak.
- For line 6a4, **Biomass Expected On-Peak**, enter the amount of existing biomass capacity that is expected to be available on the seasonal peak.
- For line 6a5, Demand Response Expected On-Peak (Load Management Programs), The total amount of Demand Response capacity that is expected to be available on the seasonal peak. Values reported on this line are treated as a capacity resource and are held to the same criteria as an Existing, Certain resource. Do not double count Demand Response capacity here if already provided in lines 2a-2d. Only report Demand Response here if your Region/subregion counts Demand Response as a supply resource, and not a load-reducing resource.
- 15. For line 6b, **Existing, Other Capacity**, included in this category are generation resources that may be available to operate and deliver power within or into the region during the period of analysis in the assessment, but may be curtailed or interrupted at any time for any reason. This category also includes portions of intermittent generation not included in 6a, Existing, Certain. This category includes, but is not limited to the following:
 - 1. A resource with non-firm or other similar transmission arrangements
 - 2. Energy-only resources that have been confirmed able to serve load for any reason during the Reporting Period, but may be curtailed for various reason.
 - 3. Mothballed generation (that may be returned to service during the period of analysis)
 - 4. Portions of variable generation not counted in the Existing, Certain category (e.g.

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wind, solar, etc.) that may not be available or de-rated during the period of analysis.

- 5. Hydro generation not counted as Existing, Certain or de-rated.
- 6. Generation resources constrained for other reasons.

Do not derate this value by unplanned or "forced" outages. For Actual-Year data, unplanned outages are to be reported on line 6c2.

- For line 6b1, **Wind Derated On-Peak**, enter the amount of existing wind capacity that is expected to be unavailable on seasonal peak.
- For line 6b2, **Solar Derated On-Peak**, enter the amount of existing solar capacity that is expected to be unavailable on seasonal peak.
- For line 6b3, **Hydro Derated On-Pea**k, enter the amount of existing hydro capacity that is expected to be unavailable on seasonal peak.
- For line 6b4, Biomass Derated On-Peak, enter the amount of existing biomass capacity that is expected to be unavailable on seasonal peak.
- For line 6b5, Load as a Capacity Resource Derated On-Peak (Load Management Programs), enter the amount of Load as a Capacity Resource that is expected to be unavailable on seasonal peak.
- For line 6b6, **Transmission-Limited Resources**, enter the amount of transmission-limited generation resources that have known physical deliverability limitations to serve load that they are obligated to serve.
- For line 6b7, **All Other Derates**, enter all other generation derates not reported in lines 6b1-6b6 that have known physical limitations during peak demand.
- For line 6b8, **Energy Only**, enter the amount of generating resources that are designated as energy-only resources or have elected to be classified as energy-only resources and may include generating capacity that can be delivered within the area but may be recallable to another area. Do not include any wind, solar, biomass, or hydro capacity in this category--instead report this capacity on the associated derate in lines 6b1-6b4. Energy only resources are designated as such if they are not classified as a network resource. Energy Only resources are classified as energy-only resources by the FERC interconnection process.
- 16. For line 6c, **Existing, Inoperable Capacity**, included in this category are generation resources that are out-of-service and cannot be brought back into service to serve load during the period of analysis in the assessment. However, this category can include inoperable resources that could return to service at some point in the future. This value may vary for future seasons and can be reported as zero (0). This includes ALL existing generation within a Region or subregion not included in line 6a, Existing, Certain. or line 6b, Existing, Other, but is not limited to, the following:
 - 1. Mothballed generation (that can not be returned to service for the period of the assessment)
 - 2. Other existing but out-of-service generation (that can not be returned to service for the period of the assessment)
 - 3. This category does not include behind-the-meter generation or non-connected emergency generators.
 - 4. This category does not include partially dismantled units that are not forecasted to return to service

For Actual Year values, unplanned or "forced" outage capacity is to be considered as Existing, Inoperable Capacity. Report these values on lines 6c1 and 6c2.

- For line 6c1, Existing, Certain Capacity Forced Outage on Peak, enter the unplanned or "forced" outage of generators in MW, which were out-of-service due to *any* failures at the absolute peak.
- For line 6c2, Existing, Other Capacity Forced Outage on Peak, enter the unplanned or "forced" outage of generators in MW, which were out-of-service due to **any** failures at the absolute peak.

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- 17. For line 7, **Future Capacity Additions**, included in this category are generation resources the reporting entity has a reasonable expectation of coming online during the period of the assessment. As such, to qualify in either of the Future categories, the resource must have achieved one or more of these milestones:
 - 1. Construction has started
 - 2. Regulatory permits (e.g. Site Permit, Construction Permit, Environmental Permit) being approved
 - 3. Regulatory approval has been received to be in the rate base
 - 4. Approved power purchase agreement
 - 5. Approved and/or designated as a resource by a market operator
- 18. For line 7a, **Future, Planned**, included in this category are generation resources anticipated to be available to operate and deliver power within or into the region during the period of analysis in the assessment. This category includes, but is not limited to, the following:
 - 1. Contracted (or firm) or other similar resource
 - 2. Where organized markets exist, designated market resource that is eligible to bid into a market or has been designated as a firm network resource.
 - Network Resource, as that term is used in FERC's pro forma or other regulatory approved tariffs.
 - 4. Energy-only resources confirmed able to serve load during the Reporting Period and will not be curtailed.
 - 5. Where applicable, included in an integrated resource plan under a regulatory framework that mandates resource adequacy requirements and an obligation to serve.

For this value, only enter the Net Expected On-Peak Values of Future-Planned resources. Do not include derates.

- For line 7a1, **Wind Expected On-Peak**, enter the amount planned wind capacity that is expected to be available on seasonal peak.
- For line 7a2, **Wind Derate On-Peak**, enter the amount planned wind capacity that is expected to be unavailable on seasonal peak.
- For line 7a3, **Solar Expected On-Peak**, enter the amount planned solar capacity that is expected to be available on seasonal peak.
- For line 7a4, **Solar Derate On-Peak**, enter the amount planned solar capacity that is expected to be unavailable on seasonal peak.
- For line 7a5, **Hydro Expected On-Peak**, enter the amount planned hydro capacity that is expected to be available on seasonal peak.
- For line 7a6, **Hydro Derate On-Peak**, enter the amount planned hydro capacity that is expected to be unavailable on seasonal peak.
- For line 7a7, **Biomass Expected On-Peak**, enter the amount planned biomass capacity that is expected to be available on seasonal peak.
- For line 7a8, **Biomass Derate On-Peak**, enter the amount planned biomass capacity that is expected to be unavailable on seasonal peak.
- For line 7a9, **Demand Response Expected On-Peak (Load Management Programs)**, The total amount of Demand Response capacity that is expected to be available on seasonal peak. Values reported on this line are treated as a capacity resource and are held to the same criteria as a Future-Planned resource. Do not double count Demand Response capacity here if already provided in lines 2a-2d. Only report Demand Response here if your Region/subregion counts Demand Response as a supply resource.
- For line 7a10, **Demand Response Derate On-Peak (Load Management Programs)**, The total amount of Demand Response capacity that is expected to not be available on seasonal peak. Do not double count Demand Response capacity here if already provided in lines 2a-2d.
- For line 7a11, Transmission-Limited Resources, enter amount of transmission-limited generation resources that have known physical deliverability limitations to serve load that they are obligated to serve. This value may represent a change

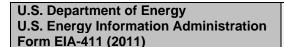
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- (+/-) in existing transmission-limited resources. The change in capacity is classified as Future-Planned.
- For line 7a12, Scheduled Outage Maintenance, enter the amount of capacity reductions due to a generator outage that is scheduled well in advance and is of a predetermined duration. This scheduled outage is classified as Future-Planned capacity.
- For line 7a13, **All Other Derates**, enter all other generation derates not reported in lines above that have known physical limitations during peak demand.
- For line 7a14, **Energy Only**, enter the amount of generating resources that are designated as energy-only resources or have elected to be classified as energy-only resources and may include generating capacity that can be delivered within the area but may be recallable to another area. Do not include any wind, solar, biomass, or hydro capacity in this category--instead report this capacity on the associated derate in lines above. Energy only resources are designated as such if they are not classified as a network resource. Energy Only resources are classified as energy-only resources by the FERC interconnection process.
- 19. For line 7b, **Future**, **Other**, included in this category are generation resources that do not qualify as Future, Planned and are not included in the Conceptual category. This category includes, but is not limited to, generation resources during the period of analysis in the assessment that may:
 - 1. Be curtailed or interrupted at any time for any reason
 - 2. Energy-only resources that may be able to serve load during the period of analysis
 - 3. Variable generation not counted in the Future, Planned category or may not be available or is de-rated during the period of analysis
 - 4. Hydro generation not counted in the Future, Planned category or de-rated.

Resources included in this category may be adjusted using a confidence factor to reflect uncertainties associated with siting, project development or queue position. The confidence factor for Future, Other resources should be entered on line 16a and only adjusts the expected on-peak values and not the derated values.

- For line 7b1, **Wind Expected On-Peak**, enter the amount planned wind capacity that is expected to be available on seasonal peak.
- For line 7b2, **Wind Derate On-Peak**, enter the amount proposed wind capacity that is expected to be unavailable on seasonal peak.
- For line 7b3, **Solar Expected On-Peak**, enter the amount planned solar capacity that is expected to be available on seasonal peak.
- For line 7b4, **Solar Derate On-Peak**, enter the amount proposed solar capacity that is expected to be unavailable on seasonal peak.
- For line 7b5, **Hydro Expected On-Peak**, enter the amount planned hydro capacity that is expected to be available on seasonal peak.
- For line 7b6, **Hydro Derate On-Peak**, enter the amount proposed hydro capacity that is expected to be unavailable on seasonal peak.
- For line 7b7, **Biomass Expected On-Peak**, enter the amount planned biomass capacity that is expected to be available on seasonal peak.
- For line 7b8, **Biomass Derate On-Peak**, enter the amount proposed biomass capacity that is expected to be unavailable on seasonal peak.
- For line 7b9, Energy Only, enter the amount of generating resources that are
 designated as energy-only resources or have elected to be classified as energy
 only resources and may include generating capacity that can be delivered within
 the area but may be recallable to another area.
- For line 7b10, Scheduled Outage Maintenance, enter the amount of capacity reductions due to a generator outage that is scheduled well in advance and is of a predetermined duration. This scheduled outage is classified as Future-Planned capacity.
- For line 7b11, **All Other Derates**, enter all other generation derates not reported in lines above that have known physical limitations during peak demand.



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- For line 7b12, Energy Only, enter the amount of generating resources that are designated as energy-only resources or have elected to be classified as energy-only resources and may include generating capacity that can be delivered within the area but may be recallable to another area. Do not include any wind, solar, biomass, or hydro capacity in this category--instead report this capacity on the associated derate in lines above. Energy only resources are designated as such if they are not classified as a network resource. Energy Only resources are classified as energy-only resources by the FERC interconnection process.
- 20. For line 8, **Conceptual**, included in this category are generation resources that are not in a prior listed category, but have been identified and/or announced on a resource planning basis through one or more of the following sources:
 - 1. Corporate announcement
 - 2. Entered into or is in the early stages of an approval process
 - 3. Is in a generator interconnection (or other) queue for study
 - 4. "Placeholder" generation for use in modeling.

For this value, only enter the Net Expected On-Peak Value. Do not include derates or energy only.

Resources included in this category may be adjusted using a confidence factor to reflect uncertainties associated with siting, project development or queue position. The confidence factor for Conceptual resources should be entered on line 16c and only adjusts the expected on-peak values and not the derated values.

- For line 8a1, Wind Expected On-Peak, enter the amount planned wind capacity that is expected to be available on seasonal peak.
- For line 8a2, **Wind Derate On-Peak**, enter the amount proposed wind capacity that is expected to be unavailable on seasonal peak.
- For line 8a3, **Solar Expected On-Peak**, enter the amount planned solar capacity that is expected to be available on seasonal peak.
- For line 8a4, **Solar Derate On-Peak**, enter the amount proposed solar capacity that is expected to be unavailable on seasonal peak.
- For line 8a5, **Hydro Expected On-Peak**, enter the amount planned hydro capacity that is expected to be available on seasonal peak.
- For line 8a6, **Hydro Derate On-Peak**, enter the amount proposed hydro capacity that is expected to be unavailable on seasonal peak.
- For line 8a7, **Biomass Expected On-Peak**, enter the amount planned biomass capacity that is expected to be available on seasonal peak.
- For line 8a8, **Biomass Derate On-Peak**, enter the amount proposed biomass capacity that is expected to be unavailable on seasonal peak.
- For line 8a9, **Energy-Only**, enter the amount of generating resources that are designated as energy-only resources or have elected to be classified as energy only resources and may include generating capacity that can be delivered within the area but may be recallable to another area.
- 21. For line 9, **Anticipated Internal Capacity**, this value is automatically calculated by the summations of Existing, Certain and Future, Planned Capacity Additions (Line 6a + Line 7a)

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NOTES FOR TRANSACTIONS:

Contracts for capacity are defined as an agreement between two or more parties for the Purchase (Import) and Sale (Export) of generating capacity. Purchase contracts refer to imported capacity that is transmitted from an outside Region or subregion to the reporting Region or subregion. Sales contracts refer to exported capacity that is transmitted from the reporting Region or subregion to an outside Region or subregion. For example, if a generating resource subject to a contract is located in one region and sold to another region, the region in which the resource is located reports the capacity of the resource and reports the sale of such capacity that is being sold to the outside region. The importing region reports such capacity as an import, and **does not** report the capacity as a supply resource (in line 6, 7, or 8).

TRANSMISSION CAPACITY MUST BE AVAILABLE FOR ALL REPORTED IMPORT AND EXPORT TRANSACTIONS.

DO NOT INCLUDE TRANSMISSION SYSTEM LOSSES WHEN REPORTING IMPORTS AND EXPORTS TRANSACTIONS.

The following examples are provided to show how unit-specific transactions are handled between two or more reporting Regions or subregions for Imports and Exports:

1. Unit physically located in Area A that is fully owned by a company in Area B and not connected to the Area A network but instead has a direct and adequate transmission connect to the Area A.

Solution: Show the unit completely in Area B with no transfers. All derating accounted for in Region or Province B.

2. Unit physically located in Area A that is half owned by a company in Area B.

Solution: Show the unit completely in Area A with an export to Area B of half of the capacity. Area B would show an import of half of the capacity from Area A, as long as Area A & B can demonstrate adequate transmission capacity. Unit derating accounted for in Area A and export reduced by half of the derated amount.

3. Unit physically located in Area A that is fully owned by a company in Area B.

Solution: Show the unit completely in Area A with an export to Area B of the full amount. Area B would show an import of the full amount of capacity from Area A, as long as Area A & B can demonstrate adequate transmission capacity. Unit derating should be accounted for in Area A and the import and export reduced by derated amounts in both Areas.

4. Unit physically located in Area A that is fully owned by a company in Area C and "wheeled" through Area B.

Solution: Show the unit completely in Area A with an export to Area C of the full amount. Area B does not report either import or export. Area C would show an import of the full amount of capacity from Area A, as long as Areas A, B, and C can demonstrate adequate transmission capacity.

- For line 10, Capacity Transactions Imports, the sum of lines 10a through 10d.
- 23. For line 10a, **Firm**, enter the amount of capacity purchases for which a firm contract has been signed. These transactions will be associated with Existing Certain Capacity.
 - For line 10a1, Full Responsibility Purchases Enter the total of all purchases for which the seller is contractually obligated to deliver power and energy to the purchaser with the same degree of reliability as provided to the seller's own native load customers. Each purchaser and seller must agree on which of their transactions are reported under this heading. Values reported on this line represent a portion of Line 10a Firm.

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- For line 10a2, Owned Capacity/Entitlement Located Outside the Region/subregion – Enter the amount of externally owned capacity or capacity entitlements that will move from an outside Region or subregion to the reporting Region or subregion. Values reported on this line represent a portion of Line 10a – Firm.
- 24. For line 10b, **Non-firm**, enter the amount of capacity purchases for which a non-firm contract has been signed. This value should only be entered for the previous year actual data.
- 25. For line 10c, **Expected**, enter the amount of capacity for which a contract has not been executed, but in negotiation, projected, or other. These transactions will be associated with Planned Capacity Additions.
 - For line 10c1, **Full Responsibility Purchases** Enter the total of all purchases for which the seller is contractually obligated to deliver power and energy to the purchaser with the same degree of reliability as provided to the seller's own native load customers. Each purchaser and seller must agree on which of their transactions are reported under this heading. Values reported on this line represent a portion of Line 10c Expected.
 - For line 10c2, **Owned Capacity/Entitlement Located Outside the Region/subregion** Enter the amount of externally owned capacity or capacity entitlements that will move from an outside Region or subregion to the reporting Region or subregion. Values reported on this line represent a portion of Line 10c Expected.
- 26. For line 10d, **Provisional**, enter the amount of capacity for which the transaction(s) is under study, but negotiations have not begun.
- 27. For line 11, Capacity Transactions Exports, the sum of lines 11a through 11d.
- 28. For line 11a, **Firm**, enter the amount of capacity purchases for which a firm contract has been signed. These transactions will be associated with Existing Certain Capacity.
 - For line 11a1, Full Responsibility Sales Enter the total of all purchases for which the seller is contractually obligated to deliver power and energy to the purchaser with the same degree of reliability as provided to the seller's own native load customers. Each purchaser and seller must agree on which of their transactions are reported under this heading. Values reported on this line represent a portion of Line 11a – Firm.
 - For line 11a2, Owned Capacity/Entitlement Located Outside the Region/subregion - Enter the amount of externally owned capacity or capacity entitlements that will move from the reporting Region or subregion to an outside Region or subregion. Values reported on this line represent a portion of Line 11a – Firm.
- 29. For line 11b, **Non-firm**, enter the amount of capacity purchases for which a non-firm contract has been signed. This value should only be entered for the previous year actual data.
- 30. For line 11c, **Expected**, enter the amount of capacity for which a contract has not been executed, but in negotiation, projected, or other. These transactions will be associated with Planned Capacity Additions.
 - For line 11c1, Full Responsibility Sales Enter the total of all purchases for which the seller is contractually obligated to deliver power and energy to the purchaser with the same degree of reliability as provided to the seller's own native load customers. Each purchaser and seller must agree on which of their transactions are reported under this heading. Values reported on this line represent a portion of Line 11c - Expected.
 - For line 11c2, Owned Capacity/Entitlement Located Outside the Region/subregion - Enter the amount of externally owned capacity or capacity entitlements that will move from the reporting Region or subregion to an outside Region or subregion. Values reported on this line represent a portion of Line 11c – Expected.
- 31. For line 11d, **Provisional**, enter the amount of capacity for which the transaction(s) is under study, but negotiations have not begun.

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NOTES FOR MARGIN CALCULATIONS:

Lines 12-15a are calculated automatically and represent the amount of capacity (generating supply and transactions) that will be counted towards margin calculations.

- 32. For line 12, **Existing, Certain and Net Firm Transactions** is calculated by the summation of Existing, Certain Capacity and the net of Firm Transactions
- 33. For line 13, **Anticipated Capacity Resources** is calculated by the summation of **Anticipated** Internal Capacity and the net of Firm and Expected Transactions. For the general public, this is the equivalent of "Planned Capacity Resources" on the older versions of this form.
- 34. For line 14, **Prospective Capacity Resources** is calculated by the summation of Anticipated Capacity Resources, Existing, Other Capacity, and the adjusted Future, Other Capacity (For this calculation, Future, Other resources are adjusted using the confidence factor reported on line 16a. This amount is automatically calculated in line 16b). All derates and outages are subtracted from this calculation.
- 35. For line 15, **Potential Capacity Resources** is calculated by the summation of Anticipated Capacity Resources, Existing, Other Capacity, Future, Other Capacity, Conceptual Capacity, and the net of Provisional Transactions. All derates and outages are subtracted from this calculation.
- 36. For line 15a, **Adjusted Potential Capacity Resources** is calculated by the summation of Prospective Capacity Resources, the adjusted Conceptual Capacity (For this calculation, Conceptual Resources are adjusted using the confidence factor reported on line 16c. This amount is automatically calculated in line 16d.) and the net of Provisional Transactions. All derates and outages are subtracted from this calculation.
- 37. For line 16a, **Confidence of Future, Other Resources** (line 7b), using reasonable judgment, enter a value between 0 and 100 that corresponds to the weight of emphasis placed on Future, Other additions for the given year. This factor only adjusts the expected on peak values.
- 38. For line 16b, **Net Future, Other Resources After Confidence Percentage Is Applied**, line 7b times line 16a.
- 39. For line 16c, **Confidence of Conceptual Resources** (line 8), using reasonable judgment, enter a value between 0 and 100 that corresponds to the weight of emphasis placed on Conceptual additions for the given year. This factor only adjusts the expected on peak values.
- 40. For line 16d, **Net Conceptual Resources After Confidence Percentage Is Applied**, line 8 times line 16c.
- 41. For line 17, **Target Reserve Margin**, enter a value between 0 and 100 that represents the expected target margin (%) set by the Region/subregion. If no value is entered, a reference margin level will be applied and it is assumed this value will remain constant throughout the reporting period.

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NOTES FOR MARGINS:

Capacity margin (C) and reserve margins (R) calculations are computed by NERC and submitted on behalf of the Region or subregion.

- 42. For line 18, Existing Certain and Net Firm Transactions, take the difference between line 12 and line 3. Divide by line 3 for the reserve margin and divide by line 12 for the capacity margin.
- 43. For line 19, **Anticipated Capacity Resources**, take the difference between line 13 and line 3. Divide by line 3 for the reserve margin and divide by line 13 for the capacity margin.
- 44. For line 20, **Prospective Capacity Resources**, take the difference between line 14 and line 3. Divide by line 3 for the reserve margin and divide by line 14 for the capacity margin.
- 45. For line 21, **Total Potential Resources**, take the difference between line 15 and line 3. Divide by line 3 for the reserve margin and divide by line 15 for the capacity margin.
- 46. For line 22, **Adjusted Potential Resources**, take the difference between line 15a and line 3. Divide by line 3 for the reserve margin and divide by line 15a for the capacity margin.

NOTES FOR LINES 23, 24, AND 25:

This information comes from other EIA data collection (Form EIA-860 and Form EIA-861), and NERC is not obligated to supply this information. These categories are placed here for informational purposes so that the public will be aware of other capacity, which may need to be included in some analyses. The public can acquire this information from the EIA websites for the forms listed above.

SCHEDULE 5. BULK ELECTRIC TRANSMISSION SYSTEM MAPS

- 1. Each Regional Entity is to submit a map(s), in electronic format, showing the existing bulk electric transmission system 100 kV and above, including ties to all other Regional Entities, and the bulk electric transmission system additions projected for a ten-year period beginning with the year following the reporting year. The submission of Computer-Aided Design and/or Computer-Aided Design and Drafting (CAD/CADD) file types is also allowed.
- 2. Only major geographic features and State boundaries, bulk electric facilities, and the names of major metropolitan areas need be shown. The map scale to be used is left to the discretion of the Regional Entity or Reporting Party, but should be such as to allow convenient use of the map. Show the voltage level of all bulk electric transmission lines. The year of installation of all projected system additions may be shown at the option of the Regional Entity or Reporting Party.
- 3. The map requirement may be satisfied by either:
 - (a) A single map in electronic format showing the existing bulk electric transmission system as of January 1 of the reporting year and system additions for a ten-year period beginning with the reporting year; or
 - (b) Separate maps for a set of subregions that comprise the whole region.
- 4. For Line 1, enter the number of maps provided.
- 5. For Line 2, enter the requested map information in columns (a) through (d).

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SCHEDULE 6 PART A & B: EXISTING AND PROJECTED TRANSMISSION CIRCUIT MILES AND CHARACTERISTICS OF PROJECTED TRANSMISSION ADDITIONS

PART A: Existing Transmission Circuit Miles

1. For the following lines, report transmission lines in WHOLE number circuit miles for the specified voltages:

Operative Voltage Range(kV)	Voltage Type	
100-120	AC	
121-150	AC	
151-199	AC	
100-299		DC
200-299	AC	
300-399	AC	DC
400-599	AC	DC
600+	AC	DC

- 2. All transmission lines must be classified into one of the following categories:
 - Existing
 - Energized line available for transmitting power
 - Under Construction
 - o Construction of the line has begun
 - Planned (any of the following)
 - o Permits have been approved to proceed
 - o Design is complete
 - Needed in order to meet a regulatory requirement
 - Conceptual (any of the following)
 - o A line projected in the transmission plan
 - A line that is required to meet a NERC TPL Standard or powerflow model and cannot be categorized as "Under Construction" or "Planned"
 - Projected transmission lines that are not "Under Construction" or "Planned"
- 3. For line 1, report Existing transmission lines as of the last day in the prior reporting year. (For example, the 2011 Report Year, enter the amount of circuit miles existing as of 12/31/2010.)
- 4. For line 2, report Under Construction transmission lines as of the first day in the current reporting year. (For example, the 2011 Report Year, enter the amount of circuit miles existing as of 1/1/2011.)
- 5. For line 3, report Planned transmission lines to be completed within the first 5 years starting the first day in the current reporting year.
- 6. For line 4, report Conceptual transmission lines to be completed within the first 5 years starting the first day in the current reporting year.
- 7. For line 5, report Planned transmission lines to be completed within the second 5 years starting the first day of the 5th projection year.
- 8. For line 6, report Conceptual transmission lines to be completed within the second 5 years starting the first day of the 5th projection year.
- 9. For line 7, report the sum of all Existing, Under Construction, and Planned transmission line circuit miles for the ten year projection period.
- 10. For line 8, report the sum of all Existing, Under Construction, Planned, and Conceptual transmission line circuit miles for the ten year projection period.

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PART B: Characteristics of Projected Transmission Line Additions

- 1. This SCHEDULE must be completed by each Regional Entity for all transmission line additions at 100 kV and above projected for the ten-year period beginning with the first day of the current reporting year.
- 2. For transmission classified as Conceptual, the assumptions used during the transmission planning process and in the planning models are to be reported in this schedule.
- 3. For line 1, Project Name, enter the project name
- 4. For line 2, Project Status, enter the level of certainty defined by the following criteria:
 - Under Construction
 - o Construction of the line has begun
 - Planned (any of the following)
 - o Permits have been approved to proceed
 - o Design is complete
 - Needed in order to meet a regulatory requirement
 - Conceptual (any of the following)
 - o A line projected in the transmission plan
 - A line that is required to meet a NERC TPL Standard or powerflow model and cannot be categorized as "Under Construction" or "Planned"
 - o Projected transmission lines that are not "Under Construction" or "Planned"
- 5. For line 3, **Tie line**, specify whether this addition interconnects Balancing Authorities (YES/NO).
- 6. For line 4a & 4b, **Primary** and **Secondary Driver**, specify drivers from the following list:
 - Reliability
 - Generation integration
 - Variable/Renewable (identify by source or combination of sources)
 - Nuclear
 - Fossil-Fired (identify by source or combination of sources)
 - Hydro
 - Congestion Relief
 - Other (please specify in Schedule 9, Comments)
- 7. For line 5, **Terminal Location (From)**, enter the name of the beginning terminal point of the line
- 8. For line 6, **Terminal Location (To)**, enter the name of the ending terminal point of the line.
- 9. For line 7, **Company Name**, enter the company name.
- 10. For line 8, **EIA Company Code**, identify each organization by the six-character code assigned by EIA.
- 11. For line 9, **Type of Organization**, identify the type of organization that best represents the line owner including the following types of utilities Investor-owned (I), Municipality (M), Cooperative (C), State-owned (S), Federally-owned (F), or other (O).
- 12. For line 10, **Percent Ownership**, if the transmission line will be jointly-owned, enter the percentages owned by each transmission owner.
- 13. For line 11, Circuit **Line Length**, enter the number of circuit line miles between the beginning and ending terminal points of the line.
- 14. For line 12, **Line Type**, select physical location of the line conductor overhead (OH), underground (UG), or submarine (SM).
- 15. For line 13, **Voltage Type**, select voltage as alternating current (AC) or direct current (DC).
- 16. For line 14, **Voltage Operating**, enter the voltage at which the line will be normally operated in kilovolts (kV).
- 17. For line 15, **Voltage Design**, enter the voltage at which the line is designed to operate in kilovolts (kV).
- 18. For line 16, **Conductor Size**, enter the size of the line conductor in thousands of circular mils (MCM).

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- 19. For line 17, **Conductor Material Type**, enter the line conductor material type aluminum, ACCR, ACSR, copper, superconductor, or other.
- 20. For line 18, **Bundling Arrangement**, enter the bundling arrangement/configuration of the line conductors single, double, triple, quadruple, or other.
- 21. For line 19, **Circuits per Structure Present**, enter the current number of three-phase circuits on the structures of the line.
- 22. For line 20, **Circuits per Structure Ultimate**, enter the ultimate number of three-phase circuits that the structures of the line are designed to accommodate.
- 23. For line 21, **Pole/Tower Type**, identify the predominant pole/tower material for the line wood, concrete, steel, combination, composite material, or other. Also include the type of structure single pole, H-frame structure, tower, underground, or other.
- 24. For line 22, **Capacity Rating**, enter the normal load-carrying capacity of the line in millions of volt-amperes (MVA).
- 25. For line 23, **Original In-Service Date**, enter the originally projected date the line was to be energized under the control of the system operator.
- 26. For line 24, **Expected In-Service Date**, enter the currently projected date the line will be energized under the control of the system operator.
- 27. For line 25, Line Delayed, enter "Y" if the line has been delayed and "N" if it has not.
- 28. For line 26, Cause of Delay, if the line has been delayed, enter the cause.

SCHEDULE 7. ANNUAL DATA ON TRANSMISSION LINE OUTAGES FOR EHV LINES, GENERAL INSTRUCTIONS FOR PARTS A, B, C, and D

Outages are defined below for purposes of reporting on this schedule and are intended to be consistent with the instructions and definitions in the NERC Transmission Availability Data System (TADS) Data Reporting Instruction Manual and TADS Definitions (Appendix 7 of the Instructions) at http://www.nerc.com/page.php?cid=4|62 An Element includes certain specified voltage classes of AC Circuits, DC Circuits, and Transformers. An In-Service State means an Element that is energized and connected at all its terminals to the system.

Outages that occur on intertie lines between regions are to be reported only once by one or the other of the reporting regions. Outages on lines that cross international borders must be reported.

Automatic Outages

An **Automatic Outage** is an outage which results from the automatic operation of a switching device, causing an Element to change from an In-Service State to a not In-Service State. A successful AC single-pole (phase) reclosing event is not an Automatic Outage. If practices are different from this, please note in SCHEDULE 9 Comments.

- A Sustained Outage is an Automatic Outage with an Outage Duration of a minute or greater.
- A **Momentary Outage** is an Automatic Outage with an Outage Duration of less than one (1) minute. Momentary outages <u>should not be included</u>.

An **Event** is a transmission incident that results in the Automatic Outage (Sustained or Momentary) of one or more Elements.

Non-Automatic Outages

A **Non-Automatic Outage** is an outage which results from the manual operation (including supervisory control) of a switching device, causing an Element to change from an In-Service State to a not In-Service State. If practices are different from this, please note in SCHEDULE 9 Comments.

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- A Planned Outage is a Non-Automatic Outage with advance notice for the purpose of maintenance, construction, inspection, testing, or planned activities by third parties that may be deferred. Outages of Elements of 30 minutes or less in duration resulting from switching steps or sequences that are performed in preparation for or restoration from an outage of another Element are not reportable.
- An **Operational Outage** is a Non-Automatic Outage for the purpose of avoiding an emergency (i.e., risk to human life, damage to equipment, damage to property) or to maintain the system within operational limits and that cannot be deferred.

Automatic Outage Causes

- Weather, excluding lightning, covers all outages in which severe weather conditions (snow, extreme temperature, rain, tornado, hurricane, ice, high winds, etc.) are the primary cause of the outage, with the exception of lightning. This includes flying debris caused by wind.
- Lightning
- **Environmental,** includes environmental conditions such as earth movement (earthquake, subsidence, earth slide), flood, geomagnetic storm, or avalanche.
- **Foreign Interference,** includes objects such as aircraft, machinery, vehicles, kites, events where animal movement or nesting impacts electrical operations, flying debris not caused by wind, and falling conductors from one line into another.
- **Contamination**, covers outages caused by bird droppings, dust, corrosion, salt spray, industrial pollution, smog, or ash.
- Fire, includes outages caused by fire or smoke.
- Vandalism, Terrorism, or Malicious Acts, includes intentional activity such as gunshots, removed bolts, or bombs.
- Failed AC Substation Equipment, includes equipment inside the substation fence, but excludes protection system equipment.
- Failed AC/DC Terminal Equipment, includes equipment inside the terminal fence, including power-line carrier filters, AC filters, reactors and capacitors, transformers, DC valves, smoothing reactors, and DC filters. This excludes protection system equipment.
- Failed Protection System Equipment, includes any relay and/or control misoperations except those that are caused by incorrect relay or control settings that do not coordinate with other protective devices (these should be categorized as Human Error)
- Failed AC Circuit Equipment, includes overhead or underground equipment outside the substation fence.
- Failed DC Circuit Equipment, includes equipment outside the terminal fence.
- Human Error, covers any incorrect action traceable to employees and/or contractors for companies operating, maintaining, and/or providing assistance to the utility. This includes any human failure or interpretation of standard industry practices and guidelines that cause an outage.
- **Power System Condition,** include instability, overload trip, out-of-step, abnormal voltage, abnormal frequency, or unique system configurations.
- **Vegetation**, includes outages initiated by vegetation in the proximity of transmission facilities. Reporting definition will be consistent with the NERC template and vegetation management criteria.
- **Unknown**, any unknown causes should be reported in this category.
- Other, includes outages for which the cause is known; however, the cause is not included in the above list.

Non-Automatic, Operational Outage Causes

- **Emergency**, includes outages taken to avoid risk to human life, damage to equipment, damage to property, or similar threatening consequences
- System Voltage Limit Mitigation, covers outages taken to maintain the voltage on the transmission system within desired levels (i.e., voltage control).
- System Operating Limit Mitigation, (excluding voltage limit mitigation) covers outages

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taken to keep the transmission system within System Operating Limits, including facility ratings, transient stability ratings, and voltage stability ratings covering MW, MVar, Amperes, Frequency, or Volts.

• Other Operational Outage, includes all other causes, including human error.

Non-Automatic, Planned Outage Causes

- Maintenance and Construction covers any planned outage associated with maintenance and construction of electric facilities, including testing.
- Third Party Requests, covers outages taken at the request of a third party such as highway department, Coast Guard, etc.
- Other Planned Outage, includes all other causes, including human error.

PART A: Annual Data on AC Transmission Line Outages

- 1. All transmission line outages involving Extra High Voltage (EHV) **AC Circuit Elements** of 200 kV and above are to be aggregated by each Regional Entity and reported on this schedule.
- 2. For the appropriate outage type (Automatic; Non-Automatic, Planned; or Non-Automatic, Operational), enter the following:
 - **Number of Outages** (lines 2, 5, and 8), report the total number of outages that occurred in the reporting period for each voltage class.
 - Number of Circuit-Hours Out of Service (lines 3, 6, and 9), report the total circuit-hours out of service for all of the outages for each voltage class during the year. This is the sum across all circuits of the number of hours each circuit was not in an In-Service State during the reporting period.
 - Outage Cause (lines 4, 7, and 10), report the number of outages by the pertinent cause code, as listed above. For Automatic Outages, report the number of outages for both the Initiating Cause and the Sustained Cause. For the Sustained Cause, use the Cause Code that describes the cause that contributed to the longest duration of the outage.

PART B: Annual Data on DC Transmission Line Outages

- 3. All transmission line outages involving Extra High Voltage (EHV) **DC Circuit Elements** of ±100 kV and above are to be aggregated by each Regional Entity and reported on this schedule.
- 4. For the appropriate outage type (Automatic; Non-Automatic, Planned; or Non-Automatic, Operational), enter the following:
 - **Number of Outages** (lines 2, 5, and 8), report the total number of outages that occurred in the reporting period for each voltage class.
 - Number of Circuit-Hours Out of Service (lines 3, 6, and 9), report the total circuit-hours out of service for all of the outages for each voltage class during the year. This is the sum across all circuits of the number of hours each circuit was not in an In-Service State during the reporting period.
 - Outage Cause (lines 4, 7, and 10), report the number of outages by the pertinent cause code, as listed above. For Automatic outages, report the number of outages for both the Initiating Cause and the Sustained Cause. For the Sustained Cause, use the Cause Code that describes the cause that contributed to the longest duration of the outage.

PART C: Annual Data on Transformer Outages

- 5. All transformer outages involving **Transformer Elements** with a <u>low-side voltage</u> of ≥200 kV are to be aggregated by each Regional Entity and reported on this schedule.
- 6. For the appropriate outage type (Automatic; Non-Automatic, Planned; or Non-Automatic, Operational), enter the following:
 - Number of Outages (lines 2, 5, and 8), report the total number of outages that occurred in the reporting period for each voltage class based on the <u>high-side voltage</u> of the

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transformer.

- Number of Transformer-Hours Out of Service (lines 3, 6, and 9), report the total transformer-hours out of service for all of the outages for each voltage class (by high-side voltage) during the year. This is the sum across all transformers of the number of hours each transformer was not in an In-Service State during the reporting period.
- Outage Cause (lines 4, 7, and 10), report the number of outages by the pertinent cause code, as listed above. For Automatic outages, report the number of outages for both the Initiating Cause and the Sustained Cause. For the Sustained Cause, use the Cause Code that describes the cause that contributed to the longest duration of the outage.

PART D: Element Inventory and Event Summary

The **Element** inventory data collected on Part D can be used to normalize the outage data collected on Parts A, B, and C. The Event summary data can be used to compare with outage totals collected on Parts A, B, and C.

- 1. For line 1, report in accordance with the applicable voltage class indicated..
- 2. For line 2, an AC Circuit is a set of overhead or underground three-phase conductors that are bound by AC substations. Radial circuits are AC Circuits.
- 3. For line 2a, enter the **Number of Overhead AC Circuits** in each voltage class.
- 4. For line 2b, enter the **Number of Underground AC Circuits** in each voltage class.
- 5. For line 3, an AC Circuit Mile is one mile of a set of three-phase AC conductors in an Overhead or Underground AC Circuit
- 6. For line 3a, enter the **Number of Overhead AC Circuit Miles** in each voltage class.
- 7. For line 3b, enter the **Number of Underground AC Circuit Miles** in each voltage class.
- 8. For line 4, enter the **Number of Multi-Circuit Structure Miles** in each voltage class. A Multi-Circuit Structure Mile is a one-mile linear distance of sequential structures carrying multiple Overhead AC Circuits. (Note: this definition is *not* the same as the industry term "structure mile." A Transmission Owner's Multi-Circuit Structure Miles will generally be less than its structure miles since not all structures contain multiple circuits.)
- 9. For line 5, report in accordance with the applicable voltage class indicated.
- 10. For line 6, a DC circuit is one pole of an overhead or underground line which is bound by an AC/DC Terminal on each end.
- 11. For line 6a enter the Number of Overhead DC Circuits in each voltage class.
- 12. For line 6b, enter the **Number of Underground DC Circuits** in each voltage class.
- 13. For line 7, a DC Circuit Mile is one mile of one pole of a DC Circuit.
- 14. For line 7a, enter the Number of Overhead DC Circuit Miles in each voltage class.
- 15. For line 7b, enter the Number of Underground DC Circuit Miles in each voltage class.
- 16. For line 8, report in accordance with the applicable voltage class indicated based on the high-side voltage of the Transformer. Note: To be reported on this form, the Transformer must have a low-side voltage ≥200 kV.
- 17. For line 9, enter the **Number of Transformers** in each voltage class. A Transformer is a bank of three single-phase transformers or a single three-phase transformer. A Transformer is bounded by its associated switching or interrupting devices.
- 18. For line 10, enter the total annual **Number of Events** associated with the outages reported on Schedules 7A, 7B, and 7C.

SCHEDULE 8. BULK TRANSMISSION FACILITY POWER FLOW CASES

- Each Regional Entity is to coordinate the collection of data on basic electrical data and power flow information on prospective new bulk transmission facilities of 100 kV and above (including lines, transformers, HVDC terminal facilities, phase shifters, and static VAR compensators) that have been approved for construction and are scheduled to be energized over the next two years.
- 2. If the prospective bulk transmission facilities are represented in the respondent's current FERC Form 715 submission, please provide a copy of an annual peak load power flow case

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submitted which represents a period of at least two years into the future and complete (see Instructions 6 through 13).

- 3. If the facilities are not represented in the respondent's current FERC Form 715 submission, please submit a power flow case(s) representing the prospective facilities. The respondent may submit a single annual peak load power flow case that includes all prospective facilities to be energized in the next two years. Alternatively, the respondent may provide a copy of any annual peak load power flow case that includes the new facility for the year it is to be energized. If more than one facility is to be energized in a given year, it is acceptable to provide a single annual peak load power flow case that includes all the new facilities added in that year. The power flow shall be in the same format as used for the respondent's FERC Form 715 filing.
- 4. For each power flow case that is provided in response to Items 2 and 3 above, please identify on SCHEDULE 8 all prospective facilities that are not currently in service and the projected in-service date of those facilities. Complete one page for each new power flow case. In each case, identify only the new facility by type and list bus numbers and names that the new facility is connected with electrically.
- 5. The EIA expects that in nearly all cases the power flow format will be one of the following:
 - The Raw Data File format of the PTI (Power Technologies, Inc.) PSS/E power flow program;
 - The Card Deck Image format of the Philadelphia Electric power flow program;
 - The Card Deck format of the WSCC power flow program;
 - The Raw Data File format of the General Electric (formerly Electric Power Consultant, Inc. or EPC), or the PSLF power flow program; or
 - The IEEE Common Format for Exchange of Solved Power Flows.

Respondents submitting their own cases must supply the input data to the solved base cases and associated ACSII output data on compact disk in the format associated with the power flow program used by the respondents in the course of their transmission studies, as described above.

- 6. For Line 1, enter the case name.
- 7. For Line 2, enter the year studied in this power flow case.
- 8. For Line 3, enter the case number assigned by respondent.
- 9. For Line 4, column a, enter the name and type (e.g. line transformer, etc.) of a prospective facility included on the power flow case.
- 10. For Line 4, column b, enter the projected in-service date of the proposed facility. Please provide month and year (e.g., 12-2004).
- 11. For Line 4, column c and d, enter the number and name respectively of each bus to which the facility is connected. Use one line for each bus.
- 12. Repeat Instructions 9 through 12 for each prospective facility.

SCHEDULE 9. COMMENTS

Identify each comment by the appropriate schedule, part, line number, column identifier and page number. Use additional sheets, as required. (Any comment referencing sensitive information will be considered sensitive.)

U.S. Department of Energy COORDINATED BULK POWER Form Approved OMB No. 1905-0129 **U.S. Energy Information Administration** Approval Expires: 12/31/2013 **SUPPLY AND DEMAND** Form EIA-411 (2011) PROGRAM REPORT **Burden: 17 hours** The glossary for this form is available online at the following URL: **GLOSSARY** http://www.eia.gov/glossary/index.html For NERC definitions, see www.nerc.com, or this EIA copy at: http://www.eia.gov/cneaf/electricity/page/eia411/nerc_glossary_2009.pdf **SANCTIONS** The timely submission of Form EIA-411 by those required to report is requested under Section 13(b) of the Federal Energy Administration Act of 1974 (FEAA) (Public Law 93-275), as amended. Failure to respond may result in a penalty of not more than \$2,750 per day for each civil violation, or a fine of not more than \$5,000 per day for each criminal violation. The government may bring a civil action to prohibit reporting violations, which may result in a temporary restraining order or a preliminary or permanent injunction without bond. In such civil action, the court may also issue mandatory injunctions commanding any person to comply with these reporting requirements. Title 18 U.S.C. 1001 makes it a criminal offense for any person knowingly and willingly to make to any Agency or Department of the United States any false, fictitious, or fraudulent statements as to any matter within its jurisdiction. **REPORTING** Public reporting burden for this collection of information is estimated to be 120 hours per response for the Regional Entities and NERC, and 16 hours per response for the members within each **BURDEN** council, including the time of reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. The weighted average burden for the Form EIA-411 is 17 hours. The burden includes not only the hours needed by the Regional Entities and NERC, but also for the members within each council. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to the U.S. Energy Information Administration, Statistics and Methods Group, El-70, 1000 Independence Avenue S.W., Forrestal Building, Washington, D.C. 20585-0670; and to the Office of Information and Regulatory Affairs, Office of Management and Budget, Washington, D.C. 20503. A person is not required to respond to the collection of information unless the form displays a valid OMB number. The information contained on SCHEDULE 5, Bulk Electric Transmission System Maps, **PROVISIONS** SCHEDULES 7A, 7B, and 7C, Annual Data on AC and DC Transmission Line and Transformer **REGARDING THE** Outages, and SCHEDULE 8, Bulk Transmission Facility Power Flow Cases, will be protected and CONFIDENITALITY not disclosed to the extent that it satisfies the criteria for exemption under the Freedom of **OF INFORMATION** Information Act (FOIA), 5 U.S.C. §552, the DOE regulations, 10 C.F.R. §1004.11, implementing the FOIA, and the Trade Secrets Act, 18 U.S.C. §1905. All other information reported on Form EIA-411 are considered public information and may be publicly released in company identifiable form.

The Federal Energy Administration Act requires the EIA to provide company-specific data to other Federal agencies when requested for official use. The information reported on this form may also be made available, upon request, to another component of the Department of Energy (DOE) to any Committee of Congress, the Government Accountability Office, or other Federal agencies authorized by law to receive such information. A court of competent jurisdiction may obtain this information in response to an order. The information may be used for any nonstatistical purposes such as administrative, regulatory, law enforcement, or adjudicatory purposes.

Disclosure limitation procedures are applied to the protected statistical data published from SCHEDULES 5, 7, and 8, on Form EIA-411 to ensure that the risk of disclosure of identifiable information is very small.

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NOTICE: This report is **mandatory** under the Federal Energy Administration Act of 1974 (Public Law 93-275) for all parts. Failure to comply may result in criminal fines, civil penalties and other sanctions as provided by law. For further information concerning sanctions and data protections see the provision on sanctions and the provision concerning the confidentiality of information in the instructions. **Title 18 USC 1001 makes it a criminal offense for any person knowingly and willingly to make to any Agency or Department of the United States any false, fictitious, or fraudulent statements as to any matter within its jurisdiction.**

SCHEDULE 1. IDENTIFICATION								
Survey Contact								
First Name:	Last Name:							
Title:								
Telephone (include extension):	Fax:							
Email:								
	ntact Person for Survey							
First Name:	Last Name:							
Title:								
Telephone (include extension):	Fax:							
Email:								
<u>Re</u>	port For							
Regional Entity:								
Reporting Party (Regional Entity or subregion):								
For questions about the data requested	on Form EIA-411, contact the Survey Manager:							

Marie Rinkoski Spangler Telephone Number: (202) 586-2446 FAX Number: (202) 287-1934 Email: marie.rinkoski-spangler@eia.gov

U.S. Department of Energy U.S. Energy Information Administration Form EIA-411 (2011)				SUPPLY AND DEMAND PROGRAM REPORT Appro					m Approved OMB No. 1905-0129 den: 17 hours proval Expires: 12/31/2013					
Re	Regional Entity:													
Re	Reporting Party:													
	SCHEDULE 2. PART A. HISTORICAL AND PROJECTED PEAK DEMAND AND ENERGY - MONTHLY													
	k Demand ported	Non-Coincident Coincident												
plea	oincident, ase explain y not non- ncident	ncident, ee explain not non-												
							YE							
		2011	(Prior Y			2012 (rt Yea			20	13 (Nex	t Year)	
LIN E NO.	MONTH	PEAK HOU DEMAND (MEGAWATT (a)	IR (THO	ENERG USANDS (MEGA- TTHOURS (b)	OF PE	AK HOUDEMAND EGAWATT (a)	JR (1)	IET EN THOUSA MEG WATTH	NDS OF SA- OURS)	PE	AK HOL EMAND EGAWATT (a)		NET ENE THOUSAN EGAWATT (b)	IDS OF
1	January										•		` '	
2	February													
3	March													
4	April													
5	May													
6	June													
7	July													
8	August													
9	September													
1 0	October													
1 1	November													
1 2	December													
SC	CHEDULE 2. P	ART B. HIS	STORIC	AL AN	D PRC	JECTE	ED P	EAK I	DEMA	ND	AND E	NERG	Y - AN	NUAL
								YE	4R					
Actual				Year	Year	Year	Yea	r Ye	ar Y	'ear	Year	Year	Year	Year
			Year	1	2	3	4	5	5	6	7	8	9	10
Summer Peak Hour														
Demand, June-September														
1	(Megawatts)													
Winter Peak Hour Demand, December -														
2	February (Mega													
3	Net Annual En													

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•	ting Party:				_						
SCHEDULE 3. PART A. HISTORICAL AND PROJECTED DEMAND AND CAPACITY - SUMMER											
LINE											
NO.	-	Actual	(eg 2012)	(eg 2013)	••••	(eg 2020)	Year 10 (eg 2021)				
		(eg 2011)	AND (IN MEGA		••••	(eg 2020)	(eg 2021)				
	Unrestricted Non-coincident	DEIVI	AND (IN NILGA	WAIIS)							
1	Peak Demand										
1a	New Conservation										
1b	Estimated Diversity										
1c	Additions for non-										
	member load Stand-by Load Under										
1d	Contract										
2	Total Internal Demand										
2a	Direct Control Load Management										
2b	Contractually Interruptible										
2c	Critical Peak Pricing with Control										
2d	Load as a Capacity Resource										
3	Net Internal Demand										
4a	Demand Response Used for Reserves - Spinning										
4b	Demand Response Used for Reserves – Non-Spinning										
4c	Demand Response used for Regulation										
4d	Demand Response used for Energy, Voluntary – Emergency										
	3,										
	TOTAL INTERNAL CARACITY	CAPA	CITY (IN MEG	AWATTS)							
5	TOTAL INTERNAL CAPACITY (sum of 6 and 7)										
6	EXISTING CAPACITY										
6a	Existing, Certain										
6a1	Wind Expected On-peak										
6a2	Solar Expected On-peak										
6a3	Hydro Expected On- Peak										
6a4	Biomass Expected On- Peak										
6a5	Load as a Capacity Resource Expected On- Peak										

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Biomass Expected On-peak

Biomass Derate On-peak

Energy Only

7b7

7b8 7b9

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	epartment of Energy nergy Information Administrati			D BULK POW ND DEMAND		Form Approved OMB No. 1905-0129 Burden: 17 hours						
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	nal Entity:		TROOKA	W KEI OKI	ПАРРІО	vai Explics. 12/5	1/2013					
_	•					_						
Repor	ting Party:											
SCHEDULE 3. PART B. HISTORICAL AND PROJECTED DEMAND AND CAPACITY - WINTER												
LINE					YEAR							
NO.		Actual	Year 1			Year 9	Year 10					
		(eg 2011		eg 201:	3)	(eg 2020)	(eg 2021)					
	DEMAND (IN MEGAWATTS) Unrestricted Non-coincident											
1	Unrestricted Non-coincident Peak Demand											
1a	New Conservation											
1b	Estimated Diversity											
	Additions for non-											
1c	member load											
1d	Stand-by Load Under											
	Contract											
2	Total Internal Demand											
2	Total Internal Demand Direct Control Load											
2a	Management											
2b	Contractually Interruptible											
2c	Critical Peak Pricing with											
20	Control											
2d	Load as a Capacity											
	Resource											
3	Net Internal Demand											
3	Net internal Demand											
4a	Demand Response Used for Reserves - Spinning											
	Demand Response Used for											
4b	Reserves – Non-Spinning											
4c	Demand Response used for											
40	Regulation											
4d	Demand Response used for											
40	Energy, Voluntary – Emergency											
		CA	PACITY (IN N	IEGAWATTS)								
5	TOTAL INTERNAL CAPACITY (sum of 6 and 7)											
	(Sulli of 6 and 7)											
6	EXISTING CAPACITY											
6a	Existing, Certain											
6a1	Wind Expected On-peak											
6a2	Solar Expected On-peak Hydro Expected On-											
6a3	Peak											
604	Biomass Expected On-											
6a4	Peak											
0-5	Load as a Capacity											
6a5	Resource Expected On- Peak											
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	al Entity:					•		
Reporti	ng Party:				_			
SCH	EDULE 3. PART B. HISTORIO	AL AND PI	ROJECTED	DEMAN	ND AND CA	APACITY - V	VINTER	
LINE				Υ	/EAR			
NO.		Actual	Year 1	Year 2	· · · · ·	Year 9	Year 10	
110.		(eg 2011)	(eg 2012)	(eg 201	3)	(eg 2020)	(eg 2021)	
		CAPACITY (I	N MEGAWA	TTS)				
6b	Existing, Other							
6b1	Wind Derate On-peak							
6b2	Solar Derate On-peak							
6b3	Hydro Derate On-peak							
6b4	Biomass Derate On-peak							
6b5	Load as a Capacity Resource Derate On-peak							
6b6	Energy Only							
900	Scheduled Outage –							
6b7	Maintenance							
6b8	Transmission-Limited							
	Resources							
0								
6c	Existing, Inoperable Existing, Certain Capacity							
6c1	Forced Outage On-peak							
6c2	Existing, Other Capacity							
	Forced Outage On-peak							
7	FUTURE CAPACITY ADDITIONS							
7a	Future, Planned							
7a1	Wind Expected On-peak							
7a2	Wind Derate On-peak							
7a3	Solar Expected On-peak							
7a4	Solar Derate On-peak							
7a5	Hydro Expected On-peak							
7a6 7a7	Hydro Derate On-peak							
7a7 7a8	Biomass Expected On-peak Biomass Derate On-peak							
	Demand Response Expected							
7a9	On-peak							
7a10	Demand Response Derate On-peak							
7a11	Transmission-Limited							
	Resources							
7a12	Scheduled Outage – Maintenance							
7a13	All Other Derates							
7a14	Energy Only							
7b	Future, Other							
7b1 7b2	Wind Expected On-peak Wind Derate On-peak							
7b2 7b3	Solar Expected On-peak							
7b3 7b4	Solar Derate On-peak							
7b5	Hydro Expected On-peak							
7b6	Hydro Derate On-peak							
7b7	Biomass Expected On-peak							
7b8	Biomass Derate On-peak							
7b9	Energy Only							

U.S. Department of Energy Form Approved OMB No. 1905-0129 COORDINATED BULK POWER **U.S. Energy Information Administration Burden: 17 hours SUPPLY AND DEMAND** Form EIA-411 (2011) PROGRAM REPORT Approval Expires: 12/31/2013 Regional Entity: Reporting Party: SCHEDULE 3. PART B. HISTORICAL AND PROJECTED DEMAND AND CAPACITY - WINTER **YEAR** LINE Actual Year 1 Year 2 Year 9 Year 10 NO. (eg 2011) (eg 2012) (eg 2013) (eg 2020) (eg 2021) **CAPACITY (IN MEGAWATTS) CONCEPTUAL CAPACITY** 8 8a Conceptual Wind Expected On-peak 8a1 Wind Derate On-peak 8a2 Solar Expected On-peak 8a3 Solar Derate On-peak 8a4 **Hydro Expected On-peak** 8a5 8a6 Hydro Derate On-peak 8a7 **Biomass Expected On-**Peak Biomass Derate On-peak 8a8 8a9 **Energy Only** ANTICIPATED INTERNAL 9 **CAPACITY CAPACITY TRANSACTIONS -**10 **IMPORTS** 10a Firm 10a1 Full-Responsibility Purchases Owned Capacity/Entitlement 10a2 **Located Outside the** Region/subregion 10b Non-Firm Expected 10c Full-Responsibility Purchases 10c1 Owned Capacity/Entitlement **Located Outside the** 10c2 Region/subregion Provisional – transactions under study, but negotiations have not 10d begun. **CAPACITY TRANSACTIONS -**11 **EXPORTS** 11a Firm 11a1 Full-Responsibility Purchases Owned Capacity/Entitlement **Located Outside the** 11a2 Region/subregion 11b Non-Firm **Expected** 11c Full-Responsibility Purchases 11c1 Owned Capacity/Entitlement 11c2 **Located Outside the** Region/subregion Provisional – transactions under 11d study, but negotiations have not

begun.

U.S. Department of Energy Form Approved OMB No. 1905-0129 COORDINATED BULK POWER **U.S. Energy Information Administration Burden: 17 hours** SUPPLY AND DEMAND Form EIA-411 (2011) PROGRAM REPORT Approval Expires: 12/31/2013 Regional Entity: Reporting Party: SCHEDULE 3. PART B. HISTORICAL AND PROJECTED DEMAND AND CAPACITY - WINTER YEAR LINE 2008 2009 2010 2011 2012 2013 NO. (eg 2011) (eg 2012) (eg 2013) (eg 2020) (eg 2021) **CAPACITY - Continued (IN MEGAWATTS) EXISTING, CERTAIN & NET FIRM** 12 **TRANSACTIONS ANTICIPATED CAPACITY** 13 **RESOURCES** PROSPECTIVE CAPACITY 14 **RESOURCES TOTAL POTENTIAL CAPACITY** 15 **RESOURCES** ADJUSTED POTENTIAL CAPACITY 15a **RESOURCES** Confidence of Future, Other (7b) 16a 16b **Net Future, Other Resources** 16c **Confidence of Conceptual (8)** 16d **Net Conceptual Resources** Region/subregion Target Capacity 17C Margin Region/subregion Target Reserve 17**R** Margin Margins **Existing Certain and Net Firm** 18C **Transactions** 19C **Deliverable Capacity Resources** 20C **Prospective Capacity Resources Total Potential Resources** 21C 22C **Adjusted Potential Resources Existing Certain and Net Firm** 18R **Transactions** 19R **Deliverable Capacity Resources** 20R **Prospective Capacity Resources** 21R **Total Potential Resources 22R Adjusted Potential Resources** Other Capacity < 1 MW 23 **Distributed Generator Capacity** 24 >= 1 MW 25 **EIA-860 Capacity Total**

SCHEDULE 4 - RESERVED

Form Approved OMB No. 1905-0129 U.S. Department of Energy COORDINATED BULK U.S. Energy Information Administration **Burden: 17 hours POWER SUPPLY AND** Form EIA-411 (2011) **DEMAND PROGRAM** Approval Expires: 12/31/2013 REPORT Regional Entity:____ Reporting Party:_ SCHEDULE 5. BULK ELECTRIC TRANSMISSION SYSTEM MAPS LINE NO. Specify the Number of Maps 1 Provided: 2 For each map provide file name, coverage, and map software: MAP NUMBER (if applicable) FILE NAME (if applicable) MAP SOFTWARE (if applicable) (a) (b) (d)

U.S. Department of Energy U.S. Energy Information Administration Form EIA-411 (2011)			tion	COORDINATED BULK POWER SUPPLY AND DEMAND PROGRAM REPORT					Form Approved OMB No. 1905-0129 Burden: 17 hours Approval Expires: 12/31/2013				-0129
Regio	onal Entity:												
	orting Party:												
		DULE	6A. E	(ISTIN	G AND	PROJ	ECTE	CIR	CUIT	MILES			
						(CIRCUIT	MILES	;				
LINE					AC (kV)						DC (kV)		
NO.		100- 120	121- 150	151- 199	200- 299	300- 399	400- 599	600 +	100- 199	200- 299	300- 399	400- 599	600 +
1	Existing (as of last day of prior report year)												
2	Under Construction (as of first day of current report year)												
3	Planned (completion within first five years)												
4	Conceptual (completion within first five years)												
5	Planned (completion within second five years)												
6	Conceptual (completion within second five years)												
7	Sum of Existing, Under Construction, and Planned Transmission (full ten- year period)												
	Sum of Existing, Under Construction,												

8 Planned, and Conceptual Transmission (full tenyear period)

Note: Summation columns for AC, DC, and Grand Total are not shown.

U.S. Department of Energy				COORDINATED BULK								MB No. 1	905-0129	
		tion Administrat	ion					DEMAN	כ	Burden: 17 hours				
	IA-411 (2011)				PR	ROGRA	AM R	EPORT		Appı	oval Ex	oires:	12/31/20	13
Region	nal Entity:													
Repor	ting Party:_													
		ULE 6B. CHA	RAC	TFR	ISTI	CS O	F PF	OJEC	TED 1	ΓRΔN	SMISS	ION	INFS	
LINE	SCITED	OLL OD. CITA				ION L								ION LINE
NO.			''	\AI10	(a)		II 7 L	(b)				1117	(c)	
	MISSION LIN	E IDENTIFICATION	ON		(-/					<u> </u>			(-)	
1	Project Name	e												
2	Project Statu	IS												
3	Tie line													
4a	Primary Driv													
4b	Secondary D													
5		cation (From)												
6	Terminal Loc													
		E OWNERSHIP	_											
7	Company N													
8	EIA Compar													
9	Type of Org													
10 TDANG	Percent Own													
11 11														
11	Line Length	(miles)	-	,	[]	г 1	ı	r 1	г 1			r 1	г 1	r 1
12	Line Type		[OF		UG L	[] SM		[] OH	[] UG		[] Sm	[] OH	[] UG	[] SM
			101		<u>г</u> т	SIVI		[]	1 T		OIVI	r 1	[]	SIVI
13	Voltage Type		AC		DC .			AC	DC,			AC	DC,	
	Voltage Ope	erating						7.0				7.0		
14	(Kilovolts)	J												
15		ign (Kilovolts)												
16	Conductor S													
	Conductor I	Material Type												
17		es from legend												
	below)													
18	Bundling Ar													
	•	es from legend)												
19	Circuits per	Structure												
	Present	<u> </u>												
20	Circuits per	Structure												
	Ultimate	Tuma	D.	ala M	-4:-	J. F	-,-	Dala	Matau	ial. T		Del	- Mataula	
21	Pole/Tower	ıype es from legend)		ole Ma Pole			<u>, </u>		Mater ole Type				e Materia ole Type	
22	Capacity Ra			role	i ype.	• 1		PU	ле тур	e. <u>[</u>		F	ole Type	<u>· L _ J </u>
23		Service Date												
24		-Service Date												
25	Line Delaye													
26	Cause of De													
						LEG	END							
1:	ne Type	Voltage Type	Cond	uctor N	latorio			lling Arran	namont			ole/To	ver Type	
			Cond	actor I	natel lä	ı ı ype		•	igenient					
OH=Overh UG=Under				luminu			1 = Si 2 = D			Pole M	ateriai		Pole Type	
	I=Submarine Current DC=Direct Current			CCR = Aluminum		3 = Tr	= Triple		W = Wood			P = Single pole		
			Compo Reinfo		onauci	ıor		uadruple		C = Co			H = H-fram	е
			ACSR	= Alum		Core	01 =	Other			eı mbination		T = Tower U = Under	around
				Reinfor	ced							O = Other	,	
			CU = C SUPER		ercon	ducting								
			OT = 0											

U.S. Department of Energy Form Approved OMB No. 1905-0129 COORDINATED BULK POWER U.S. Energy Information Administration **Burden: 17 hours SUPPLY AND DEMAND** Form EIA-411 (2011) Approval Expires: 12/31/2013 PROGRAM REPORT Regional Entity: Reporting Party:_ SCHEDULE 7. PART A. ANNUAL DATA ON TRANSMISSION LINE OUTAGES FOR AC LINES (Report following data for each applicable EHV Voltage Class) LINE NO. 200-299 kV 300-399kV 400-599kV 600-799 kV Reserved **Applicable AC Voltage Class** 1 (a) (b) (c) (d) (e) Automatic (Unscheduled), Sustained Outages for Specified Voltage Class **Number of Outages** 2 **Number of Circuit-Hours Out of Service** 3 Initiating (I) and Sustained (S) Causes ī 4 S S ı S S I S (Count of Outages per Cause Category) Weather, excluding lightning 4a 4b Lightning **Environmental** 4c **Foreign Interference** 4d Contamination 4e 4f Fire Vandalism, Terrorism, or 4g **Malicious Acts** 4h **Failed AC Substation Equipment Failed AC/DC Terminal Equipment** 4i 4j **Failed Protection System Equipment** 4k **Failed AC Circuit Equipment** 41 **Failed DC Circuit Equipment Human Error** 4m Vegetation 4n **Power System Condition** 40 Unknown 4p 4q Other Non-Automatic, Operational Outages for Specified Voltage Class **Number of Outages** 5 **Number of Circuit-Hours Out of Service** 6 7 **Outage Cause (Count)** 7a **Emergency** 7b **System Voltage Limit Mitigation System Operating Limit Mitigation** 7c (excluding voltage) 7d Other Operational Outage Non-Automatic, Planned Outages for Specified Voltage Class 8 **Number of Outages** Number of Circuit-Hours Out of Service 9 **Outage Cause (Count)** 10 **Maintenance and Construction** 10a 10b **Third Party Request** 10c Other Planned Outage

U.S. E	Department of Energy Energy Information Administration EIA-411 (2011)		SUPP	ATED LY AN GRAN	D DE	MAND		Bur	Form Approved OMB No. 1905-0129 Burden: 17 hours Approval Expires: 12/31/2013						
Regio	onal Entity:														
•	orting Party:														
		A T /	A ON	TDA	NICE	II C C I	ONL		OLIT /	\ OEC	· FOF) DC	LINIE	· C	
	CHEDULE 7. PART B, ANNUAL D (Report following										FUF		LINE	:5	
LINE NO.															
1	Applicable DC Voltage Class		199	00-) kV a)	± 200- 299 kV (b)		399	± 300- 399 kV (c)		± 400- 499 kV (d)		± 500- 599 kV (e)		± 600- 799 kV (f)	
	Automatic (Unschedule	ustai	ned O	utage	s for	Specif	fied V	oltage	Class	S					
2	Number of Outages														
3	Number of Circuit-Hours Out of Service		ı								ı		1		
4	Initiating (I) and Sustained (S) Causes (Count of Outages per Cause Category)			S	I	S	I	S	I	S	I	S	I	S	
4a	Weather, excluding lightning														
4b	Lightning														
4c															
4d	Foreign Interference														
4e	Contamination														
4f	Fire														
4g	Vandalism, Terrorism, or Malicious Acts														
4h	Failed AC Substation Equipment														
4i	Failed AC/DC Terminal Equipment														
4j	Failed Protection System Equipment														
4k	Failed AC Circuit Equipment														
41	Failed DC Circuit Equipment														
4m	Human Error														
4n															
40	Power System Condition														
4p	Unknown														
4q	Other														
	Non-Automatic, Op	erati	onal	Outag	es toi	Spec	ified '	voitag	ge Cla	SS	1				
5	Number of Outages Number of Circuit-Hours Out of Service														
7	Outage Cause (Count)	e													
/ 															

Non-Automatic, Planned Outages for Specified Voltage Class

System Voltage Limit Mitigation
System Operating Limit Mitigation

Number of Circuit-Hours Out of Service

Maintenance and Construction

(excluding voltage)
Other Operational Outage

Number of Outages

Outage Cause (Count)

Third Party Request Other Planned Outage

7b 7c

7d

8

9 10

10a

10b 10c **U.S. Department of Energy** COORDINATED BULK POWER Form Approved OMB No. 1905-0129 **U.S. Energy Information Administration** SUPPLY AND DEMAND **Burden: 17 hours** Form EIA-411 (2011) PROGRAM REPORT Approval Expires: 12/31/2013 Regional Entity: Reporting Party: SCHEDULE 7. PART C. ANNUAL DATA ON TRANSFORMER OUTAGES (Report following data for each applicable class) LINE NO. 600-799 **Applicable Transformer High-Side Voltage Class** 300-399 400-599 200-299 kV k۷ k۷ k۷ 1 Reserved Note: To be reported on this form, the Transformer (a) (b) (c) (d) (e) must have a low-side voltage ≥200 kV. Automatic (Unscheduled), Sustained Outages for Specified Voltage Class Number of Outages 2 **Number of Transformer-Hours Out of Service** 3 Initiating (I) and Sustained (S) Causes (Count of 4 S S ı S S ı S **Outages per Cause Category)** 4a Weather, excluding lightning Lightning 4b 4c **Environmental Foreign Interference** 4d Contamination 4e **Fire** 4f Vandalism, Terrorism, or 4g **Malicious Acts** 4h **Failed AC Substation Equipment Failed AC/DC Terminal Equipment** 4i **Failed Protection System Equipment** 4i **Failed AC Circuit Equipment** 4k 41 **Failed DC Circuit Equipment** 4m **Human Error** Vegetation 4n **Power System Condition** 40 Unknown 4p Other 4q Non-Automatic, Operational Outages for Specified Voltage Class **Number of Outages** 5 **Number of Transformer-Hours Out of Service** 6 **Outage Cause (Count)** 7 7a **Emergency System Voltage Limit Mitigation** 7b **System Operating Limit Mitigation** 7c (excluding voltage) 7d Other Operational Outage Non-Automatic, Planned Outages for Specified Voltage Class Number of Outages 8 Number of Transformer-Hours Out of Service 9 **Outage Cause (Count)** 10 **Maintenance and Construction** 10a 10b Third Party Request **Other Planned Outage** 10c

U.S. Department of Energy COORDINATED BULK POWER Form Approved OMB No. 1905-0129 **U.S. Energy Information Administration Burden: 17 hours** SUPPLY AND DEMAND Form EIA-411 (2011) PROGRAM REPORT Approval Expires: 12/31/2013 Regional Entity: Reporting Party: SCHEDULE 7. PART D, ELEMENT INVENTORY AND EVENT SUMMARY (Report following data for each applicable voltage class) LINE NO. 200-299 300-399 400-599 600-799 **All Voltages** k۷ k۷ k۷ k۷ 1 **Applicable AC Circuit Voltage Class** (e) (a) (b) (c) (d) 2 **Number of AC Circuits (Total)** 2a Overhead 2b Underground **Number of AC Circuit Miles (Total)** 3 **Overhead** 3a 3b Underground **Number of AC Multi-Circuit Structure** 4 Miles ± 100-± 200-± 300-+ 400 -± 500 -+ 600 -299 kV 399 kV 499kV 599kV 799kV 5 **Applicable DC Circuit Voltage Class** 199 kV (b) (c) (d) (e) (f) (a) **Number of DC Circuits (Total)** 6 6a **Overhead** 6b Underground 7 **Number of DC Circuit Miles (Total)** 7a Overhead 7b **Underground Applicable Transformer High-Side** 300-399 400-599 600-799 200-299 **Voltage Class** Reserved k۷ k۷ kV kV 8 Note: To be reported on this form, the (e) Transformer must have a low-side voltage (a) (b) (c) (d) ≥200 kV. 9 **Number of Transformers Total Number of Events (all Voltage** 10 Classes)

U.S. Er	epartment of Energy nergy Information Adm EIA-411 (2011)	inistration	PC	OORDINATED BULK OWER SUPPLY AND EMAND PROGRAM REPORT	Burden:	proved OMB No. 1905-0129 17 hours Expires: 12/31/2013
Regio	nal Entity:					
	ting Party:					
·		BULK TF	RANSM	ISSION FACILITY P	OWER F	LOW CASES
LINE NO.						
1	Case Name:					
2	Year of Study:					
3	Case Number:					
				FACILITIES AND CON	NECTIONS	3
		PROJEC IN-SER DAT	VICE		CONNECT	IONS
4	NAME AND TYPE OF FACILITY (a)	(e.g., 12-2004) (b)		BUS NUMBER (c)		BUS NAME (d)
		_				
		I				

U.S. En	epartment of En ergy Information IA-411 (2011)	nergy on Admin	nistration	SUPPLY	TED BULK PO AND DEMANI RAM REPORT	ס	Form Approved OMB No. 1905-0129 Burden: 17 hours Approval Expires: 12/31/2013				
Regio	nal Entity:										
Repor	ting Party:						_				
	SCHEDULE 9. COMMENTS										
LINE NO.	SCHEDULE (a)	PART (b)	LINE NO. (c)		PAGE (e)		COMMENT (f)				
1											
2											
3											
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Subject: United States Department of Energy – EIA Annual Data Collection, Form EIA-826

Dear Respondent:

The Energy Information Administration's (EIA), Internet Data Collection (IDC) system is now ready for you to report your electric data for the year 2008. You are required to file **Form EIA-826**, "**Monthly Electric Sales and Revenue with State Distributions Report.**" The survey is due no later than 30 calendar days following the close of the reporting month. For example, if reporting data for February, the survey is due on March 30, 2008. The EIA electric surveys are a mandatory collection under the authority of the Federal Energy Administration Act of 1974 (P.L. 93-275). Non-respondents and late filers are subject to financial penalties. The EIA encourages you to file your data using our IDC system.

If you are currently registered in the IDC system for secure electronic access with a Single Sign-On (SSO) account, you can login to the IDC system at: https://signon.eia.doe.gov/ssoserver/login and enter your User ID and Password to access your EIA surveys. If you are registered and have forgotten your password, but know the User ID, you can reset your password. Log on to the IDC system at the website listed above. Type your User ID and click on Forgot Your Password. Follow the prompts and you will be allowed to reset your password. Please pay special attention to the password rules and be sure to record your new password. If you need assistance resetting your password, please call the Help Center at (202) 586-9595 or contact us via email at: cneafhelpcenter@eia.doe.gov.

If you are not registered, please contact the CNEAF Help Center at (202) 586-9595 or via email. Please choose only one method of contact for the CNEAF Help Center, either telephone or email. Please do not do both.

Edits have been built into the IDC system to assist you in providing accurate data. In order to successfully submit your forms, you must run the edits and address the warning messages for all flagged data by either correcting and/or commenting on each of the flagged data elements. Please go to the Error Log and click on the "Run EIA-826 Edits" button. Once you have corrected and/or commented on the appropriate edit flags, you should be able to submit your data by pressing the "Submit" button. If your data are accepted you should receive a message stating that your data have been successfully sent with the current date.

The timely submission of Form EIA-826 by those required to report is mandatory under Section 13(b) of the Federal Energy Administration Act of 1974 (FEAA) (Public Law 93-275), as amended. Failure to respond may result in a penalty of not more than \$2,750 per day for each civil violation, or a fine of not more than \$5,000 per day for each criminal violation. The government may bring a civil action to prohibit reporting violations, which may result in a temporary restraining order or a preliminary or permanent injunction without bond. In such civil action, the court may also issue mandatory injunctions commanding any person to comply with these reporting requirements. Title 18 U.S.C. 1001 makes it a criminal offense for any person knowingly and willingly to make to any Agency or Department of the United States any false, fictitious, or fraudulent statements as to any matter within its jurisdiction.

Your cooperation is greatly appreciated.

Sincerely,

XXXXXXXXX

Survey Manager Electric Power Division Office of Coal, Nuclear, Electric and Alternate Fuels Energy Information Administration

U.S. Department of Er U.S. Energy Information Form EIA-826 (2011)		MONTHLY ELECTRIC SALES AND REVENUE WITH STATE DISTRIBUTIONS REPORT	Form Approved OMB No. 1905-0129 Approval Expires: 12/31/2013				
PURPOSE	Form EIA-826 collects information from electric utilities, energy service providers, and distribution companies that sell or deliver electric power to end users. Data collected on this form includes sales and revenue for all end-use sectors (residential, commercial, industrial, and transportation). The data from this form appear in the following EIA publications: Electric Power Monthly, Monthly Energy Review, and Annual Energy Review. The data collected on this form are used to monitor the current status and trends of the electric power industry and to evaluate the future of the industrial.						
REQUIRED RESPONDENTS	providers, and oth electric power to e	S is a mandatory report for all investor of the selected electric utilities and distributed users on a monthly basis. The Formen from the respondent frame of the Former the respondent frame of the respondent frame of the respondent frame of the Former the res	m EIA-826 is a statistical sample of				
RESPONSE DUE DATE		due to the Energy Information Administrating period. For example, if reporting for	ration (EIA) by the last day of the month or July, survey is due on August 31.				
METHODS OF FILING RESPONSE	If you have assistance If you have assistance If you have If you are filing system Desk at: If you need the system of th	having a technical problem with logging	ess during transmission. On system, send an email requesting on at https://signon.eia.gov/ssoserver/login . In the e-filing system or using the e-for further information. Contact the Help In the e-for further information. Contact the Help In the e-formation of th				
CONTACTS	Internet System Questions: For questions related to the e-filing system, see the help contact information immediately above.Data Questions: For questions about the data requested on Form EIA-826, contact the Survey Manager:						
	Charlene Harris-Russell Telephone Number: (202) 586-2661 FAX Number: (202) 287-1959 Email: Charlene.Harris-Russell@eia.gov						

U.S. Department of Energy
U.S. Energy Information Administration
Form EIA-826 (2011)

MONTHLY ELECTRIC SALES AND REVENUE WITH STATE DISTRIBUTIONS REPORT INSTRUCTIONS

Form Approved OMB No. 1905-0129 Approval Expires: 12/31/2013 Burden: 1.6 hours

GENERAL INSTRUCTIONS

Monthly data are due to the Energy Information Administration (EIA) by the last day of the month following the reporting period.

- 1. Enter zero for States without revenue, megawatthours, or number of customers to report for a particular sector. **Do not leave these data fields blank.**
- 2. Submit revisions to data previously reported as soon as possible after the error or omission is discovered. Do not wait until the next reporting month's form is due to send resubmission(s). A new submission must be completed for each revised page.
- 3. If you are unable to make a revision through the E-filing system because the monthly data file has been locked, please email your revisions to www.eia-826@eia.gov.
- 4. Respondents should coordinate the information submitted on the Form EIA-861, "Annual Electric Power Report," and the Form EIA-826 to ensure consistency.
- Count each meter as a separate customer in cases where commercial franchise or residential
 customer-buying groups have been aggregated under one buyer representative. The
 customer counts for public-street and highway lighting should be one customer per
 community.

ITEM-BY-ITEM INSTRUCTIONS

SCHEDULE 1. IDENTIFICATION

- Survey Contact: Verify contact name, title, telephone number, fax number, and email address.
- 2. **Supervisor of Contact Person for Survey:** Verify for the supervisor of the survey contact, the name, title, telephone number, fax number and email address.
- 3. **Report For:** Verify all information, including Company Name, Company Identification Number, and reporting month and year for which data are being reported. These fields cannot be revised online. Contact EIA if corrections are needed.

If any of the above information is incorrect, revise the incorrect entry and provide the correct information. Provide any missing information.

SCHEDULE 2. SALES TO ULTIMATE CUSTOMERS

SCHEDULE 2. PART A. SALES TO ULTIMATE CUSTOMERS – FULL SERVICE - ENERGY AND DELIVERY SERVICE (BUNDLED)

Enter the reporting month revenue (thousand dollars to the nearest .001), megawatthours sold and delivered (to the nearest .001 MWh), and the number of customers for sales of electricity to ultimate customers by State and customer class category for whom your utility provided both energy and delivery service. For public street and highway lighting, count all poles in a community as one customer. Note: For sales to customer groups using brokers or aggregators, continue to count each customer separately. For instance, count a group of franchised commercial establishments aggregated through a single broker as separate customers (as reported in prior years). Enter the two-letter U.S. Postal Service abbreviation (if not preprinted) for the State in which the electric sales occur.

SCHEDULE 2. PART B. SALES TO ULTIMATE CUSTOMERS – ENERGY-ONLY SERVICE (WITHOUT DELIVERY SERVICE)

Enter the reporting month revenue (thousand dollars to the nearest .001), megawatthours sold (to the nearest .001 MWh), and the number of customers for sales of electricity to ultimate customers by State and customer class category for which your company provided only the electricity consumed, where another electric company provided delivery services, including, for example, billing, administrative support, and line maintenance. Enter the two-letter U.S. Postal Service abbreviation (if not preprinted) for the State in which the electric sales occur. Submit a

U.S. Department of Energy U.S. Energy Information Administration Form EIA-826 (2011) MONTHLY ELECTRIC SALES AND REVENUE WITH STATE DISTRIBUTIONS REPORT INSTRUCTIONS Form Approved OMB No. 1905-0129 Approval Expires: 12/31/2013 Burden: 1.6 hours

complete list of the "Names of Transmission and Distribution Companies Within each State providing Delivery Service for Electricity Delivered to an end use customer". Do not use acronyms. Submit this list in January of each year or the first month in which you began reporting the EIA-826. In subsequent months of the reporting year only revise the list with newly active/inactive companies for the month being reported. This list of companies will aid the EIA in matching up sales and delivery service in each State.

SCHEDULE 2. PART C. SALES TO ULTIMATE CUSTOMERS – DELIVERY-ONLY SERVICE (AND ALL OTHER CHARGES)

Enter the reporting month revenue (thousand dollars to the nearest .001), megawatthours delivered (to the nearest .001 MWh), and number of customers for sales of electricity to ultimate customers in your service territory by State and customer class category for which your company provided energy delivery services, where another electric entity or Power Marketer supplied the electricity. Do not provide delivery service provided on behalf of another delivery company or utility which would be defined as a sale for resale. Enter the two-letter U.S. Postal Service abbreviation (if not preprinted) for the State in which the electric sales occur. Submit a complete list of the 'Names of Companies (primarily Power Marketers) Within the State for which Electricity is Delivered to an end use customer". Do not use acronyms. Submit this list in January of each year or the first month in which you began reporting the EIA-826. In subsequent months of the reporting year only revise the list with newly active/inactive companies for the month being reported. This list of companies will aid the EIA in maintaining a current list of entities doing business in each State.

SCHEDULE 2. PART D. SALES TO ULTIMATE CUSTOMERS – BUNDLED SERVICE BY RETAIL ENERGY PROVIDERS OR ANY POWER MARKETER THAT PROVIDES "BUNDLED SERVICE."

Enter the reporting month revenue (thousand dollars to the nearest .001), megawatthours sold and delivered (to the nearest .001 MWh), and the number of customers for sales of electricity to ultimate customers by State and customer class category for whom your company provided both energy and delivery service. For public street and highway lighting, count all poles in a community as one customer.

Note: For sales to customer groups using brokers or aggregators, continue to count each customer separately. For instance, count a group of franchised commercial establishments aggregated through a single broker as separate customers (as reported in prior years). (Note: Texas Retail Energy Providers (REPs) should include delivery revenues.) Enter the two-letter U.S. Postal Service abbreviation (if not preprinted) for the State in which the electric sales occur.

SCHEDULE 2, PARTS A-D

- 1. For column a, **Residentia**l, enter the revenue, megawatthours, and number of customers for residential (household) purposes. For the residential class, do not duplicate the customer accounts due to multiple metering for special services (e.g., water heating, etc.). Show Revenue and Megawattshours Sold to the nearest 0.001 value.
- 2. For column b, **Commercial**, enter the revenue, megawatthours, and number of customers for commercial purposes. Show Revenue and Megawattshours Sold to the nearest 0.001 value.
- 3. For column c, **Industrial**, enter the revenue, megawatthours, and number of customers for industrial purposes. Show Revenue and Megawattshours Sold to the nearest 0.001 value.
- 4. For column d, **Transportation**, enter the revenue, megawatthours, and number of customers for electric energy supplied for transportation purposes. Show Revenue and Megawattshours Sold to the nearest 0.001 value.

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U.S. Energy Information Administration
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- 5. For column e, **Total**, enter, for each State, the sum of the revenue, megawatthours, and number of customers entered for residential, commercial, industrial, and transportation sales. Show Revenue and Megawattshours Sold to the nearest 0.001 value.
- 6. Previously reported "public street and highway lighting" data should now be included in the commercial sector. Irrigation data should now be included in the industrial sector.
- 7. Attach additional sheet(s), if required.
- 8. Refer to the Glossary for the definition of selected terms.

SCHEDULE 3.

SCHEDULE 3, PART A. GREEN PRICING

Green Pricing programs allow electricity customers the opportunity to purchase electricity generated from renewable resources and to pay for renewable energy development. Renewable resources include solar, wind, geothermal, hydroelectric power, and wood. These programs are voluntary where customers pay an additional fee to purchase electricity generated from renewable sources. Renewable Energy Certificates (RECs), also known as green certificates, green tags, or tradable renewable certificates, represent the environmental attributes of the power produced from renewable energy projects and are sold separately from the electricity commodity. Customers can buy RECs even if they do not have access to green power through their local utility or a competitive electricity marketer. They can also purchase RECs without having to switch electricity suppliers.

Line1: Report the Total Green Pricing Revenue for customers in each customer class. Revenue should be reported in thousands of dollars to the nearest .001 (for example, \$1,299 would be reported as 1.299 thousand dollars). Revenue should include revenue from the green pricing program plus the price of the electricity purchased.

Example: For 1000 kWh of electricity sales, if the normal price for electricity is \$0.10 per kWh:

a) An entity sells Green Energy in blocks of \$5.50 per 100 kWh block:

Total cost = (1,000kWh x \$0.10/kWh) + ((\$5.50/100kWh block) x (10 blocks of 100 kWh))

- = \$100.00 + \$55.00
- = \$155.00
- b) Alternatively, an Entity which sells Green Energy for a premium of \$0.02 per

Total cost = $(1,000kWh \times \$0.10/kWh) + ((\$0.02/kWh) \times (1,000kWh))$ = \$100.00 + \$20.00

= \$120.00

Line 2: Report the Total Green Pricing Sales, the total amount of megawatthours purchased by customers for each green pricing customer class (for example, 1,299 kWh would be reported as 1.299 MWh).

Line 3: Report the Total Green Pricing Customers, the number of customers who purchased green power for each customer class. The sales volumes and the number of customers should not exceed the values reported in Schedule 2, Parts A, B, or D.

Line 4: Report the revenue from RECs for each customer class in thousand of dollars to the nearest tenth. This revenue must not exceed the Total Green Power Revenue reported in line 1 above.

Line 5: Report the sales from RECs in megawatthours for each customer class. This amount should not exceed the Total Green Pricing Sales reported in line 2 above,

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The Total for each customer class will automatically sum for the electronic online e-file system.

SCHEDULE 3, PART B. NET METERING

Net Metering tariff arrangements permit a facility, typically generating electricity from a renewable resource, (using a meter that reads inflows and outflows of electricity) to sell any excess power it generates over its load requirement back to the electrical grid, typically at a rate equivalent to the retail price of electricity.

For net metering applications of 2 MW nameplate capacity or less, report the installed net metering capacity by State, customer class and technology. Report net metering data by sector and technology type for each state. Capacity should be reported in MW as AC load capable. Example: 8 kW should be 0.008 MW. Capacities should not exceed limits set up by each state. Please provide this capacity in MW, to the nearest 0.001 MW by technology. Do not report for net metering applications larger than 2 MW.

If the data is available, enter the amount of electric energy sold back to the utility **(MWh)** through the net metering application. Report the number of net metering customers by customer class. If you are unable to utilize the e-file system which creates the totals automatically; then provide the **Totals** for net metering megawatthours, installed net metering capacity and customers by State, customer class and technology. Complete all lines for Schedule 3, Part B.

SCHEDULE 3, PART C. ADVANCED METERING

This schedule should only include customers from Schedule 2 Part A or Part C.

Standard (Electric) Meters are electromechanical or solid state meters measuring aggregated kWh where data are manually retrieved over monthly billing cycles for billing purposes only. Standard meters may also include functions to measure time-of-use and/or demand with data manually retrieved over monthly billing cycles.

Automated Meter Reading (AMR): Meters that collect data for billing purposes only and transmit this data **one way**, usually from the customer to the distribution utility. Aggregated monthly kWh data captured on these meters may be retrieved by a variety of methods including drive-by vans with short-distance remote reading capabilities and communication over a fixed network such as a cellular network.

Enter the state and report the total number of AMR meters by sector. The number of AMR meters may be equal to but not exceed the number of customers on Schedule 2.

Advanced Metering Infrastructure (AMI): Meters that measure and record usage data at a minimum, in hourly intervals, and provide usage data to both consumers and energy companies at least once daily. Data are used for billing and other purposes. Advanced meters include basic hourly interval meters and extend to real-time meters with built-in **two-way** communication capable of recording and transmitting instantaneous data.

Enter the state and report the total number of AMI meters by sector.

For AMI meters that are only being used as AMR, report meters as AMR.

Energy Served through AMI (MWh) should be entered in megawatthours for customers served.

If the data is available, enter the amount of electric energy sold back to the utility (MWh) through the net metering application.

U.S. Department of Ene U.S. Energy Information Form EIA-826 (2011)		MONTHLY ELECTRIC SALES AND REVENUE WITH STATE DISTRIBUTIONS REPORT INSTRUCTIONS SCHEDULE 4. MERGERS AND	Form Approved OMB No. 1905-0129 Approval Expires: 12/31/2013 Burden: 1.6 hours /OR ACQUISITIONS				
		acquisition has occurred during the reps whose operations are now included in	porting period, report those newly-acquired n this report.				
		SCHEDULE 5. COMMENTS					
	Explanations of	entries or other comments may be prov	ided in the comment section.				
GLOSSARY		this form is available online at the follow ov/glossary/index.html	wing URL:				
SANCTIONS	The timely submission of Form EIA-826 by those required to report is mandatory under Section 13(b) of the Federal Energy Administration Act of 1974 (FEAA) (Public Law 93-275), as amended. Failure to respond may result in a penalty of not more than \$2,750 per day for each civil violation, or a fine of not more than \$5,000 per day for each criminal violation. The government may bring a civil action to prohibit reporting violations, which may result in a temporary restraining order or a preliminary or permanent injunction without bond. In such civil action, the court may also issue mandatory injunctions commanding any person to comply with these reporting requirements. Title 18 U.S.C. 1001 makes it a criminal offense for any person knowingly and willingly to make to any Agency or Department of the United States any false, fictitious, or fraudulent statements as to any matter within its jurisdiction.						
REPORTING BURDEN	Public reporting burden for this collection of information is estimated to average 1.6 hours per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to the Energy Information Administration, Statistics and Methods Group, EI-70, 1000 Independence Avenue S.W., Forrestal Building, Washington, D.C. 20585-0670; and to the Office of Information and Regulatory Affairs, Office of Management and Budget, Washington, D.C. 20503. A person is not required to respond to the collection of information unless the form displays a valid OMB number.						
PROVISIONS REGARDING CONFIDENTIALITY OF INFORMATION	and D, and SCHEDULE 3 PART A on Form months after the end of the of the reporting ion under the Freedom of Information Act ion regulations, 10 C.F.R. §1004.11, U.S.C. §1905. After nine (9) months from a sidered non-sensitive and may be publicly ted on Form EIA-826 are considered public dentifiable form						
	The Federal Energy Administration Act requires the EIA to provide company-specific data to other Federal agencies when requested for official use. The information reported on this form may also be made available, upon request, to another component of the Department of Energy (DOE) to any Committee of Congress, the Government Accountability Office, or other Federal agencies authorized by law to receive such information. A court of competent jurisdiction may obtain this information in response to an order. The information may be used for any nonstatistical purposes such as administrative, regulatory, law enforcement, or adjudicatory purposes. Disclosure limitation procedures are applied to the sensitive statistical data published from						
	Revenue, Megav		ers until nine (9) months after the end of fidentifiable information is very small until				

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NOTICE: This report is **mandatory** under the Federal Energy Administration Act of 1974 (Public Law 93-275). Failure to comply may result in criminal fines, civil penalties and other sanctions as provided by law. For further information concerning sanctions and data protections see the provision on sanctions and the provision concerning the confidentiality of information in the instructions. **Title 18 USC 1001 makes it a criminal offense for any person knowingly and willingly to make to any Agency or Department of the United States any false, fictitious, or fraudulent statements as to any matter within its jurisdiction.**

SCHEDULE 1. IDENTIFICATION								
	Survey Contact							
First Name:	Last Na	me:						
Title:								
Telephone (inclu	ude extension): F	-ax:						
Email:								
	Supervisor of Contact Perso	n for Survey						
First Name:	Last Na	me:						
Title:								
• '		⁼ ax:						
Email:								
Company ID:	Report For							
Respondent	[] Federal	[] State						
Type	Political Subdivision	[] Municipal						
(check one)	Municipal Marketing Authority	Investor-Owned						
	[] Cooperative	[] Retail Power Marketer (or Energy						
	[] Independent Power Producer or	Service Provider)						
Qualifying Facility								
For questions or additional information about the Form EIA-826, contact the Survey Manager:								
Charlene Harris-Russell Telephone: (202) 586-2661 FAX Number: (202) 287-1959 Email: Charlene.Harris-Russell@eia.gov								

U.S. Department of Energy Energy Information Administration Form EIA-826 (2011)
Company Name:

MONTHLY ELECTRIC SALES AND REVENUE Form Approved OMB No. 1905-0129

Company Name:	Form EIA-826 (2011)			WITH STATE DISTRIB	UTIONS REPORT	Approval Expires: 12/31/2013 Burden: 1.6 hours				
SCHEDULE 2. PART A. SALES TO ULTIMATE CUSTOMERS – FULL SERVICE - ENERGY AND DELIVERY SERVICE (BUNDLED) RESIDENTIAL (a) (b) (c) (d) (e) STATE Revenue (thousand dollars) (To nearest 0.001) Megawatthours Sold and Delivered (To nearest 0.001) Number of Customers STATE Revenue (thousand dollars) (To nearest 0.001) Number of Customers STATE Revenue (thousand dollars) (To nearest 0.001) Number of Customers STATE Revenue (thousand dollars) (To nearest 0.001) Number of Customers STATE Revenue (thousand dollars) (To nearest 0.001) Number of Customers STATE Revenue (thousand dollars) (To nearest 0.001) Megawatthours Sold and Delivered (To nearest 0.001)	Company Name	e:			-					
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(To nearest 0.001) Megawatthours Sold and Delivered (To nearest 0.001)	STATE									
Delivered (To nearest 0.001)		l dollars)								
Number of Customers	Delivered	old and								
	Number of Custom	ners								

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Company Name:			_					
Company ID:	Company ID: Reporting Month/Year:							
SCHEDULE 2. PART B. SALES TO ULTIMATE CUSTOMERS - ENERGY-ONLY SERVICE (WITHOUT DELIVERY SERVICE)								
	RESIDENTIAL	COMMERCIAL	INDUSTRIAL	TRANSPORTATION	TOTAL			
	(a)	(b)	(c)	(d)	(e)			
STATE								
Revenue (thousand dollars) (To nearest 0.001)								
Megawatthours Sold (To nearest 0.001)								
Number of Customers								
Names of Companies within each State providing Delivery Service								
STATE								
Revenue (thousand dollars) (To nearest 0.001)								
Megawatthours Sold (To nearest 0.001)								
Number of Customers								
Names of Companies within each State providing Delivery Service								
STATE								
Revenue (thousand dollars) (To nearest 0.001)								
Megawatthours Sold (To nearest 0.001)								
Number of Customers								
Names of Companies within each State providing Delivery Service								

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Company Name:			_		
Company ID:		ı	Reporting Month/Year	<u> </u>	
SCHEDULE 2. PART (C. SALES TO ULTI	MATE CUSTOMERS -	DELIVERY-ONLY S	ERVICE (AND ALL OT	HER CHARGES)
	RESIDENTIAL (a)	COMMERCIAL (b)	INDUSTRIAL (c)	TRANSPORTATION (d)	TOTAL (e)
STATE				, ,	
Revenue (thousand dollars) (To nearest 0.001)					
Megawatthours Delivered (To nearest 0.001)					
Number of Customers					
List Names of Companies (primarily Power Marketers) Within the State for which Electricity is Delivered to an end use customer					
STATE					
Revenue (thousand dollars) (To nearest 0.001)					
Megawatthours Delivered (To nearest 0.001)					
Number of Customers					
List Names of Companies (primarily Power Marketers) Within the State for which Electricity is Delivered to an end use					

customer

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Company Name:			_			
Company ID:		F	Reporting Month/Yea	r:		
SCHEDULE 2. PART [MATE CUSTOMERS – MARKETER THAT PR		BY RETAIL ENERGY D SERVICE."	PROVIDERS, OR	
	RESIDENTIAL	COMMERCIAL	INDUSTRIAL	TRANSPORTATION TOTAL		
	(a)	(b)	(c)	(d)	(e)	
STATE						
Revenue (thousand dollars) (To nearest 0.001)						
Megawatthours Delivered (To nearest 0.001)						
Number of Customers						
STATE						
Revenue (thousand dollars) (To nearest 0.001)						
Megawatthours Delivered (To nearest 0.001)						
Number of Customers						
STATE						
Revenue (thousand dollars) (To nearest 0.001)						
Megawatthours Delivered (To nearest 0.001)						
Number of Customers						
STATE						
Revenue (thousand dollars) (To nearest 0.001)						
Megawatthours Delivered (To nearest 0.001)						
Number of Customers						

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Compan	y Name:						
Compan	y ID:	<u> </u>		Reporting Mor	nth/Year:		
			SCHEDUL	E 3. PART A. GRE			
		are voluntary programs who Green Pricing that involves t				newable sources. Renewable E eration.	nergy Certificates
Line No.	STATE		RESIDENTIAL (a)	COMMERCIAL (b)	INDUSTRIAL (c)	TRANSPORTATION (d)	TOTAL (e)
1.	(Thou	Pricing Revenue sand Dollars) arest 0.001)					
2.	(MWh	Pricing Sales - s) earest 0.001)					
3.	Total Green F	Pricing Customers					
4.		n RECs sand Dollars) arest 0.001)					
5.	REC Sales (MWhs (To ne	s) arest 0.001)					

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Form Approved OMB No. 1905-0129 Approval Expires: 12/31/2013

	Buiden. 1.6 hours
Company Name:	
Company ID:	Reporting Month/Year:
	SCHEDULE 3, PART B. NET METERING
	power they generate back to the electrical grid to offset consumption. For net metering applications of 2 MW
nameplate capacity and less, provide the information ab	out programs by State and customer class.

STATE		RESIDENTIAL (a)	COMMERCIAL (b)	INDUSTRIAL (c)	TRANSPORTATION (d)	TOTAL (e)
	If Available, Enter the Electric Energy Sold Back to the Utility (MWh)					
Photovoltaic	Installed Net Metering Capacity (MW)					
	Number of Net Metering Customers					
Wind	If Available, Enter the Electric Energy Sold Back to the Utility (MWh)					
	Installed Net Metering Capacity (MW)					
	Number of Net Metering Customers					
	If Available, Enter the Electric Energy Sold Back to the Utility (MWh)					
CHP/Cogen	Installed Net Metering Capacity (MW)					
	Number of Net Metering Customers					
	If Available, Enter the Electric Energy Sold Back to the Utility (MWh)					
Other	Installed Net Metering Capacity (MW)					
	Number of Net Metering Customers					
	Total Energy Sold Back to the Utility (MWh)					
Total	Installed Net Metering Capacity (MW)					
	Number of Net Metering Customers					

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Company Name:							
Company ID: Reporting Month/Year:							
	S	CHEDULE	3. PART C. ADVA	NCED METERII	NG		
Only customers from Schedo			dule. AMR – transmitt			ty. AMI – data can be	
State		DENTIAL (a)	COMMERCIAL (b)	INDUSTRIAL (c)	TRANSPORTATION (d)	TOTAL (e)	
Number of AMR Meters			\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \		()		
Number of AMI Meters							
Energy Served Through AMI Me (To nearest 0.001)	ters (MWh)						
State		DENTIAL (a)	COMMERCIAL (b)	INDUSTRIAL (c)	TRANSPORTATION (d)	TOTAL (e)	
Number of AMR Meters					,	, ,	
Number of AMI Meters							
Energy Served Through AMI Me (To nearest 0.001)	ters (MWh)						
State		DENTIAL (a)	COMMERCIAL (b)	INDUSTRIAL (c)	TRANSPORTATION (d)	TOTAL (e)	
Number of AMR Meters			• • • • • • • • • • • • • • • • • • • •				
Number of AMI Meters							
Energy Served Through AMI Me (To nearest 0.001)	eters (MWh)						

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Company Name:					
Company ID:		Reporting Month/Yea	r:		
SCHEDULE 4. MERGERS AND/OR ACQUISITIONS					
Mergers and/or acquisitions during the reporting month:		Yes			
Mergers and/or acquisitions during the re	porting month.		No		
If Yes, Provide:					
Date of Merger or Acquisition				Address	
Company merged with or acquired				Contact name:	Telephone No
Name of new parent company				Email address:	

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Company Name:		
Company ID:	Reporting Month/Yea	r:
	SCHEDULE 5. COMMENTS	
If explanation of any provided data is needed, please	provide that information here.	



Subject: United States Department of Energy – EIA Annual Data Collection, Form EIA-860

Dear Respondent:

The Energy Information Administration's (EIA), e-filing system is now ready for you to report your annual electric data for the year 2009. You are required to file **Form EIA-860**, "**Annual Electric Generator Report.**" The survey is due no later than May 14, 2010. The 2009 Form EIA-860 survey represents the status of plants and associated equipment as of December 31, 2009. Please verify and update the data as necessary. The EIA electric surveys are a mandatory collection under the authority of the Federal Energy Administration Act of 1974 (P.L. 93-275). Non-respondents and late filers are subject to financial penalties. The EIA encourages you to file your data using our e-filing system.

We currently have the following companies associated with you as the primary contact for the EIA-860: <% UTILITIES%>

If you are currently registered in the e-filing system for secure electronic access with a Single Sign-On (SSO) account, you can login to the e-file system at: https://signon.eia.doe.gov/ssoserver/login and enter your User ID and Password to access your EIA surveys.

If you are registered and have forgotten your password, but know the User ID, you can reset your password. Log on to the e-filing system at the website listed above. Type your User ID and click on Forgot Your Password. Follow the prompts and you will be allowed to reset your password. Please pay special attention to the password rules and be sure to record your new password. If you need assistance resetting your password, please call the Help Center at (202) 586-9595 or contact us via e-mail at: cneafhelpcenter@eia.doe.gov.

If you are not registered, please contact the CNEAF Help Center at (202) 586-9595 or via e-mail. Please choose only one method of contact for the CNEAF Help Center, either telephone or e-mail. Please do not do both. When you receive your new credentials, register immediately. Your credentials will expire in 30 days.

You must contact us if a record(s) for new or missing plant(s) needs to be added to Schedule 2. However, you have the capability to add record(s) for new or missing generator(s) in Schedule 3. Fields for certain data are unlikely to change. These fields (e.g., geographic location of power plant, initial year of commercial operation of generator) have been locked if data already exist in the fields. For such fields, if the data are incorrect, please contact me at 202-586-1029 with the correct data, or enter the correct data in Schedule 7 along with the identifiers and form location of the data. Otherwise, if the field is null, please provide the missing data, if applicable. To add a record for boiler or other equipment in Schedule 6A, please contact the EIA with the identifiers that your company uses to identify the equipment and we will add them to that schedule.

Edits have been built into the e-filing system to assist you in providing accurate data. In order to successfully submit your forms, you must run the edits and address the warning messages for all flagged data by either correcting and/or commenting on each of the flagged data elements. Please go to the Error Log and click on the "Run EIA-860 Edits" button. Once you have corrected and/or commented on the appropriate edit flags, you should be able to submit your data by pressing the "Submit" button. If your data are accepted you should receive a message stating that your data have been successfully submitted.

The timely submission of Form EIA-860 by those required to report is mandatory under Section 13(b) of the Federal Energy Administration Act of 1974 (FEAA) (Public Law 93-275), as amended. Failure to respond may result in a

penalty of not more than \$2,750 per day for each civil violation, or a fine of not more than \$5,000 per day for each criminal violation. The government may bring a civil action to prohibit reporting violations, which may result in a temporary restraining order or a preliminary or permanent injunction without bond. In such civil action, the court may also issue mandatory injunctions commanding any person to comply with these reporting requirements. Title 18 U.S.C. 1001 makes it a criminal offense for any person knowingly and willingly to make to any Agency or Department of the United States any false, fictitious, or fraudulent statements as to any matter within its jurisdiction.

Your cooperation is greatly appreciated.

Sincerely,

Patricia (Trisha) Hutchins
EIA-860 Survey Analyst
Electric Power Division
Office of Coal, Nuclear, Electric and Alternate Fuels
Energy Information Administration

U.S. Department of Energy U.S. Energy Information Administration Form EIA-860 (2011)

ANNUAL ELECTRIC GENERATOR REPORT INSTRUCTIONS

Form Approved
OMB No. 1905-0129
Approval Expires: 12/31/2013
Burden: 9.4 hours

PURPOSE

Form EIA-860 collects data on the status of existing electric generating plants and associated equipment (including generators, boilers, cooling systems and flue gas desulfurization systems) in the United States, and those scheduled for initial commercial operation within 10 years of the specified reporting period. The data from this form appear in several EIA publications; including the *Electric Power Monthly, Electric Power Annual*, and the *Annual Energy Review*. The data collected on this form are used to monitor the current status and trends of the electric power industry and to evaluate the future of the industry.

REQUIRED RESPONDENTS

The required respondents for Form EIA-860 are all existing plants and proposed (10-year plans) plants that: 1) have a total generator nameplate capacity (sum for generators at a single site) of 1 MW or greater; and 2) where the generator(s), or the facility in which the generator(s) resides, is connected to the local or regional electric power grid and has the ability to draw power from the grid or deliver power to the grid. See General Instructions for related details to determine total capacity at a site.

In the case of generators located in Alaska and Hawaii which are not a part of the North American interconnected grid, generators that are connected to a "public grid," meaning a local or regional transmission or distribution system that supplies power to the public, must be reported on Form EIA-860.

The operator or planned operator of jointly-owned plants should be the only respondent for those plants.

RESPONSE DUE DATE

Submit the completed Form EIA-860 directly to the EIA annually on or before February 15.

METHODS OF FILING RESPONSE

Submit your data electronically using EIA's secure e-filing system. This system uses security protocols to protect information against unauthorized access during transmission.

- If you have not registered with EIA's Single Sign-On system, send an email requesting assistance to: EIA-860@eia.gov
- If you have registered with Single Sign-On, log on at https://signon.eia.gov/ssoserver/login
- If you are having a technical problem with logging into the e-filing system or using the e-filing system contact the Help Center for further information. Contact the Help Desk at:

Email: <u>CNEAFhelpcenter@eia.gov</u> Phone: 202-586-9595

If you need an alternate means of filing your response, contact the Help Desk.

Please retain a completed copy of this form for your files.

CONTACTS

Internet System Questions: For questions related to the e-filing system, see the help contact information immediately above.

Data Questions: For questions about the data requested on Form EIA-860, contact the survey staff:

Patricia Hutchins
Telephone Number: (202) 586-1029
Fax Number: (202) 287-1960
Email: Patricia.Hutchins@eia.gov

Vlad Dorjets
Telephone Number: (202) 586-3141
Fax Number: (202) 287-1960
Email: Vlad.Dorjets@eia.gov

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GENERAL INSTRUCTIONS

- Verify all EIA provided information. If incorrect, revise the incorrect entry and provide the correct information. State codes are two-letter U.S. Postal Service abbreviation. Provide any missing information. If filing a paper copy of this form, typed or legible handwritten entries are acceptable. Allow the original entry to remain readable. See more specific instructions for correcting data in SCHEDULE 2. POWER PLANT DATA, and SCHEDULE 3. GENERATOR INFORMATION.
- 2. Check all data for consistency with the same or related data that appear in more than one schedule of this form or in other forms or reports submitted to EIA. Explain any inconsistencies in SCHEDULE 7. COMMENTS.
- 3. For planned power plants and/or planned equipment, use planning data to complete the form.
- Report in whole numbers (i.e., no decimal points), except where explicitly instructed to report otherwise.
- 5. Indicate negative amounts by using a minus sign before the number.
- 6. Report date information as a two-digit month and four-digit year, e.g., "11 1980."
- 7. Furnish the requested information to reflect the status of your current or planned operations as of the end of the data year. If your company no longer operated a specific power plant as of December 31, report the name of the operator as of December 31 along with related contact information (including contact person's name, telephone number and email address, if known) in SCHEDULE 7. COMMENTS. Do not complete the form for that power plant.
- 8. To request additional blank schedules contact the U.S. Energy Information Administration using the contact information on page 1, or download the form from http://www.eia.gov/cneaf/electricity/page/forms.html.
- 9. For definitions of terms, refer to the U.S. Energy Information Administration glossary at http://www.eia.gov/glossary/index.html.
- 10. For the purpose of determining reporting requirements, the capacity of a power plant is the sum of the maximum ratings (in megawatts) on the nameplates of all applicable generators at a specific site. For photovoltaic (PV) solar, use the AC ratings of the array for a specific site.

ITEM-BY-ITEM INSTRUCTIONS

SCHEDULE 1. IDENTIFICATION

- Survey Contact: Verify contact name, title, address, telephone number, fax number, and email address.
- 2. **Supervisor of Contact Person for Survey:** Verify the contact's supervisor's name, title, address, telephone number, Fax number and email address.
- 3. **Report For:** Verify all information, including operator name, operator identification number, and year for which data are being reported. These fields cannot be revised online. Contact EIA if corrections are needed.

If any of the above information is incorrect, revise the incorrect entry and provide the correct information. Provide any missing information.

Operator and Preparer Information:

4. For Legal Name of Operator, enter the name. The operator of the power plant is the electric power producer owner/joint owner of the plant or a subsidiary of the electric power producer who has a working interest in the plant and who is responsible for making the strategic decisions related to the management and physical operation of the power plant. The operator entity may also be an electric power producer or a subsidiary of an electric power producer who operates a power plant that is wholly owned by another electric power producer. Operator excludes energy

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services companies under contract to operate the plant for the electric power producer; in these cases, the electric power producer should be reported as the legal operator.

- 5. For **Current Address of Principal Business Office of Plant Operator**, enter the principal name and address of where the operator's principal office is located. Include an attention line, room number, building designation, etc.
- 6. For Preparer's Legal Name, enter the name if different from Legal Name of Operator.
- 7. For **Current Address of Preparer's Office** enter preparer's current address if it is different from the address of the **Legal Name of Operator**.
- 8. For **Is the Operator an Electric Utility or Owned by an Electric Utility**; check "Yes" if so. Otherwise check "No."

SCHEDULE 2. POWER PLANT DATA

Verify or complete one section for each existing power plant and each power plant planned for initial commercial operation within 10 years of the specified reporting period. To report a new plant or a plant that is not already identified, use a blank SCHEDULE 2.

- 1. For line 1, **Plant Name** and **EIA Plant Code**, enter the name of the power plant, and the EIA Plant Code for the power plant. Each power plant must be uniquely identified. The type of plant does not need to be a part of the plant name, e.g., "Plant x Hydro" needs to be reported as "Plant x" only. The type of plant is recognized by the prime mover code(s) reported in SCHEDULE 3. GENERATOR INFORMATION. There may be more than one prime mover type associated with a single plant name (single site). Enter "NA 1," "NA 2," etc., for planned facilities that have no name(s).
- 2. For line 2, Street Address, enter the street address of the power plant.
- 3. For line 3, **County Name** and **City Name**, enter the county and city in which the plant is (will be) located. Enter "NA" for planned facilities that have not been sited. If a mobile power plant, indicate with a note in SCHEDULE 7. COMMENTS.
- 4. For line 4, **State**, enter the two-letter U.S. Postal Service abbreviation for the State in which the plant is located. Enter "NA" for planned facilities for which the State has not been determined. If the State is "NA," the county name must be "NA."
- 5. For line 5, **Zip Code**, enter the zip code of the plant. Provide, at a minimum, the five-digit zip code; however, the nine-digit code is preferred.
- 6. For line 6, **Latitude and Longitude**, enter the latitude and longitude of the plant in degrees, minutes, and seconds.
- 7. For line 7, Enter Datum for Latitude and Longitude, if Known; Otherwise Enter "UNK" the longitude and latitude measurement for a location depends in part on the coordinate system (or "datum") to which the measurement is keyed. "Datum systems" used in the United States, include the North American Datum 1927 (NAD27), North American Datum 1983 (NAD83) and World Geodetic Survey 1984 (WGS84). If you know the datum system for the plant longitude and latitude, enter the system name (e.g., NAD83) on line 7. If you do not know the datum system used, enter UNK.
- 8. For line 8a, **NERC Region**, enter the NERC region in which the plant is located.
- 9. For line 8b, **Does this Plant Belong to a RTO or ISO?**, check "Yes" or "No" for whether the plant belongs to a Regional Transmission Operator or Independent System Operator.
- 10. For line 8c, **Name of RTO or ISO**, if you answered "Yes" in line 8b, select the RTO or ISO from the list. If your RTO or ISO does not appear on the list, select "Other" and explain in SCHEDULE 7. COMMENTS.
- 11. For line 9, **Name of Water Source**, enter the name of the principal source from which cooling water for thermal-electric plants and water for generating power for hydroelectric plants is

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directly obtained or the water source for hydrokinetic projects. If more than one water source is (will be) used, enter the name(s) of the other sources of water in SCHEDULE 7. COMMENTS. Enter "Municipality" if the water is from a municipality. Enter "wells" if water is from wells. Enter "NA" for planned facilities for which the water source is not known.

- 12. For line 10, **Steam Plant Status**, and line 11, **Steam Plant Type**, enter the appropriate status and type if this plant is a combustible-fueled steam generators, including heat recovery steam generators with duct firing and combustible renewable-fueled generators.
- 13. For line 12, **Primary Purpose of the Plant**, enter the North American Industry Classification System (NAICS) code that best describes the primary purpose of the reporting plant. Electric utility plants will generally use code 22. Independent power producers whose sole or primary business is the sale of electricity will also generally use code 22. For industrial and commercial generators whose primary business is an industrial or commercial process (e.g., paper mills, refineries, chemical plants, etc.), use Table 2 in these instructions to determine the code.
- 14. For line 13, **Does this plant have Federal Energy Regulatory Commission (FERC) Qualifying Facility (QF) Cogenerator Status?**, check "Yes" or "No"; if "Yes" provide all QF docket numbers granted to the facility. Please do not include the prefix (e.g. QF, EWG, etc.) when entering the docket numbers. Only include the numerical portion of the docket number, including dashes.
- 15. For line 14, **Does this plant have Federal Energy Regulatory Commission (FERC) Qualifying Facility (QF) Small Power Producer Status?**, check "Yes" or "No"; if "Yes" provide all QF docket numbers granted to the facility. Please do not include the prefix (e.g. QF, EWG, etc.) when entering the docket numbers. Only include the numerical portion of the docket number, including dashes.
- 16. For line 15, **Does this plant have Federal Energy Regulatory Commission (FERC) Qualifying Facility (QF) Exempt Wholesale Generator Status?**, check "Yes" or "No"; if "Yes" provide all QF docket numbers granted to the facility. Please do not include the prefix (e.g. QF, EWG, etc.) when entering the docket numbers. Only include the numerical portion of the docket number, including dashes.
- 17. For line 16a, **Owner of Transmission/Distribution Facilities**, enter the name of the **current** owner of the transmission or distribution facilities to which the plant is interconnected. If the plant is interconnected to multiple owners, enter the name of the principal owner and list the other owners and their roles in SCHEDULE 7. COMMENTS.
- 18. For line 16b, **Grid Voltage (in kilovolts)**, enter the grid voltage at the point of interconnection to the transmission/distribution facilities. If the plant is interconnected to multiple transmission/distribution facilities, enter the highest grid voltage and list the other grid voltages in SCHEDULE 7. COMMENTS.

SCHEDULE 3. GENERATOR INFORMATION

- 1. Verify or complete for each existing or planned generator. Complete one column for each generator (up to three generators can be reported on one page) for all generators that are: (1) in commercial operation (whether active or inactive), or (2) expected to be in commercial operation within 10 years of the specified reporting period and are either planned, under construction, or in testing stage. Do not report auxiliary generators.
- 2. To report a new generator, use a separate (blank) section of SCHEDULE 3. To report a new generator that has replaced one that is no longer in service, update the status of the generator that has been replaced along with other related information (e.g., retirement date), then use a separate (blank) section of SCHEDULE 3 to report all of the applicable data about the new generator. Each generator must be uniquely identified within a plant. The EIA cannot use the same generator ID for the new generator that was used for the generator that was replaced.

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SCHEDULE 3. PART A. GENERATOR INFORMATION - GENERATORS

- 1. For line 1, **Plant Name**, enter the official or legal name of the power plant as reported on SCHEDULE 2. POWER PLANT DATA.
- 2. For line 2, **EIA Plant Code**, enter the EIA plant code as reported on SCHEDULE 2. POWER PLANT DATA.
- For line 3, Operator's Generator Identification, enter the unique generator identification commonly used by plant management. Generator identification can have a maximum of four characters, and should be the same identification as reported on other EIA forms to be uniquely defined within a plant.
- 4. For line 4, Associated Boiler Identifications, enter, for combustible-fueled steam generators, including heat recovery steam generators with duct firing and combustible renewable-fueled generators with total generator nameplate capacity of 10 MW or greater, the identification (ID) code for each boiler that provides steam to the generator. The ID should match those provided in SCHEDULE 6. BOILER INFORMATION. The applicable parts of SCHEDULE 6. BOILER INFORMATION must be completed for each boiler.
- 5. For line 5, **Prime Mover**, enter one of the prime mover codes below. For combined cycle units, a prime mover code must be entered for each generator.

Prime Mover Code	Prime Mover Description
ВА	Energy Storage, Battery
CP	Energy Storage, Concentrated Solar Power
FW	Energy Storage, Flywheel
ES	Energy Storage, Other (specify in SCHEDULE 7. COMMENTS)
ST	Steam Turbine, including nuclear, geothermal and solar steam (does not
СТ	include combined cycle)
GT IC	Combustion (Gas) Turbine (includes jet engine design)
CA	Internal Combustion Engine (diesel, piston, reciprocating)
CT	Combined Cycle Steam Part Combined Cycle Combustion Turbing Part (type of each or colid must be
CI	Combined Cycle Combustion Turbine Part (type of coal or solid must be reported as energy source for integrated coal gasification).
CS	Combined Cycle Single Shaft (combustion turbine and steam turbine share
00	a single generator)
CC	Combined Cycle Total Unit (use only for plants/generators that are in
00	planning stage, for which specific generator details cannot be provided)
HA	Hydrokinetic, Axial Flow Turbine
HB	Hydrokinetic, Wave Buoy
HK	Hydrokinetic, Other (specify in SCHEDULE 7. COMMENTS)
HY	Hydroelectric Turbine (Conventional Hydroelectric; includes turbines
	associated with delivery of water by pipeline)
PS	Hydraulic Turbine, Reversible (pumped storage)
BT	Turbines Used in a Binary Cycle (including those used for geothermal
	applications)
PV	Photovoltaic
WT	Wind Turbine
CE	Compressed Air Energy Storage
FC	Fuel Cell
ОТ	Other (specify in SCHEDULE 7. COMMENTS)

Combined heat and power systems often generate steam with multiple sources and generate electric power with multiple prime movers. For reporting purposes, a simple cycle prime mover should be distinguished from a combined cycle prime mover by determining whether the power generation part of the steam system can operate independently of the rest of the steam system. If these system components cannot be operated independently, then the prime movers should

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be reported as combined cycle types.

- 6. For line 6, **Unit Code (Multi-Generator Code)**, identify all generators that are operated with other generators as a single unit. Generators operating as a single unit should have the same unit (multi-generator code) code or four-character identifier. Identify combined cycle generators that operate as a unit with a unique four-character identifier. All generators that operate as a unit in combined cycle must have the same unique identifier. If generators do not operate as a single unit, this space should be left blank.
- 7. For line 7, **Ownership**, identify the ownership for each generator using the following codes: "S" for single ownership by respondent, "J" for jointly owned with another entity or "W" for wholly owned by an entity other than respondent.
- 8. For line 8, **Is this generator an electric utility generator?**, an *electric utility generator* shall mean a generator that is owned by an electric utility, or a jointly owned generator with the greatest share of the generator being electric utility owned. (Note: If two or more owners have equal shares of ownership in a generator, it is considered to be an electric utility generator if any one of the owners meets the definition of electric utility). For each electric utility generator, check "Yes" or "No."
- 9. For line 9, Date of Sale, If Sold, enter the month and year of the sale of the generator (e.g., 12-2007), if the generator has been sold in its entirety. For changes in shares of ownership only, with no change in operator, report in SCHEDULE 4. OWNERSHIP OF GENERATORS OWNED JOINTLY OR BY OTHERS. In SCHEDULE 7. COMMENTS provide the legal name, business address, contact person, phone number and email address of the entity to which this generator was sold.
- 10. For line 10, **Can This Generator Deliver Power to the Transmission Grid**?, indicate if the generator can or cannot deliver power to the transmission grid.
- 11. For line 11, **if the prime mover is "CA,"** (combined-cycle steam), "CS" or "CC" check "Yes" if the unit has duct-burners for supplementary firing of the turbine exhaust gas. Otherwise, check "No." If "Yes" SCHEDULE 6. BOILER INFORMATION must be completed, as applicable.

SCHEDULE 3, PART B. GENERATOR INFORMATION – EXISTING GENERATORS

- 1. For line 1, **Generator Nameplate Capacity**, report the highest value on the nameplate in megawatts rounded to the nearest tenth. If the nameplate capacity is expressed in kilovolt amperes (kVA), convert to kilowatts by multiplying the corresponding power factor by the kVA, divide by 1,000 to express in megawatts to the nearest tenth. If generator nameplate capacity is exceeded by net summer capacity, provide the reason(s) in SCHEDULE 7. COMMENTS.
- 2. For line 2, **Net Capacity**, enter the generator's net summer and net winter capacities for the primary energy source. Report in megawatts, rounded to the nearest tenth. For generators that are out of service for an extended period or on standby or have no generation during the respective seasons, report the estimated capacities based on historical performance. For generators that are tested as a unit, a single aggregate net summer capacity and a single aggregate net winter capacity may be reported. For hydroelectric, report the instantaneous capacity at maximum waterflow.
- 3. For line 3a, **Maximum Expected Reactive Power Output (MVAR)**, enter the maximum reactive power outputs (MVAR) at the high side of the generator step-up transformer for generators with nameplate capacity of 10 MW or greater. A MVAR is a Mega Voltampere Reactive.
- 4. For line 3b, Maximum Reactive Power Absorption (MVAR), enter the maximum reactive power absorptions of the generator at the high side of the generator step-up transformer for generators with nameplate capacity of 10 MW or greater. A MVAR is a Mega Voltampere Reactive.

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5. For line 4, **Status Code**, enter one of the following status codes:

Status Code	Status Code Description
OP	Operating - in service (commercial operation) and producing some
	electricity. Includes peaking units that are run on an as needed (intermittent or seasonal) basis.
SB	Standby/Backup - available for service but not normally used (has little or no generation during the year) for this reporting period.
OA	Out of service – was not used for some or all of the reporting period but was either returned to service on December 31 or will be returned to service in the next calendar year.
OS	Out of service – was not used for some or all of the reporting period and is NOT expected to be returned to service in the next calendar year.
RE	Retired - no longer in service and not expected to be returned to service.

- 6. For line 5, **Synchronized to the Grid**, if the status code entered on line 4 is standby (SB) please note if the generator is currently equipped such that, when operating, it can be synchronized to the grid.
- 7. For line 6, Initial Date of Operation, enter the month and year of initial commercial operation.
- 8. For line 7, **Retirement Date**, enter the month and year that the generator was retired.
- 9. For line 8, **Is this generator associated with a Combined Heat and Power system** check either "Yes" or "No." If the answer is "Yes," check whether the generator is part of a topping or bottoming cycle, as applicable. In a topping cycle system, electricity is produced first and any waste heat from that production is used in a manufacturing process or for direct heating, and/or space heating/cooling. In a bottoming cycle system, thermal output is used in a process other than electricity production and any waste heat is then used to produce electricity.
- 10. For line 9, **Predominant Energy Source**, enter the energy source code for the fuel used in the largest quantity (Btus) during the reporting year to power the generator. For generators that are out of service for an extended period of time or on standby, report the energy sources based on the generator's latest operating experience. Select appropriate energy source codes from Table 1 in these instructions. For generators driven by turbines using steam that is produced from waste heat or reject heat, report the original energy source used to produce the waste heat (reject heat).
- 11. For line 9a, if the predominant energy source for powering the generator is coal or petroleum coke, check all types of technology and steam conditions that apply.
- 12. For line 10, if the prime mover is ST (steam turbine) report the **Start-Up and Flame Stabilization Energy Sources** used by the combustion unit(s) associated with this generator; otherwise leave blank.
- 13. For line 11, **Second Most Predominant Energy Source**, enter the energy source code for the energy source used in the second largest quantity (Btus) during the reporting year to power the generator. DO NOT include a fuel used only for start-up or flame stabilization. Select appropriate energy source codes from Table 1 in these instructions. For generators driven by turbines using steam that is produced from waste heat or reject heat, report the original energy source used to produce the waste heat (reject heat).
- 14. For line 12, Other Energy Sources, enter the codes for other energy sources: first, list the energy sources actually used in order of predominance (based on quantity of Btus), then list ones that the generator was capable of using but was not used to generate electricity during the last 12 months. For generators that are out of service for an extended period of time or on standby, report the energy sources based on the generator's latest operating experience. Select appropriate energy source codes from Table 1 in these instructions. For generators driven by turbines using steam that is produced from waste heat or reject heat, report the original energy source used to produce the waste heat (reject heat)

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- 15. For line 13, **Is This Generator Part of a Solid Fuel Gasification System**, check "Yes" or "No" as appropriate.
- 16. For line 14, **Number of Turbines, Buoys, or Inverters**, if energy source is wind, enter the number of turbines; if the energy source is wave energy, enter the number of buoys; if energy source is other hydrokinetics, enter the number of turbines; if the energy source is solar photovoltaic, enter the number of inverters.
- 17. For line 15a, **Tested Heat Rate**, enter the tested heat rate under full load conditions for all combustible-fueled generators, nuclear-fueled generators, concentrated solar generators and geothermal generators. Report the heat rate as the fuel consumed in British thermal units (Btus) necessary to generate one net kilowatthour of electric energy. Report the tested heat rate under full load, not the actual heat rate, which is the quotient of the total Btu(s), consumed and total net generation. If generators are tested as a unit (not tested individually), report the same test result for each generator. For generators that are out of service for an extended period or on standby, report the heat rate based on the unit's latest test. If the generator is associated with a combined heat and power (CHP) system and no tested heat rate data are available, report either the manufacturer's specification for heat rate or an estimated heat rate. DO NOT report a heat rate that includes the fuel used for the production of useful thermal output. For Internal Combustion units, a manufacturer's specification or estimated heat rate should be reported, if no tested heat rate is available. For solar photovoltaic generators, provide the average module efficiency for all installed modules. If the reported value is not a tested heat rate, specify in SCHEDULE 7. COMMENTS.
- 18. For line 15b, **Fuel Used for Heat Rate Test**, enter the fuel code or "M" for multiple fuels for the fuel used to calculate the heat rate reported above. Select appropriate energy source codes from Table 1 in these instructions. For generators driven by turbines using steam that is produced from waste heat or reject heat, report the original energy source used to produce the waste heat (reject heat).
- 19. For line 16, Annual Average Operating Efficiency for Solar Photovoltaic, Wind and Hydroelectric Generators, enter the annual average operating efficiency for solar photovoltaic, wind and hydroelectric generators.

Proposed Changes to Existing Generators (within the next 10 years)

- 20. For line 17a, indicate whether there are any planned capacity up-rates/de-rates, repowering, other modifications, or generator retirements scheduled to take place within the next 10 years.
- 21. For line 17b, **Planned Uprates**, enter the increase in capacity expected to be realized from the uprate. Enter the planned effective date (MM-YYYY) that the generator is scheduled to enter operation after the modification.
- 22. For line 17c, **Planned Derates**, enter the decrease in capacity expected to be realized from the derate. Enter the planned effective date (MM-YYYY) that the generator is scheduled to enter operation after the modification.
- 23. For line 17d, **Planned Repowering**, if a repowering of the generator is planned, enter the new prime mover, the new energy source, and new nameplate capacity as well as the planned effective date (MM-YYYY) that the generator is scheduled to enter operation after the repowering is complete.
- 24. For line 17e, **Other Modifications**, enter the planned effective date (MM-YYYY) that the generator is scheduled to enter commercial operation after any other planned change is complete, that is not included in lines 17b through 17d. Please provide details of the planned change in SCHEDULE 7. COMMENTS. Other planned changes may include a second up-rate or de-rate to a unit or a reactivation of a previously retired generator,
- 25. For line 17f, **Retirement**, if the generator is expected to be retired within the next 10 years, enter the planned effective date (MM-YYYY) of that scheduled retirement.
- 26. For line 18, Can This Generator be Powered by Multiple Fuels?, indicate if the combustion

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system that powers each generator has both:

- The regulatory permits necessary to either co-fire fuels or fuel switch, and
- The equipment, including fuel storage facilities in working order, necessary to either co-fire fuels or fuel switch.

If the answer to this question is "No," go to SCHEDULE 3, PART C. GENERATOR INFORMATION - PROPOSED GENERATORS.

Note: **Co-firing** means the simultaneous use of two or more fuels by a single combustion system to meet load. **Fuel switching** means the ability of a combustion system running on one fuel to replace that fuel in its entirety with a substitute fuel. Co-firing and fuel switching exclude the limited use of a second fuel for start-up or flame stabilization.

- 27. For line 19, **Can This Unit Co-Fire Fuels?**, indicate whether or not the combustion system that powers the generator has, in working order, the equipment and the regulatory permits necessary to co-fire fuels. If the answer is "No," skip to line 23.
- 28. For line 20, **Fuel Options for Co-Firing**, indicate up to six fuels that can be co-fired. Select appropriate energy source codes from Table 1 in these instructions. Note: fuel options listed for co-firing must also be included under either "Predominant Energy Source" (line 9), "Second Most Predominant Energy Source" (line 11), or "Other Energy Sources (line 12).
- 29. For line 21, **Can This Generator be Powered by Co-Fired Fuel Oil and Natural Gas?**, indicate if the combustion system that powers the generator can co-fire fuel oil with natural gas. If the answer is "No," skip to line 23.
- 30. For line 22, **Can This Generator be Run on 100% Oil?**, indicate whether or not the combustion system that powers the generator can run on 100 percent oil. If the answer to this question is "Yes," skip to line 23. If it is "No," indicate the maximum percentage of the heat input to the combustion system (percent of MMBtu) that can be supplied by oil when co-firing with natural gas, taking into account all applicable legal, regulatory, and technical limits. Also provide the maximum output (summer net MW) that the unit can achieve, taking into account all applicable legal, regulatory, and technical limits when making the maximum use of oil and co-firing natural gas.
- 31. For line 23, **Can This Unit to Fuel Switch?**, indicate whether or not the combustion system that powers the generator has, in working order, the equipment necessary to fuel switch and the regulatory permits to fuel switch. If "No," skip to SCHEDULE 3, PART C, GENERATOR INFORMATION PROPOSED GENERATORS.
- 32. For line 24, **Can This Unit Switch Between Oil and Natural Gas?**, indicate whether or not the combustion system that powers the generator has, in working order, the equipment and the regulatory permits necessary to switch between oil and natural gas. If "No," go to line 26. If "Yes," indicate whether the unit can switch fuels while operating (i.e., without shutting down the unit). Also enter the maximum output (summer net MW) that the unit can achieve, taking into account all applicable legal, regulatory, and technical limits, when running on natural gas, the maximum output (summer net MW) that the unit can achieve, taking into account all applicable legal, regulatory, and technical limits, when running on oil, and how long it takes to switch the generator from using 100 percent natural gas to 100 percent oil.
- 33. For line 25, Are There Factors That Limit the Unit's Ability to Switch From Natural Gas to Oil?, indicate whether or not there are factors that limit the operation of the generator (e.g., limits on maximum output, limits on annual operating hours), when running on 100 percent oil. Check all factors that limit the ability of this generator to switch from natural gas to oil.
- 34. For line 26, **Fuel Switching Options**, enter the codes for up to six fuels, including (if applicable) oil and natural gas, which can be used as a sole source of fuel to power the generator. Select appropriate energy source codes from the table in these instructions. Note: Fuel options listed for fuel switching must also be included under either "Predominant Energy Source" (line 9), "Second Most Predominant Energy Source" (line 11), or "Other Energy Sources (line 12).

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SCHEDULE 3, PART C. GENERATOR INFORMATION - PROPOSED GENERATORS

- For line 1, Generator Nameplate Capacity, enter the highest value on the nameplate in megawatts rounded to the nearest tenth. If the nameplate capacity is expressed in kilovolt amperes (kVA), convert to kilowatts by multiplying the corresponding power factor by the kVA, divide by 1,000 to express in megawatts to the nearest tenth. If the generator nameplate is not known at this time, estimate the nameplate rating for the generator and note this as an estimate in SCHEDULE 7. COMMENTS.
- 2. For line 2, **Net Capacity**, enter the generator's net summer and net winter capacities in megawatts rounded to the nearest tenth that are expected when the generator goes into commercial operation.
- 3. For line 3a, **Maximum Expected Reactive Power Output (MVAR)**, enter the maximum expected reactive power outputs (MVAR) at the high side of the generator step-up transformer for generators with nameplate capacity of 10 MW or greater. A MVAR is a Mega Voltampere Reactive.
- 4. For line 3b, **Maximum Reactive Power Absorption (MVAR)**, enter the maximum expected reactive power absorptions of the generator at the high side of the generator step-up transformer for generators with nameplate capacity of 10 MW or greater. A MVAR is a Mega Voltampere Reactive.
- 5. For line 4, **Status Code**, enter one of the following status codes:

Status Code	Status Code Description
IP	Planned new generator canceled, indefinitely postponed, or no longer in resource plan
TS	Construction complete, but not yet in commercial operation (including low power testing of nuclear units)
Р	Planned for installation but regulatory approvals not initiated; Not under construction
L	Regulatory approvals pending. Not under construction but site preparation could be underway
Т	Regulatory approvals received. Not under construction but site preparation could be underway
U	Under construction, less than or equal to 50 percent complete (based on construction time to date of operation)
V	Under construction, more than 50 percent complete (based on construction time to date of operation)
OT	Other (specify in SCHEDULE 7. COMMENTS)

- 6. For line 5, **Planned Original Effective Date**, enter the month and year of the original effective date that: 1) the generator was scheduled to start operation after construction is completed. (Please note that this date does not change once it has been reported the first time.)
- 7. For line 6, **Planned Current Effective Date**, enter the month and year of the current effective date that the generator is scheduled to start operation.
- 8. For line 7, Will This Generator be Associated with a Combined Heat and Power System? Check either "Yes" or "No."
- 9. For line 8, Will This Generator be Part of a Solid Fuel Gasification System?, check "Yes" or "No," as appropriate.
- 10. For line 9, indicate if this generator is part of a site that was previously reported by either your company or a previous owner as an indefinitely postponed or cancelled plant.
- 11. For line 10, **Expected Predominant Energy Source**, enter the energy source code for the energy source expected to be used in the largest quantity (Btus) when the generator starts commercial operation. Select appropriate energy source codes from Table 1 in these

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instructions.

- 12. For line 11, if the expected predominant energy source for powering the generator is coal or petroleum coke, check all the types of technology and steam conditions that apply.
- 13. For line 12, Expected Second Most Predominant Energy Source, enter the energy source code for the energy sources expected to be used in the second largest quantity (Btus) when the generator starts commercial operation. Select appropriate energy source codes from Table 1 in these instructions. Do not include fuels expected to be used only for start-up or flame stabilization.
- 14. For line 13, **Other Energy Source Options**, enter the codes for other energy sources that will be used at the plant to power the generator. Enter up to four codes in order of their expected predominance of use, where predominance is based on quantity of Btu(s) to be consumed. Select appropriate energy source codes from Table 1 in these instructions.
- 15. For line 14, **Number of Turbines, Buoys, or Inverters**, if the energy source will be wind, enter the number of turbines; if the energy source will be wave energy, enter the number of buoys; if the energy source will be other hydrokinetics, enter the number of turbines; if the energy source will be solar photovoltaic, enter the number of inverters.
- 16. For line 15, **Will This Generator be Able to be Powered by Multiple Fuels?**, indicate if the combustion system that will power each generator will have both:
 - The regulatory permits necessary to either co-fire fuels or fuel switch, and
 - The equipment, including fuel storage facilities, in working order, necessary to either co-fire fuels or fuel-switch.

If the answer is "No" or "Undetermined", go to SCHEDULE 4. OWNERSHIP OF GENERATORS OWNED JOINTLY OR BY OTHERS.

Note: **Co-firing** means the simultaneous use of two or more fuels by a single combustion system to meet load. **Fuel switching** means the ability of a combustion system running on one fuel to replace that fuel in its entirety with a substitute fuel. Co-firing and fuel switching exclude the limited use of a second fuel for start-up or flame stabilization.

- 17. For line 16, **Will this Unit be Able to Co-Fire Fuels?**, indicate whether or not the combustion system that will power the generator will have the equipment necessary to co-fire fuels and the regulatory permits to co-fire fuels. If "No," skip to line 20.
- 18. For line 17, **Fuel Options for Co-Firing**, indicate up to six fuels that the generator will be designed to co-fire. Select appropriate energy source codes from Table 1 in these instructions. Note: fuel options listed for co-firing must also be included under either "Predominant Energy Source" (line 9a), "Second Most Predominant Energy Source" (line 11), or "Other Energy Sources (line 13).
- 19. For line 18, **Will This Generator be Able to be Powered by Co-Fired Fuel Oil and Natural Gas?**, indicate if the combustion system that powers the generator will be able to co-fire fuel oil with natural gas. If it cannot, skip to line 20.
- 20. For line 19, **Will This Generator be able to Run on 100% Oil?**, indicate whether or not the combustion system that will power the generator can run on 100 percent oil. If "Yes," skip to line 20, if "No," indicate the maximum percentage of the heat input to the combustion system (percent of MMBtu) that will be able to be supplied by oil when co-firing with natural gas. Also provide the maximum output (summer net MW) that the unit is expected to achieve, taking into account all applicable legal, regulatory, and technical limits, when making the maximum use of oil and co-firing natural gas.
- 21. For line 20, **Will This Unit be Able to Fuel Switch?**, indicate whether or not the combustion system that will power the generator will have the equipment necessary to fuel switch and have the regulatory permits to fuel switch. If "No," then skip to SCHEDULE 4. OWNERSHIP OF GENERATORS OWNED JOINTLY OR BY OTHERS.

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- 22. For line 21, **Will This Unit be Able to Switch Between Oil and Natural Gas?**, indicate whether or not the combustion system that will power the generator will have the necessary equipment and the regulatory permits in place to switch between oil and natural gas. If "No," skip to line 23. If "Yes," indicate whether the unit will be able to switch fuels while operating (i.e., without shutting down the unit). Also enter the maximum output (summer net MW) that the unit is expected to achieve, taking into account all applicable legal, regulatory, and technical limits, when running on natural gas, the maximum output (summer net MW) that the unit is expected to achieve, taking into account all applicable legal, regulatory, and technical limits, when running on oil, and how long it is expected to take to switch the generator from using 100 percent natural gas to 100 percent oil.
- 23. For line 22, Limits Are There Factors That Will Limit the Unit's Ability to Switch From Natural Gas to Oil?, indicate whether or not there will be factors that will limit the operation of the generator (e.g., limits on maximum output, limits on annual operating hours), when running on 100 percent oil. Check all factors that will limit the ability of this generator to switch from natural gas to oil.
- 24. For line 23, **Fuel Switching Options**, enter the codes for up to six fuels, including (if applicable) oil and natural gas, that can be used as a sole source of fuel to power each generator. Select appropriate energy source codes from Table 1 in these instructions. Note: fuel options listed for fuel switching must also be included under either "Predominant Energy Source" (line 10), "Second Most Predominant Energy Source" (line 12), or "Other Energy Sources (line 13).

SCHEDULE 4. OWNERSHIP OF GENERATORS OWNED JOINTLY OR BY OTHERS

- Complete a separate SCHEDULE 4 for each existing and planned generator operated by the
 respondent that is, or will be, jointly owned; and each generator that the respondent operates
 but is 100 percent owned by another entity. Only the current or planned operator of jointlyowned generators should complete this schedule. The total percentage of ownership must equal
 100 percent.
- 2. For each generator, specify the **Plant Name**, **EIA Plant Code**, and **Generator Identification**, as listed on SCHEDULE 3, PART A. GENERATOR INFORMATION GENERATORS.
- 3. Enter the **Owner/Joint Owner Name and Address**, in order of percentage of ownership, of each generator. Enter the **EIA Code** for the owner, if known, otherwise leave blank. Enter the **Percent Owned** to two decimal places, i.e., 12.5 percent as "12.50." If a generator is 100 percent owned by an entity other than the operator, then enter the percentage ownership as "100.00."
- 4. Include any notes or comments in SCHEDULE 7. COMMENTS.

SCHEDULE 5. NEW GENERATOR INTERCONNECTION INFORMATION

- 1. Complete a separate SCHEDULE 5 for each generator that started commercial operation during the data year (calendar year for which this survey is being filed). For example, if Reporting is as of December 31, 2007, then data year is 2007.
- 2. For line 1, enter the **Name of the Power Plant** and the **EIA Power Plant Code**, as previously reported in SCHEDULE 3, PART A, GENERATOR INFORMATION GENERATORS.
- 3. For line 2, enter the **Generator ID**, as previously reported in SCHEDULE 3, PART A, GENERATOR INFORMATION GENERATORS.
- 4. For line 3, **Date of Actual Generator Interconnection**, report the month and year that the interconnection was put into place.
- 5. For line 4, **Date of Initial Interconnection Request**, report the month and year that the first request for interconnection was filed with the grid operator.
- 6. For line 5, Interconnection Site Location, specify the nearest city or town, and the state, where

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the interconnection equipment is located.

- 7. For line 6, **Grid Voltage at the Point of Interconnection**, specify the grid voltage, in kV, at the point of interconnection between the generator and the grid.
- 8. For line 7, **Owner of the Transmission or Distribution Facilities to Which Generator is Interconnected,** provide the name of the owner of the transmission or distribution facilities to which the generator is interconnected. If the name of the owner of the facilities is unknown, provide the name of the contracting party.
- 9. For line 8, **Total Cost Incurred for the Direct, Physical Interconnection**, specify the total cost incurred, in thousands of dollars, to accomplish the physical interconnection.
- 10. For line 9, **Equipment Included in the Direct Interconnection Cost**, check each of the types of equipment that are included in the cost amount reported on line 8. If there are significant types of equipment that are not included in the list, please specify what additional equipment was needed for the interconnection in SCHEDULE 7. COMMENTS.
- 11. For line 10, (a) Total Cost for Other Grid Enhancements/Reinforcements Needed to Accommodate Power Deliveries From the Generator, specify the amount incurred, in thousands of dollars, for any other grid enhancements or reinforcements that were needed to accommodate power deliveries from the new generator. If these costs, or some portion of these costs, will be repaid to your company at some time in the future by the owner of the grid, or by the party with whom you contracted for the interconnection, please check "Yes" in line 10b; otherwise, check "No" in 10b.
- 12. For line 11, Were Specific Transmission Use Rights Secured As A Result Of The Interconnection Costs Incurred, check "Yes" or "No."

SCHEDULE 6. BOILER INFORMATION

This schedule is required to be completed for all existing and planned (10 year plans) combustible-fueled steam generators, including heat recovery steam generators with duct firing and combustible renewable-fueled generators, with a total generator nameplate capacity of at least 10 megawatts.

PART B, PART C, PART F, and PART I are only to be completed by those generators that meet the conditions above but that have a total generator nameplate capacity of at least 100 megawatts.

Nuclear plants and solar plants using a steam cycle should complete PART F only.

SCHEDULE 6, PART A. PLANT CONFIGURATION

- 1. Identification information should be a code commonly used by plant management for that equipment (e.g., "2," "A101," "7B," etc.). Select a code for each piece of equipment and use it for that equipment throughout this form. The code should be a maximum of six characters long and should conform to codes reported for the same equipment (especially generators) on other EIA forms. Do not use blanks in the code. Do not enter "NA" for those lines that are not applicable. Plants less than 100 MW should only complete lines 1, 2, 3, and if applicable, 5 and 6. Planned equipment that is on order and expected to go into commercial service within 10 years must be reported. If two or more pieces of equipment (e.g., two generators) are associated with a single boiler, report each identification code, separated by commas, under the appropriate boiler. Do not change preprinted equipment identification.
- 2. For line 1, using each boiler as a starting point, complete the entire column under the boiler identification with the requested information on each piece of associated existing or planned equipment (e.g., generators, cooling systems, etc.). Report waste-heat boilers with auxiliary firing. Do not report waste-heat boilers without auxiliary firing, or auxiliary house or start-up boilers. A waste-heat boiler is a boiler that receives all or a substantial portion of its energy input from the noncombustible exhaust gases of a separate fuel-burning process. Combined cycle units with auxiliary firing report the heat recovery steam generators (HRSGs) on line1.

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- 3. For lines 2, 4, 5, 6, 7, and 8, if a piece of equipment (e.g., a generator or a cooling system) serves two or more boilers, repeat the identification information for that equipment under each appropriate boiler.
- 4. For line 2, **Associated Generator(s) ID**, do not report auxiliary generators. Multiple generators operated as a single unit (e.g., cross compound and topping generators) should be identified as a group with one identification code. Combined cycle units with auxiliary firing report only the steam generators. Do not report the combustion turbine portion of the combined cycle unit.
- 5. For line 3, **Generator Associations with Boiler as Actual or Theoretical,** indicate "A" for actual association during year or "T" for theoretical associations.
- 6. For line 4, **Associated Cooling System(s) ID**, a cooling system is an equipment system that provides water to the condensers and includes water intakes and outlets, cooling towers and ponds, pumps, and pipes. Identify a single plant cooling system, not separate systems, unless systems are physically separated, e.g., have separate water intake and outlet structures, where each system can be operated independently.
- 7. For line 5, **Associated Flue Gas Particulate Collector(s) ID**, if a combination particulate collector is associated with a single boiler, identify the collectors as a single group. If the particulate collector also removes sulfur dioxide, identify the unit in lines 5 and 6 using the same identification code.
- 8. For line 6, **Associated Flue Gas Desulfurization Units(s) ID**, for reporting purposes identify an associated flue gas desulfurization unit to include all the trains (or modules) associated with a single boiler. If the flue gas desulfurization unit also removes particulate matter, identify the unit in lines 5 and 6 using the same identification code.
- 9. For line 7, **Associated Flue(s) ID**, a flue is defined as an enclosed passageway within a stack for directing products of combustion to the atmosphere. For stacks with multiple flues, report in one column all flues that serve the boiler identified in line 1. Separate multiple entries with commas. If the stack has a single flue, use the stack identification for the flue identification.
- 10. For line 8, **Associated Stack(s) ID**, a stack is defined as a tall, vertical structure containing one or more flues used to discharge products of combustion into the atmosphere.

SCHEDULE 6, PART B. BOILER INFORMATION – AIR EMISSION STANDARDS (DATA NOT REQUIRED FOR PLANTS LESS THAN 100 MW)

- Complete a separate page for each existing or planned boiler as reported on SCHEDULE 6, PART A, line 1.
- 2. For line 2a, **Type of Boiler Standards Under Which the Boiler Is Operating,** indicate the standards as described in the U.S. Environmental Protection Agency regulation under 40 CFR. Select from the following codes of the New Source Performance Standards (NSPS):

D	Standards of Performance for fossil-fuel fired steam boilers for which
	construction began after August 17, 1971.
Da	Standards of Performance for fossil-fuel fired steam boilers for which
	construction began after September 18, 1978.
Db	Standards of Performance for fossil-fuel fired steam boilers for which
	construction began after June 19, 1984.
Dc	Standards of Performance for small industrial-commercial-institutional steam
	generating units.
N	Not covered under New Source Performance Standards.

- 3. For line 2b, **Is Boiler Operating Under a New Source Review (NSR) Permit?**, check "Yes" or "No"; if "Yes," enter date and identification number of the issued permit.
- 4. For line 3, **Type of Statute or Regulation**, select from the following the most stringent type of statute or regulation code:

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FD Federal ST State LO Local

NA No Applicable Standard

- 5. For line 4, **Emission Standard Specified**, refer to the numeric value for the unit of measurement in line 5. If no numeric value is specified, report "NA." For Sulfur Dioxide (column (b)), if the standard requires both an emission rate and a percent scrubbed, report the emission rate in terms of pounds of sulfur dioxide per million Btu on line 4a and report the percent scrubbed in terms of percent sulfur removal efficiency (by weight) on line 4b.
- 6. For line 5, **Unit of Measurement Specified**, column (a), Particulate Matter, select from the following unit of measurement codes (PB* is the preferred measurement):

Code	Unit of Measurement
OP	Percent of opacity
PB*	Pounds of Particulate matter per million Btu in fuel
PC	Grains of particulate matter per standard cubic foot of stack gas
PG	Pounds of particulate matter per thousand pounds of stack gas
PH	Pounds of particulate matter emitted per hour
UG	Micrograms of particulate matter per cubic meter
OT	Other (specify in SCHEDULE 7. COMMENTS)

7. For line 5, **Unit of Measurement Specified**, column (b), Sulfur Dioxide, select from the following unit of measurement codes (DP* is the preferred measurement):

Code	Unit of Measurement
DC	Ambient air quality concentration of sulfur dioxide (parts per million)
DH	Pounds of sulfur dioxide emitted per hour
DL	Annual sulfur dioxide emission level less than a level in a previous
	year
DM	Parts per million of sulfur dioxide in stack gas
DP*	Pounds of sulfur dioxide per million Btu in fuel
SB	Pounds of sulfur per million Btu in fuel
SR	Percent sulfur removal efficiency (by weight)
SU	Percent sulfur content of fuel (by weight)
OT	Other (specify in SCHEDULE 7. COMMENTS)

8. For line 5, **Unit of Measurement Specified**, column (c), Nitrogen Oxides, select from the following unit of measurement codes (NP* is the preferred measurement):

Code	Unit of Measurement
NH	Pounds of nitrogen oxides emitted per hour
NL	Annual nitrogen oxides emission level less than a level in a previous
	year
NM	Parts per million of nitrogen oxides in stack gas
NO	Ambient air quality concentration of nitrogen oxides (parts per
	million)
NP*	Pounds of nitrogen oxides per million Btu in fuel
OT	Other (specify in SCHEDULE 7. COMMENTS)

9. For line 6, **Time Period Specified**, select from the following codes to indicate the period over which measurements were averaged:

Co	ode	Time Period
N	1/	Never to exceed
F	M	5 minutes

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SM	6 minutes
FT	15 minutes
ОН	1 hour
WO	2 hours
TH	3 hours
EH	8 hours
DA	24 hours
WA	1 week
MO	30 days
ND	90 days
YR	Annual
PS	Periodic stack testing
DT	Defined by testing
NS	Not specified
OT	Other (specify in SCHEDULE 7. COMMENTS)

- 10. For line 7, Year Boiler Was or Is Expected to Be in Compliance With Federal, State and/or Local Regulations, if the boiler is currently in compliance, enter the year the boiler came into compliance or the year of the regulation, whichever came last. Report "9999" only if a revision of a governing regulation is being sought or no plans have been approved to bring the boiler into compliance.
- 11. For line 8, **If Not in Compliance**, **Strategy for Compliance**, select from the following strategy for compliance codes (separate multiple entries (up to three) with commas):

Code	Strategy for Compliance
ВО	Burner out of service
FR	Flue gas recirculation
LA	Low excess air
LN	Low nitrogen oxide burner
MS	Currently meeting standard
NC	No plans to control
OV	Overfire air
SE	Seeking revision of governing regulation
OT	Other (specify in SCHEDULE 7. COMMENTS)

12. For line 9, Existing, and line 10, Planned Strategies to Meet the Sulfur Dioxide and Nitrogen Oxides Requirements of Title IV of the Clean Air Act Amendment of 1990, column (b), select from the following strategy for compliance codes (separate multiple entries (up to three) with commas):

Code	Strategy for Compliance (Sulfur Dioxide)
CF	Fluidized Bed Combustor
CU	Control unit under Phase I extension plan
IF	Install flue gas desulfurization unit (other than Phase I extension plan)
NC	No change in historic operation of unit anticipated
ND	Not determined at this time
RP	Repower Unit
SS	Switch to lower sulfur fuel
SU	Designate Phase II unit(s) as substitution unit(s)
TU	Transfer unit under Phase I extension plan
UC	Decrease utilization - designate Phase II unit(s) as compensating unit(s)
UE	Decrease utilization - rely on energy conservation and/or improved
	efficiency
US	Decrease utilization - designate sulfur-free generators to compensate
UP	Decrease utilization - purchase power

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WA	Allocated allowances and purchase allowances
OT	Other (specify in SCHEDULE 7. COMMENTS)

Code	Strategy for Compliance (Nitrogen Oxides)
AA	Advanced Overfire Air
BF	Biased Firing (alternative burners)
CF	Fluidized Bed Combustor
FR	Flue Gas Recirculation
FU	Fuel Reburning
H2O	Water Injection
LA	Low Excess Air
LN	Low NOx Burner
NH3	Ammonia Injection
NC	No change in historic operation of unit anticipated
ND	Not determined at this time
OV	Overfire Air
RP	Repower Unit
SC	Slagging
SN	Selective Noncatalytic Reduction
SR	Selective Catalytic Reduction
STM	Steam Injection
UE	Decrease utilization - rely on energy conservation and/or improved
	efficiency
NA	Not Applicable
OT	Other (specify in SCHEDULE 7. COMMENTS)

SCHEDULE 6, PART C. BOILER INFORMATION – DESIGN PARAMETERS (DATA NOT REQUIRED FOR PLANTS LESS THAN 100 MW)

- 1. Complete for each existing or planned boiler as reported on SCHEDULE 6, PART A, line 1. If a procurement contract has been signed for an upgrade or retrofit of a boiler: 1) complete a separate page for the existing boiler; 2) explain In SCHEDULE 7. COMMENTS how long the existing equipment will be out of service; and 3) using the same boiler identification, complete a separate SCHEDULE 6, PART C for the planned upgrade or retrofit.
- 2. For line 2, enter boiler status. Select from the following codes.

Code	Boiler Status
CN	Cancelled (previously reported as "planned")
CO	New unit under construction
OP	Operating (in commercial service or out of service less than 365 days)
OS	Out of service (365 days or longer)
PL	Planned (expected to go into commercial service within 10 years)
RE	Retired (no longer in service and not expected to be returned to service)
SB	Standby (or inactive reserve); i.e., not normally used, but available for service
SC	Cold Standby (Reserve); deactivated (usually requires 3 to 6 months to reactivate)
TS	Operating under test conditions (not in commercial service)

- 3. For line 3, **Boiler Actual or Projected In-service Date**, and line 4, **Boiler Actual or Projected Retirement Date**, the month-year date should be entered as follows: August 1959 as 08-1959. If the month is unknown, use the month of June.
- 4. For line 5, **Boiler Manufacturer**, select one code from the following boiler manufacturers' codes:

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Code	Boiler Manufacturer
Al	Aalborg Industries
AL	Alstrom
AS	American Shack
AT	Applied Thermal Systems
BR	BROS
BW	Babcock and Wilcox
DJ	De Jong Coen by
CE	Combustion Engineering
CN	Coen
DL	Deltak
DS	Doosan
EC	Econotherm
ER	Erie City Iron Works
ET	Entek
FW	Foster Wheeler
GE	General Electric
GT	Gotaverken
HT	Hitachi
ID	Indeck
IH	In House Design
IHI	Ishikawajima-Harima Heavy Industries
IS	Innovative Steam Technology
KL	Keeler Dorr Oliver
KP	Kvaerner Pulping
KW	Kawasaki Heavy Industries
ME	Mitchell Engineering
NB	Nebraska Boiler
NM	NEM
NT	Nooter/Erickson
PB	Peabody
PR	Pyro Power
RS	Riley Stoker
ST	Sterling
TM	Tampell
TS	Toshiba
VO	Vogt Machine Company/Vogt Power
WE	Westinghouse
WG	Wiegl Engineering
WI	Wickes
ZN	Zurn
OT	Other (specify in SCHEDULE 7. COMMENTS)

5. For line 6, **Type of Firing Used with Primary Fuels**, select from the following firing codes (separate multiple entries (up to three) with commas):

Firing Code	Firing Type Description
AF	Arch Firing
CB	Cell Burner
CF	Concentric Firing
CY	Cyclone Firing
DB	Duct Burner
FB	Fluidized Bed Firing
FF	Front Firing

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OF	Opposed Firing
RF	Rear Firing
SF	Side Firing
SS	Spreader Stoker
TF	Tangential Firing
VF	Vertical Firing
OT	Other (specify in SCHEDULE 7. COMMENTS)

- 6. For lines 8 through 11, enter firing rate data for primary fuels as entered in line 13. Do not enter firing rate for startup or flame stabilization fuels. For waste-heat boilers with auxiliary firing, enter the firing rate for auxiliary firing and complete line 12 for waste heat.
- 7. For line 12, a waste-heat boiler is a boiler that receives all or a substantial portion of its energy input from the noncombustible exhaust gases of a separate fuel-burning process.
- 8. For line 13, **Primary Fuels Used**, see table of energy source (fuel) codes. Show design firing rates for each fuel in the associated lines 8, 9, 10, and 11. Do not include startup fuels. Predominance is based on Btu.
- 9. For line 16, **Total Air Flow**, report at standard temperature and pressure, i.e., 68 degrees Fahrenheit and one atmosphere pressure.
- 10. For line 17, Wet or Dry Bottom, enter "W" for Wet or "D" for Dry. Wet Bottom is defined as slag tanks that are installed at furnace throat to contain and remove molten ash from the furnace. Dry Bottom is defined as having no slag tanks at furnace throat area; throat area is clear; bottom ash drops through throat to bottom ash water hoppers. This design is used where the ash melting temperature is greater than the temperature on the furnace wall, allowing for relatively dry furnace wall conditions.

SCHEDULE 6, PART D. BOILER INFORMATION – NITROGEN OXIDE EMISSION CONTROLS

- 1. Complete a separate page for each existing or planned boiler.
- 2. For line 2, Nitrogen Oxide Control Status, select from the following status codes:

Code	Control Status
CN	Cancelled (previously reported as "planned")
CO	New unit under construction
OP	Operating (in commercial service or out of service less than 365 days)
OS	Out of service (365 days or longer)
OZ	Operated during the ozone season (May through September)
PL	Planned (expected to go into commercial service within 10 years)
RE	Retired (no longer in service and not expected to be returned to service)
SB	Standby (or inactive reserve); i.e., not normally used, but available for service
SC	Cold Standby (Reserve); deactivated (usually requires 3 to 6 months to
	reactivate)
TS	Operating under test conditions (not in commercial service)

3. For line 3, **Low Nitrogen Oxide Control Process**, select from the following low nitrogen oxide control processes (separate multiple entries (up to three) with commas):

Code	Control Process
AA	Advanced Overfire Air
BF	Biased Firing (alternative burners)
CF	Fluidized Bed Combustor
FR	Flue Gas Recirculation
FU	Fuel Reburning
H2O	Water Injection
LA	Low Excess Air
LN	Low NOx Burner

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NA	Not Applicable
NH3	Ammonia Injection
OV	Overfire Air
SC	Slagging
SN	Selective Noncatalytic Reduction
SR	Selective Catalytic Reduction
STM	Steam Injection
NC	No change in historic operation of unit anticipated
RP	Repower Unit
UE	Decrease utilization - rely on energy conservation and/or improved
	efficiency
OT	Other (specify in SCHEDULE 7. COMMENTS)

4. For line 4, **Manufacturer of Low Nitrogen Oxide Control Burners**, select from the following low nitrogen oxide control burner manufacturers:

Code	Manufacturer
AB ABB	Advanced Burner Technologies
	Advanced Combustion Technology
AC	Advanced Combustion Technology
AL	Alstom AirPol
AP	1
AT	Applied Thermal Systems
AU	Applied Utility Systems (AUS)
AZ	Alzeta
BC	Babcock Borsig Power
BM	Bloom
BMD	Burns & McDonnell
BW	Babcock and Wilcox
CE	Combustion Engineering
CM	Combustion Components Associates Inc
CN	Coen
CSI	Combustion Solutions Inc
CT	Callidus Technologies
DB	Deutsche-Babcock
DD	Damper Design Inc
DQ	Duquesne Light Company & Energy Systems Associates
DV	Davis
DX	Deltex
EA	Eagle Air
EG	Energy and Environmental Research Corp (EER)
EL	Electric Power Technologies
EP	EPRI
ET	Entek
ETE	Entropy Technology and Environmental Construction Corp (ETEC)
FB	Faber
FN	Forney
FT	Fuel Tech Inc
FW	Foster Wheeler
GE	General Electric
GR	GE Energy and Environmental Research Corp (GEEER)
HL	Holman
HT	Hitachi
IC	International Combustion Limited
ID	Indeck

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ΙΗ	In House Design
JZ	John Zink Todd Combustion/Todd Combustion
KL	Keeler Dorr Oliver
MB	Mitsui-Babcock
MI	Mitsubishi Industries
MT	Mobotec
NA	Not Applicable
NB	Nebraska Boiler
NC	Natcom, Inc
NE	NEI
NL	Noell, Inc
PA	Procedair
PB	Peabody
PS	Peerless Manufacturing Company
PL	Pillard
PX	Phoenix Combustion
RD	Rodenhuis and Verloop
RI	Riley
RJ	RJM
RR	Rolls Royce
RS	Riley Stoker/Riley Power
RV	RV Industries
SC	Southern Company
SW	Siemans-Westinghouse
TC	Todd Combustion
TEC	Thermal Equipment Corporation
TM	Tampella
TS	Toshiba
WG	Weigel Engineering
ZC	Zeeco
OT	Other (specify in SCHEDULE 7. COMMENTS)

SCHEDULE 6, PART E. BOILER INFORMATION – MERCURY EMISSION CONTROLS

1. For line 2, if "Yes" is checked on line 1, select up to three mercury emissions controls codes from the following list:

Code	Mercury Emission Control
ACI	Activated Carbon Injection System
BS	Baghouse, shake and deflate
BP	Baghouse, pulse
BR	Baghouse, reverse air
DS	Dry Scrubber
EC	Electrostatic precipitator, cold side, with flue gas conditioning
EH	Electrostatic precipitator, hot side, with flue gas conditioning
EK	Electrostatic precipitator, cold side, without flue gas conditioning
EW	Electrostatic precipitator, hot side, without flue gas conditioning
FGD	Flue Gas Desulfurization
LIJ	Lime Injection
WS	Wet Scrubber
OT	Other (specify in SCHEDULE 7. COMMENTS)

SCHEDULE 6, PART F. COOLING SYSTEM INFORMATION – DESIGN PARAMETERS (DATA NOT REQUIRED FOR PLANTS LESS THAN 100 MW)

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If a procurement contract has been signed for an upgrade or retrofit of a cooling system: 1) complete a separate page for the existing cooling system; 2) specify in SCHEDULE 7.
 COMMENTS how long the existing equipment will be out of service; and 3) using the same cooling system identification, complete a separate SCHEDULE 6, PART F. COOLING SYSTEM INFORMATION - DESIGN PARAMETERS for the planned upgrade or retrofit.

2. For line 2, Cooling System Status, select from the following equipment status codes:

Code	System Status
CN	Cancelled (previously reported as "planned")
CO	New unit under construction
OP	Operating (in commercial service or out of service less than 365 days)
OS	Out of service (365 days or longer)
PL	Planned (expected to go into commercial service within 10 years)
RE	Retired (no longer in service and not expected to be returned to service)
SB	Standby (or inactive reserve); i.e., not normally used, but available for service)
SC	Cold Standby (Reserve); deactivated (usually requires 3 to 6 months to reactivate)
TS	Operating under test conditions (not in commercial service)

3. For line 4a, **Type of Cooling System**, select from the following cooling system codes (separate multiple entries (up to four) with commas):

Code	Cooling System Description
DC	Dry (air) cooling system
HRC	Hybrid: recirculating cooling pond(s) or canal(s) with dry cooling
HRF	Hybrid: recirculating with forced draft cooling tower(s) with dry cooling
HRI	Hybrid: recirculating with induced draft cooling tower(s) with dry cooling
OC	Once through with cooling pond(s) or canal(s)
OF	Once through, fresh water
OS	Once through, saline water
RC	Recirculating with cooling pond(s) or canal(s)
RF	Recirculating with forced draft cooling tower(s)
RI	Recirculating with induced draft cooling tower(s)
RN	Recirculating with natural draft cooling tower(s)
OT	Other (specify in SCHEDULE 7. COMMENTS)

- 4. For line 4b, in the case of a hybrid cooling system, indicate the percent of total cooling load that is served by any dry cooling components.
- 5. For line 5a, **Source of Cooling Water**, provide name of river, lake, etc. For line 5b, select the **Type of Cooling Water Source** from the following codes:

Code	Type of Water Source
SW	Surface Water (ex: river, canal, bay)
GW	Ground Water (ex: aquifer, well)
PD	Plant Discharge Water (ex: wastewater treatment plant discharge)
OT	Other (specify in SCHEDULE 7. COMMENTS)

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For line 5c, Type of Cooling Water, select the Type of Cooling Water from the following codes:

Code	Type of Water
BR	Brackish water
FR	Fresh water
TW	Treated wastewater effluent
SA	Saline water
OT	Other (specify in SCHEDULE 7. COMMENTS)

- 7. For line 6, **Design Cooling Water Flow Rate at 100 percent Load at Intake**, if more than one source of cooling water is used by a cooling system, enter other sources in a footnote in SCHEDULE 7. COMMENTS. If water is purchased, report "municipal." If water is taken from wells, report "wells." If source of water is "municipal" or "wells," do not complete lines 19, 20, 21, and 22 and provide the total amount of water used at 100 percent load in line 6.
- 8. For lines 8, 9, and 10, a cooling pond is a natural or man-made body of water that is used for dissipating waste heat from power plants.
- 9. For line 12, **Type of Towers**, select from the following cooling tower codes (separate multiple entries (up to two) with commas):

Code	Type of Towers
MD	Mechanical draft, dry process
MW	Mechanical draft, wet process
ND	Natural draft, dry process
NW	Natural draft, wet process
WD	Combination wet and dry processes
OT	Other (specify in SCHEDULE 7. COMMENTS)

- 10. For lines 15, 16, 17, and 18, enter the actual installed cost for the existing system or the anticipated cost to bring a planned system into commercial operation. Installed cost should include the cost of all major modifications. A major modification is any physical change which results in a change in the amount of air or water pollutants or which results in a different pollutant being emitted.
- 11. For line 15, **Total System**, the cost should include amounts for items such as pumps, piping, canals, ducts, intake and outlet structures, dams and dikes, reservoirs, cooling towers, and appurtenant equipment. The cost of condensers should not be included.
- 12. For lines 19 through 22, if the cooling system is a zero discharge type (RC, RF, RI, RN), do not complete column (b). The intake and the outlet are the points where the cooling system meets the source of cooling water found on line 5. For all longitude and latitude coordinates, provide degrees, minutes, and seconds.
- 13. For line 23, Enter Datum for the above Latitude and Longitude, if Known; Otherwise Enter "UNK": The longitude and latitude measurement for a location depends in part on the coordinate system (or "datum") the measurement is keyed to. "Datum systems" used in the United States include the North American Datum 1927 (NAD27), North American Datum 1983 (NAD83) and World Geodetic Survey 1984 (WGS84).

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SCHEDULE 6, PART G. FLUE GAS PARTICULATE COLLECTOR INFORMATION

 For line 3, Flue Gas Particulate Collector Status, select from the following equipment status codes:

Code	Status
CN	Cancelled (previously reported as "planned")
CO	New unit under construction
OP	Operating (in commercial service or out of service within 365 days)
OS	Out of service (365 days or longer)
PL	Planned (expected to go into commercial service within 10 years)
RE	Retired (no longer in service and not expected to be returned to service)
SB	Standby (or inactive reserve, i.e., not normally used, but available for
	service)
SC	Cold Standby (Reserve); deactivated. Usually requires 3 to 6 months to
	reactivate
TS	Operating under test conditions (not in commercial service).

2. For line 4, **Type of Flue Gas Particulate Collector**, select from the following flue gas particulate collector codes (for combination units, separate multiple entries (up to three) with commas):

Code	Description
BS	Baghouse, shake and deflate
BP	Baghouse, pulse
BR	Baghouse, reverse air
EC	Electrostatic precipitator, cold side, with flue gas conditioning
EH	Electrostatic precipitator, hot side, with flue gas conditioning
EK	Electrostatic precipitator, cold side, without flue gas conditioning
EW	Electrostatic precipitator, hot side, without flue gas conditioning
MC	Multiple Cyclone
SC	Single Cyclone
WS	Wet Scrubber
OT	Other (specify in SCHEDULE 7. COMMENTS).

- 3. For line 5, Installed Cost of Flue Gas Particulate Collector Excluding Land, enter the actual installed cost for the existing system or the anticipated cost to bring a planned system into commercial operation. Installed cost should include the cost of all major modifications. A major modification is any physical change which results in a change in the amount of air or water pollutants or which results in a different pollutant being emitted.
- 4. For lines 6, 7, 8 and 9 enter value for fuel. Enter range of values, if applicable.

SCHEDULE 6, PART H. FLUE GAS DESULFURIZATION UNIT INFORMATION – DESIGN PARAMETERS

If a procurement contract has been signed for an upgrade or retrofit of a Flue Gas
Desulfurization Unit: 1) complete a separate page for the existing unit; 2) specify in SCHEDULE
7. COMMENTS, how long the existing equipment will be out of service; and 3) using the same
FGD identification, complete a separate SCHEDULE 6, PART H. FLUE GAS
DESULFURIZATION UNIT - DESIGN PARAMETERS for the planned upgrade or retrofit.

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2. For line 2, Flue Gas Desulfurization Unit Status, select from the following equipment status codes:

Code	Status
CN	Cancelled (previously reported as planned)
CO	New unit under construction
OP	Operating (in commercial service or out of service less than 365 days)
OS	Out of service (365 days or longer)
PL	Planned (expected to go into commercial service within 10 years)
RE	Retired (no longer in service and not expected to be returned to service)
SB	Standby (or inactive reserve, i.e., not normally used by available for service)
SC	Cold Standby (Reserve); deactivated. Usually requires 3 to 6 months to activate
TS	Operating under test conditions (not in commercial service)

- 3. If the code selected is "OP" complete lines 4 through 14, otherwise do not complete these lines.
- 4. For line 4, **Type of Flue Gas Desulfurization Unit**, select from the following FGD unit codes (for combination units, separate multiple entries (up to four) with commas):

Code	Type of Unit
BR	Jet Bubbling Reactor
CD	Circulating Dry Scrubber
DP	Dry Powder Injection type
MA	Mechanically aided type
PA	Packed type
SD	Spray dryer type
SP	Spray type
TR	Tray type
VE	Venture type
OT	Other (specify in SCHEDULE 7. COMMENTS)

5. For line 5, **Type of Sorbent**, select from the following sorbent codes (separate multiple entries (up to four) with commas):

Code	Type of Sorbent
AF	Alkaline fly ash
CC	Calcium carbide slurry
CEF	CE filtrate
CSH	Caustic Sodium hydroxide
DB	Dibasic acid
DL	Dolomitic limestone
LA	Lime and alkaline fly ash
LF	Limestone and alkaline fly ash
LI	Lime
LS	Limestone
MO	Magnesium oxide
SA	Soda ash
SB	Sodium bicarbonate
SC	Sodium carbonate
SF	Sodium formate
SL	Soda liquid
SS	Sodium sulfite
TW	Treated wastewater
WT	Water
OT	Other (specify in SCHEDULE 7. COMMENTS)

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For line 7, **Flue Gas Desulfurization Unit Manufacturer**, select one code from the following flue gas desulfurization unit manufacturer codes:

Code	Manufacturer			
AA	Advanced Air Technologies			
ABB	ABB Environmental Systems			
AL	Alstom			
AM	American Air Filter			
AP	Airpol			
API	Air Pollution Industries			
AX	Amerex Industries			
BE	Bact Engineering			
BI	Bleco Industries			
BL	Bechtel Corporation			
BMD	Burns and McDonnell			
BO	Bionomics			
BPC	Belco Pollution Control			
BPE	Babcock Power Environmental Inc (BPEI)			
BT	Belco Technologies			
BW	Babcock and Wilcox			
CA	Chiyoda			
CC	Chemico			
CE	Combustion Engineering			
CO	Combustion Engineering Combustion Equipment			
DA				
	Delta Conveying Systems			
DC	Ducon			
DM	Davey McKee			
EE	Environmental Engineering			
EEC	Environmental Elements Corporation			
El	Entoleter Inc			
FL	Flakt, Inc			
FM	FMC			
FW	Foster Wheeler			
GE	General Electric			
GF	Grafwolff			
HA	Hamon			
IH	In House Design			
JO	Joy Manufacturing			
KC	Korea Cottrell			
KE	M.W. Kellogg			
KR	Krebs Equipment			
LLB	Lurgi Lentjes Bischoff			
MC	Macrotek			
MG	McGill Air Clean			
MI	Mitsubishi Industry			
MT	Mobotec			
MX	Marselex			
NPA	Neptune Airpol			
NSP	NSP			
PA	Procedair			
PB	Peabody			
PR	Pyro Power			
PU	Pure Air			
RC	Research Cottrell			

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RS	Riley Stoker
SHU	Saarberg-Holter Umwelttechnick GmbH
SK	Schenck Weigh Feeders
TC	Turbosonic
TH	Thyssen/CEA
TK	Turbotak
TP	Tempala Power
UE	Utility Engineering
UM	United McGill
UO	Universal Oil Products
WAP	Wheelabrator Air Pollution Control
ZN	Zurn
OT	Other (specify in SCHEDULE 7. COMMENTS)

- 6. For line 15, **Removal Efficiency for Sulfur Dioxide**, report the removal efficiency as the percent by weight of gases removed from the flue gas.
- 7. For lines 20, 21, 22, and 23, enter the actual installed costs for the existing systems or the anticipated costs to bring a planned system into commercial operation. Installed cost should include the cost of all major modifications. A major modification is any physical change which results in a change in the amount of air or water pollutants or which results in a different pollutant being emitted. The total (line 23) will be the sum of lines 20, 21, and 22 which includes any other costs pertaining to the installation of the unit.

SCHEDULE 6, PART I. STACK AND FLUE INFORMATION – DESIGN PARAMETERS (DATA NOT REQUIRED FOR PLANTS LESS THAN 100 MW)

- 1. If a procurement contract has been signed for an upgrade or retrofit of a stack or flue: 1) complete a page for the existing stack or flue; 2) specify in SCHEDULE 7. COMMENTS, how long the existing structure will be out of service; and 3) using the same flue and stack identifications, complete a separate SCHEDULE 6, PART I for the planned upgrade or retrofit.
- 2. For line 1, **Flue ID**, and line 2, **Stack ID**, there must be an entry. If there is only one flue, also use the stack ID as the flue ID. Identification codes must be the same as reported on SCHEDULE 6, PART A. PLANT CONFIGURATION.
- 3. For line 3, **Stack (or Flue) Actual or Projected In-Service Date of Commercial Operation**, the month-year should be entered as follows: e.g., August 1959 as 08-1959.
- 4. For line 4, **Status of Stack**, select one from the following equipment status codes:

Status	Code
CN	Cancelled (previously reported as "planned")
CO	New unit under construction
OP	Operating (in commercial service or out of service within 365 days)
OS	Out of service (365 days or longer)
PL	Planned (on order or expected to go into commercial service within 10
	years)
RE	Retired (no longer in service and not expected to be returned to service)
SB	Standby (or inactive reserve, i.e., not normally used, but available for
	service)
SC	Cold Standby (Reserve); deactivated. Usually requires 3 to 6 months to
	reactivate
TS	Operating under test conditions (not in commercial service).

5. For lines 7 and 8, the rate should be approximately equal to the cross-sectional area multiplied by the velocity, multiplied by 60.

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- 6. For lines 13 and 14, seasonal average flue gas exit temperatures should be reported in degrees Fahrenheit, based on the arithmetic mean of measurements during operating hours. Summer season includes June, July, and August. Winter season includes January, February, and December.
- 7. For line 15, **Source**, enter "M" for measured or "E" for estimated.
- 8. For lines 16 and 17, **Stack Location**, enter the latitude and longitude in degrees, minutes, and seconds.
- 9. For line 18, Enter Datum for Latitude and Longitude, if Known; Otherwise Enter "UNK": The longitude and latitude measurement for a location depends in part on the coordinate system (or "datum") the measurement is keyed to. "Datum systems" used in the United States, include the North American Datum 1927 (NAD27), North American Datum 1983 (NAD83) and World Geodetic Survey 1984 (WGS84). If you do not know the datum system used, enter UNK.

SCHEDULE 7. COMMENTS

This schedule provides additional space for comments. Please identify schedule and line number and identifying information (e.g., plant code, boiler id, generator id) for each comment and use additional pages, if necessary.

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	Energy	Unit	Higher Heating t Value Range		
Fuel Type	Source	Label	MMBtu	MMBtu	- Energy Source Description
	Code		Lower	Upper	
			Fossil F		
	ANT	tons	22	28	Anthracite Coal
	BIT	tons	20	29	Bituminous Coal
	LIG	tons	10	14.5	Lignite Coal
	SUB	tons	15	20	Subbituminous Coal
Coal	WC	tons	6.5	16	Waste/Other Coal (including anthracite culm, bituminous gob, fine coal, lignite waste, waste coal)
	RC	tons	20	29	Refined Coal
	DFO	barrels	5.5	6.2	Distillate Fuel Oil (including diesel, No. 1, No. 2, and No. 4 fuel oils.
	JF	barrels	5	6	Jet Fuel
	KER	barrels	5.6	6.1	Kerosene
	PC	tons	24	30	Petroleum Coke
Petroleum Products	RFO	barrels	5.8	6.8	Residual Fuel Oil (including No. 5, and No. 6 fuel oils, and bunker C fuel oil)
	WO	barrels	3.0	5.8	Waste/Other Oil (including crude oil, liquid butane, liquid propane, oil waste, re-refined motor oil, sludge oil, tar oil, or other petroleum-based liquid wastes)
	BFG	Mcf	0.07	0.12	Blast Furnace Gas
	NG	Mcf	0.8	1.1	Natural Gas
Natural Gas and Other	OG	Mcf	0.32	3.3	Other Gas (specify in SCHEDULE 7. COMMENTS)
Gases	PG	Mcf	2.5	2.75	Gaseous Propane
	SG	Mcf	0.2	1.1	Synthetic Gas
	SGC	Mcf	0.2	0.3	Coal-Derived Synthetic Gas
			Renewable	Fuels	,
	AB	tons	7	18	Agricultural By-Products
	MSW	tons	9	12	Municipal Solid Waste
Solid Renewable	OBS	tons	8	25	Other Biomass Solids (specify in SCHEDULE 7. COMMENTS)
Fuels	WDS	tons	7	18	Wood/Wood Waste Solids (including paper pellets, railroad ties, utility poles, wood chips, bark, and wood waste solids)

Table 1. Energy Source Codes and Heat Content (continued)

Fuel Type	Energy	Unit	Higher Heating	Energy Source Description
ruei Type	Source	Label	Value Range	Ellergy Source Description

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	Code		MMBtu Lower	MMBtu Upper	
			Renewable		
	OBL	barrels	3.5	4	Other Biomass Liquids (specify in SCHEDULE 7. COMMENTS)
Liquid	SLW	tons	10	16	Sludge Waste
Renewable	BLQ	tons	10	14	Black Liquor
(Biomass) Fuels	WDL	barrels	8	14	Wood Waste Liquids excluding Black Liquor (including red liquor, sludge wood, spent sulfite liquor, and other wood- based liquids)
Casacus	LFG	Mcf	0.3	0.6	Landfill gas
Gaseous Renewable (Biomass) Fuels	OBG	Mcf	0.36	1.6	Other Biomass Gas (including digestor gas, methane, and other biomass gases; specify in SCHEDULE 7. COMMENTS)
	SUN	N/A	0	0	Solar
	WND	N/A	0	0	Wind
	GEO	N/A	0	0	Geothermal
All Other	WV	N/A	0	0	Water used in Wave Buoy Hydrokinetic Technology
Renewable Fuels	CUR	N/A	0	0	Water used in Current Hydrokinetic Technology
	TID	N/A	0	0	Water used in Tidal Hydrokinetic Technology
	WAT	N/A	0	0	Water at a Conventional Hydroelectric Turbine
			All Other	Fuels	
	WAT	MWh	0	0	Electric power (MWh) consumed by Pumped Storage Hydroelectric plants for pumping energy, Compressed Air Energy Storage for air compression, and energy stored into Battery Energy Storage
	NUC	N/A	0	0	Nuclear including Uranium, Plutonium, Thorium
All Other	PUR	N/A	0	0	Purchased Steam
Energy Sources	WH	N/A	0	0	Waste heat not directly attributed to a fuel source (WH should only be reported where the fuel source for the waste heat is undetermined, and for combined cycle steam turbines that do not have supplemental firing.)
	TDF	Tons	16	32	Tire-derived Fuels
	OTH	N/A	0	0	Specify in SCHEDULE 7. COMMENTS

Table 2. Commonly Used North American Industry Classification System (NAICS) Codes

U.S. Department of Energy U.S. Energy Information Administration Form EIA-860 (2011)	ANNUAL ELECTRIC GENERATOR REPORT INSTRUCTIONS	Form Approved OMB No. 1905-0129 Approval Expires: 12/31/2013 Burden: 9.4 hours	
Code	Description		
	AGRICULTURE, FORESTRY, AND FISHI	NG	
111	Agriculture production - crops		
112	Agriculture production, livestock and anima	al specialties	
113	Forestry		
114	Fishing, hunting, and trapping		
115	Agricultural services MINING		
211	Oil and gas extraction		
2121	Coal mining		
2122	Metal mining		
2123	Mining and quarrying of nonmetallic minera	als except fuels	
23	CONSTRUCTION	•	
	MANUFACTURING		
311	Food and kindred products		
3122	Tobacco products		
314	Textile and mill products		
315	Apparel and other finished products made	from fabrics and similar materials	
316	Leather and leather products		
321	Lumber and wood products, except furniture	re	
322	Paper and allied products (other than 3221	22 or 32213)	
322122	Paper mills, except building paper		
32213	Paperboard mills		
323	Printing and publishing		
324	Petroleum refining and related industries (d	other than 32411)	
32411	Petroleum refining		
325	Chemicals and allied products (other than	325188, 325211, 32512, or 325311	
32512	Industrial organic chemicals		
325188	Industrial inorganic chemicals		
325211	Plastic materials and resins		
325311	Nitrogenous fertilizers		
326	Rubber and miscellaneous plastic products	S	
327	Stone, clay, glass, and concrete products (other than 32731)	
32731	Cement, hydraulic		
331	Primary metal industries (other than 33111	1 or 331312)	
331111	Blast furnaces and steel mills		
224242	Drives and all mains are		

Miscellaneous manufacturing industries

optical goods, watches and clocks

Transportation equipment

Furniture and fixtures

Fabricated metal products, except machinery and transportation equipment Industrial and commercial equipment and components except computer

Measuring, analyzing, and controlling instruments, photographic, medical, and

Electronic and other electrical equipment and components except computer

Primary aluminum

equipment

equipment

331312

332

333

3345

335

336

337

339

U.S. Department of Energy		
U.S. Energy Information Administration		
Form EIA-860 (2011)		

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OMB No. 1905-0129
Approval Expires: 12/31/2013
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482 Railroad transportation 485 Local and suburban transit and interurban highway passenger transport 484 Motor freight transportation and warehousing 22 Electric, gas, and sanitary services 2212 Natural gas transmission 2213 Water supply 22131 Irrigation systems 22132 Sewerage systems 481 Transportation by air 482 Railroad Transportation 483 Water transportation 484 Motor freight transportation and warehousing 485 Local and suburban transit and interurban highway passenger transport 486 Pipelines, except natural gas 487 Transportation services 513 Communications 562212 Refuse systems 421 to 422 WHOLESALE TRADE 421 to 422 WHOLESALE TRADE 421 to 454 RETAIL TRADE 521 to 533 FINANCE, INSURANCE, AND REAL ESTATE SERVICES 514 Business services 514 Business services 5141 Legal services 561 Engineering, accounting, research, management, and related services 622 Health services 624 Social services 624 Social services 625 Hotels 811 Miscellaneous repair services 813 Membership organizations 814 Private Households 92 PUBLIC ADMINISTRATION		TRANSPORTATION AND PUBLIC UTILITIES
485 Local and suburban transit and interurban highway passenger transport 484 Motor freight transportation and warehousing 22 Electric, gas, and sanitary services 2212 Natural gas transmission 2213 Water supply 22131 Irrigation systems 22132 Sewerage systems 481 Transportation by air 482 Railroad Transportation 483 Water transportation 484 Motor freight transportation and warehousing 485 Local and suburban transit and interurban highway passenger transport 486 Pipelines, except natural gas 487 Transportation services 513 Communications 562212 Refuse systems 421 to 422 WHOLESALE TRADE 441 to 454 RETAIL TRADE 521 to 533 FINANCE, INSURANCE, AND REAL ESTATE SERVICES 514 Business services 514 Business services 514 Business services 514 Engineering, accounting, research, management, and related services 621 Hotels 622 Health services 623 Social services 624 Social services 625 Museums, art galleries, and botanical and zoological gardens 631 Muscellaneous repair services 631 Miscellaneous repair services 631 Miscellaneous repair services 631 Miscellaneous repair services 631 Miscellaneous repair services 631 Membership organizations 631 Membership organizations 631 Membership organizations 632 Private Households	482	Railroad transportation
22 Electric, gas, and sanitary services 2212 Natural gas transmission 2213 Water supply 22131 Irrigation systems 22132 Sewerage systems 481 Transportation by air 482 Railroad Transportation 483 Water transportation 484 Motor freight transportation and warehousing 485 Local and suburban transit and interurban highway passenger transport 486 Pipelines, except natural gas 487 Transportation services 513 Communications 562212 Refuse systems 421 to 422 WHOLESALE TRADE 441 to 454 RETAIL TRADE 521 to 533 FINANCE, INSURANCE, AND REAL ESTATE SERVICES 514 Business services 514199 Miscellaneous services 5141 Legal services 561 Engineering, accounting, research, management, and related services 621 Health services 622 Health services 624 Social services 624 Social services 625 Hotels 636 Museums, art galleries, and botanical and zoological gardens 637 Amusement and recreation services 641 Miscellaneous repair services 651 Miscellaneous repair services 652 Hotels 653 Amusement and recreation services 654 Social services 655 Amusement and recreation services 656 Amusement and recreation services 657 Amusement and recreation services 658 Amusement and recreation services 659 Amusement and recreation services 660 Amusement and recreation services 670 Hotels 671 Automotive repair, services, and parking 672 Personal services 673 Membership organizations 674 Private Households	485	Local and suburban transit and interurban highway passenger transport
22 Electric, gas, and sanitary services 2212 Natural gas transmission 2213 Water supply 22131 Irrigation systems 22132 Sewerage systems 481 Transportation by air 482 Railroad Transportation 483 Water transportation 484 Motor freight transportation and warehousing 485 Local and suburban transit and interurban highway passenger transport 486 Pipelines, except natural gas 487 Transportation services 513 Communications 562212 Refuse systems 421 to 422 WHOLESALE TRADE 441 to 454 RETAIL TRADE 521 to 533 FINANCE, INSURANCE, AND REAL ESTATE SERVICES 514 Business services 514199 Miscellaneous services 551 Legal services 561 Engineering, accounting, research, management, and related services 621 Health services 622 Health services 624 Social services 625 Museums, art galleries, and botanical and zoological gardens 671 Miscellaneous repair, services 671 Hotels 671 Miscellaneous repair services 672 Hotels 673 Amusement and recreation services 674 Hotels 675 Miscellaneous repair services 677 Hotels 677 Museums, art galleries, and parking 678 Personal services 679 Personal services 671 Automotive repair, services, and parking 679 Personal services 671 Personal services 671 Potels 672 Personal services 673 Personal services 674 Personal services 675 Personal services 676 Personal services 677 Personal services 677 Personal services 678 Personal services 679 Personal services 670 Personal services 671 Personal services 671 Personal services 672 Personal services 673 Personal services 674 Personal services 675 Personal services 676 Personal services 677 Personal services 677 Personal services 678 Personal services 679 Personal services 670 Personal services 671 Personal services 672 Personal services 673 Personal services 674 Personal services 675 Personal services 676 Personal services 677 Personal services 677 Personal services 678 Personal services 679 Personal services 670 Personal services 671 Personal services 672 Personal services 673 Personal services 674 Personal services 675 Personal services 676 Personal services 677	484	Motor freight transportation and warehousing
2212 Natural gas transmission 2213 Water supply 22131 Irrigation systems 22132 Sewerage systems 481 Transportation by air 482 Railroad Transportation 483 Water transportation 484 Motor freight transportation and warehousing 485 Local and suburban transit and interurban highway passenger transport 486 Pipelines, except natural gas 487 Transportation services 513 Communications 562212 Refuse systems 421 to 422 WHOLESALE TRADE 441 to 454 RETAIL TRADE 521 to 533 FINANCE, INSURANCE, AND REAL ESTATE SERVICES 512 Motion pictures 514 Business services 514 Legal services 514 Legal services 561 Engineering, accounting, research, management, and related services 622 Health services 624 Social services 712 Museums, art galleries, and botanical and zoological gardens 713 Amusement and recreation services 714 Miscellaneous repair, services, and parking 815 Personal services 816 Membership organizations 817 Private Households	22	
22131 Irrigation systems 22132 Sewerage systems 481 Transportation by air 482 Railroad Transportation 483 Water transportation 484 Motor freight transportation and warehousing 485 Local and suburban transit and interurban highway passenger transport 486 Pipelines, except natural gas 487 Transportation services 513 Communications 562212 Refuse systems 421 to 422 WHOLESALE TRADE 421 to 422 WHOLESALE TRADE 421 to 533 FINANCE, INSURANCE, AND REAL ESTATE SERVICES 514 Business services 514 Business services 514 Business services 514 Legal services 561 Engineering, accounting, research, management, and related services 621 Health services 622 Health services 624 Social services 624 Social services 712 Museums, art galleries, and botanical and zoological gardens 713 Amusement and recreation services 721 Hotels 811 Miscellaneous repair, services, and parking 812 Personal services 813 Membership organizations 814 Private Households	2212	
22132 Sewerage systems 481 Transportation by air 482 Railroad Transportation 483 Water transportation 484 Motor freight transportation and warehousing 485 Local and suburban transit and interurban highway passenger transport 486 Pipelines, except natural gas 487 Transportation services 513 Communications 562212 Refuse systems 421 to 422 WHOLESALE TRADE 421 to 533 FINANCE, INSURANCE, AND REAL ESTATE SERVICES 512 Motion pictures 514 Business services 514199 Miscellaneous services 541 Legal services 561 Engineering, accounting, research, management, and related services 611 Education services 622 Health services 624 Social services 712 Museums, art galleries, and botanical and zoological gardens 713 Amusement and recreation services 714 Hotels 715 Membership organizations 716 Personal services 717 Automotive repair, services, and parking 718 Personal services 719 Membership organizations 710 Private Households	2213	Water supply
481 Transportation by air 482 Railroad Transportation 483 Water transportation 484 Motor freight transportation and warehousing 485 Local and suburban transit and interurban highway passenger transport 486 Pipelines, except natural gas 487 Transportation services 513 Communications 562212 Refuse systems 421 to 422 WHOLESALE TRADE 421 to 533 FINANCE, INSURANCE, AND REAL ESTATE SERVICES 514 Business services 514 Business services 514 Business services 514 Legal services 514 Engineering, accounting, research, management, and related services 611 Education services 621 Health services 622 Health services 624 Social services 624 Social services 625 Hotels 811 Miscellaneous repair services, and botanical and zoological gardens 814 Personal services 815 Membership organizations 816 Private Households	22131	Irrigation systems
482 Railroad Transportation 483 Water transportation 484 Motor freight transportation and warehousing 485 Local and suburban transit and interurban highway passenger transport 486 Pipelines, except natural gas 487 Transportation services 513 Communications 562212 Refuse systems 421 to 422 WHOLESALE TRADE 441 to 454 RETAIL TRADE 521 to 533 FINANCE, INSURANCE, AND REAL ESTATE SERVICES 512 Motion pictures 514 Business services 514 Business services 514 Legal services 561 Engineering, accounting, research, management, and related services 611 Education services 622 Health services 624 Social services 712 Museums, art galleries, and botanical and zoological gardens 713 Amusement and recreation services 714 Miscellaneous repair services 815 Membership organizations 816 Private Households	22132	Sewerage systems
Water transportation Water transportation Motor freight transportation and warehousing Local and suburban transit and interurban highway passenger transport Pipelines, except natural gas Transportation services Communications Communications Sec212 Refuse systems 421 to 422 WHOLESALE TRADE RETAIL TRADE FINANCE, INSURANCE, AND REAL ESTATE SERVICES Motion pictures Motion pictures Moscellaneous services Legal services Engineering, accounting, research, management, and related services Engineering, accounting, research, management, and related services Engineering, accounting, research, management, and related services Health services Engineering, accounting, research, management, and related services Museums, art galleries, and botanical and zoological gardens Amusement and recreation services Miscellaneous repair services Miscellaneous repair services Automotive repair, services, and parking Membership organizations Private Households	481	Transportation by air
484 Motor freight transportation and warehousing 485 Local and suburban transit and interurban highway passenger transport 486 Pipelines, except natural gas 487 Transportation services 513 Communications 562212 Refuse systems 421 to 422 WHOLESALE TRADE 441 to 454 RETAIL TRADE 521 to 533 FINANCE, INSURANCE, AND REAL ESTATE SERVICES 512 Motion pictures 514 Business services 514 Business services 541 Legal services 561 Engineering, accounting, research, management, and related services 621 Health services 622 Health services 624 Social services 625 Museums, art galleries, and botanical and zoological gardens 671 Amusement and recreation services 671 Hotels 871 Miscellaneous repair services 872 Hotels 873 Amusement and recreation services 874 Automotive repair, services, and parking 875 Personal services 877 Personal services 878 Membership organizations 879 Private Households	482	Railroad Transportation
484 Motor freight transportation and warehousing 485 Local and suburban transit and interurban highway passenger transport 486 Pipelines, except natural gas 487 Transportation services 513 Communications 562212 Refuse systems 421 to 422 WHOLESALE TRADE 441 to 454 RETAIL TRADE 521 to 533 FINANCE, INSURANCE, AND REAL ESTATE SERVICES 512 Motion pictures 514 Business services 514 Business services 541 Legal services 561 Engineering, accounting, research, management, and related services 621 Health services 622 Health services 624 Social services 712 Museums, art galleries, and botanical and zoological gardens 713 Amusement and recreation services 721 Hotels 811 Miscellaneous repair services 813 Membership organizations 814 Private Households	483	Water transportation
Local and suburban transit and interurban highway passenger transport Pipelines, except natural gas Transportation services Communications Refuse systems Halt to 422 WHOLESALE TRADE RETAIL TRADE Services Housiness services Housiness services Motion pictures Huspan Miscellaneous services Legal services Legal services Legal services Legal services Legal services Health services Legal services Museums, art galleries, and botanical and zoological gardens Miscellaneous repair services Hotels Miscellaneous repair services Hotels Miscellaneous repair, services, and parking Personal services Membership organizations Private Households	484	
Transportation services Communications Refuse systems WHOLESALE TRADE Att to 422 WHOLESALE TRADE FINANCE, INSURANCE, AND REAL ESTATE SERVICES Motion pictures Motion pictures Miscellaneous services Legal services Engineering, accounting, research, management, and related services Education services Health services Code Social services Museums, art galleries, and botanical and zoological gardens Museums, art galleries, and botanical and zoological gardens Museums, art galleries, and parking Miscellaneous repair services Automotive repair, services, and parking Personal services Membership organizations Membership organizations Private Households	485	
513 Communications 562212 Refuse systems 421 to 422 WHOLESALE TRADE 441 to 454 RETAIL TRADE 521 to 533 FINANCE, INSURANCE, AND REAL ESTATE SERVICES 512 Motion pictures 514 Business services 5141 Legal services 561 Engineering, accounting, research, management, and related services 611 Education services 622 Health services 624 Social services 712 Museums, art galleries, and botanical and zoological gardens 713 Amusement and recreation services 711 Hotels 811 Miscellaneous repair services 811 Automotive repair, services, and parking 812 Personal services 813 Membership organizations 814 Private Households	486	Pipelines, except natural gas
Refuse systems 421 to 422 WHOLESALE TRADE 441 to 454 RETAIL TRADE 521 to 533 FINANCE, INSURANCE, AND REAL ESTATE SERVICES 512 Motion pictures 514 Business services 5141 Legal services 561 Engineering, accounting, research, management, and related services 611 Education services 622 Health services 624 Social services 712 Museums, art galleries, and botanical and zoological gardens 713 Amusement and recreation services 721 Hotels 811 Miscellaneous repair services, and parking 812 Personal services 813 Membership organizations 814 Private Households	487	Transportation services
421 to 422 441 to 454 RETAIL TRADE 521 to 533 FINANCE, INSURANCE, AND REAL ESTATE SERVICES 512 Motion pictures 514 Business services 514199 Miscellaneous services 541 Legal services 561 Engineering, accounting, research, management, and related services 611 Education services 622 Health services 624 Social services 712 Museums, art galleries, and botanical and zoological gardens 713 Amusement and recreation services 721 Hotels 811 Miscellaneous repair services 811 Automotive repair, services, and parking 812 Personal services 813 Membership organizations 814 Private Households	513	Communications
441 to 454 521 to 533 FINANCE, INSURANCE, AND REAL ESTATE SERVICES 512 Motion pictures 514 Business services 514199 Miscellaneous services 541 Legal services 561 Engineering, accounting, research, management, and related services 611 Education services 622 Health services 624 Social services 712 Museums, art galleries, and botanical and zoological gardens 713 Amusement and recreation services 721 Hotels 811 Miscellaneous repair services 811 Automotive repair, services, and parking 812 Personal services 813 Membership organizations 814 Private Households	562212	Refuse systems
521 to 533 FINANCE, INSURANCE, AND REAL ESTATE SERVICES Motion pictures Business services 514 Business services Miscellaneous services Legal services Engineering, accounting, research, management, and related services Education services Health services Social services Museums, art galleries, and botanical and zoological gardens Musement and recreation services Hotels Miscellaneous repair services Miscellaneous repair, services, and parking Personal services Membership organizations Membership organizations Private Households	421 to 422	WHOLESALE TRADE
512 Motion pictures 514 Business services 514199 Miscellaneous services 541 Legal services 561 Engineering, accounting, research, management, and related services 611 Education services 622 Health services 624 Social services 712 Museums, art galleries, and botanical and zoological gardens 713 Amusement and recreation services 721 Hotels 811 Miscellaneous repair services 811 Automotive repair, services, and parking 812 Personal services 813 Membership organizations 814 Private Households	441 to 454	RETAIL TRADE
Business services 514199 Miscellaneous services 541 Legal services 561 Engineering, accounting, research, management, and related services 611 Education services 622 Health services 624 Social services 712 Museums, art galleries, and botanical and zoological gardens 713 Amusement and recreation services 721 Hotels 811 Miscellaneous repair services 811 Automotive repair, services, and parking 812 Personal services 813 Membership organizations 814 Private Households	521 to 533	FINANCE, INSURANCE, AND REAL ESTATE SERVICES
514199 Miscellaneous services 541 Legal services 561 Engineering, accounting, research, management, and related services 611 Education services 622 Health services 624 Social services 712 Museums, art galleries, and botanical and zoological gardens 713 Amusement and recreation services 721 Hotels 811 Miscellaneous repair services 811 Automotive repair, services, and parking 812 Personal services 813 Membership organizations 814 Private Households	512	Motion pictures
Legal services Engineering, accounting, research, management, and related services Education services Health services Social services Museums, art galleries, and botanical and zoological gardens Amusement and recreation services Hotels Miscellaneous repair services Miscellaneous repair, services, and parking Personal services Membership organizations Private Households	514	Business services
Engineering, accounting, research, management, and related services Education services Health services Social services Museums, art galleries, and botanical and zoological gardens Amusement and recreation services Hotels Miscellaneous repair services Miscellaneous repair, services, and parking Personal services Membership organizations Private Households	514199	Miscellaneous services
611 Education services 622 Health services 624 Social services 712 Museums, art galleries, and botanical and zoological gardens 713 Amusement and recreation services 721 Hotels 811 Miscellaneous repair services 8111 Automotive repair, services, and parking 812 Personal services 813 Membership organizations 814 Private Households	541	Legal services
622 Health services 624 Social services 712 Museums, art galleries, and botanical and zoological gardens 713 Amusement and recreation services 721 Hotels 811 Miscellaneous repair services 811 Automotive repair, services, and parking 812 Personal services 813 Membership organizations 814 Private Households	561	Engineering, accounting, research, management, and related services
624 Social services 712 Museums, art galleries, and botanical and zoological gardens 713 Amusement and recreation services 721 Hotels 811 Miscellaneous repair services 811 Automotive repair, services, and parking 812 Personal services 813 Membership organizations 814 Private Households	611	Education services
Museums, art galleries, and botanical and zoological gardens Amusement and recreation services Hotels Miscellaneous repair services Automotive repair, services, and parking Personal services Membership organizations Private Households	622	Health services
713 Amusement and recreation services 721 Hotels 811 Miscellaneous repair services 8111 Automotive repair, services, and parking 812 Personal services 813 Membership organizations 814 Private Households	624	Social services
721 Hotels 811 Miscellaneous repair services 8111 Automotive repair, services, and parking 812 Personal services 813 Membership organizations 814 Private Households	712	Museums, art galleries, and botanical and zoological gardens
Miscellaneous repair services Automotive repair, services, and parking Personal services Membership organizations Private Households	713	Amusement and recreation services
8111 Automotive repair, services, and parking 812 Personal services 813 Membership organizations 814 Private Households	721	Hotels
812 Personal services 813 Membership organizations 814 Private Households	811	Miscellaneous repair services
813 Membership organizations 814 Private Households	8111	Automotive repair, services, and parking
814 Private Households	812	Personal services
	813	Membership organizations
92 PUBLIC ADMINISTRATION	814	Private Households
	92	PUBLIC ADMINISTRATION

U.S. Department of Energy
U.S. Energy Information Administration
Form EIA-860 (2011)

ANNUAL ELECTRIC GENERATOR REPORT

Form Approved OMB No. 1905-0129 Approval Expires: 12/31/2013

Burden: 9.4 hours

GLOSSARY

The glossary for this form is available online at the following URL: http://www.eia.gov/glossary/index.html

SANCTIONS

The timely submission of Form EIA-860 by those required to report is mandatory under Section 13(b) of the Federal Energy Administration Act of 1974 (FEAA) (Public Law 93-275), as amended. Failure to respond may result in a penalty of not more than \$2,750 per day for each civil violation, or a fine of not more than \$5,000 per day for each criminal violation. The government may bring a civil action to prohibit reporting violations, which may result in a temporary restraining order or a preliminary or permanent injunction without bond. In such civil action, the court may also issue mandatory injunctions commanding any person to comply with these reporting requirements. **Title 18 U.S.C. 1001 makes it a criminal offense for any person knowingly and willingly to make to any Agency or Department of the United States any false, fictitious, or fraudulent statements as to any matter within its jurisdiction.**

REPORTING BURDEN

Public reporting burden for this collection of information is estimated to average 6.75 hours per response for response for respondents without environmental information and 12.5 hours per response for respondents with environmental information, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. The weighted average burden for the Form EIA-860 is 9.4 hours per response. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to the U.S. Energy Information Administration, Statistics and Methods Group, EI-70, 1000 Independence Avenue S.W., Forrestal Building, Washington, DC 20585-0670; and to the Office of Information and Regulatory Affairs, Office of Management and Budget, Washington, D.C. 20503. A person is not required to respond to the collection of information unless the form displays a valid OMB number.

PROVISIONS REGARDING CONFIDENTIALITY OF INFORMATION

Information reported on Form EIA-860 will be treated as non-sensitive and may be publicly released in identifiable form except as noted below.

The information reported for the data element "Tested Heat Rate" contained on SCHEDULE 3, PART B. GENERATOR INFORMATION – EXISTING GENERATORS will be treated as sensitive and protected to the extent that it satisfies the criteria for exemption under the Freedom of Information Act (FOIA), 5 U.S.C. §552, the Department of Energy regulations, 10 C.F.R. §1004.11, implementing the FOIA, and the Trade Secrets Act, 18 U.S.C. §1905.

The Federal Energy Administration Act requires the EIA to provide company-specific data to other Federal agencies when requested for official use. The information reported on this form may also be made available, upon request, to another component of the Department of Energy (DOE); to any Committee of Congress, the Government Accountability Office, or other Federal agencies authorized by law to receive such information. A court of competent jurisdiction may obtain this information in response to an order. The information may be used for any nonstatistical purposes such as administrative, regulatory, law enforcement, or adjudicatory purposes.

Disclosure limitation procedures are applied to the sensitive statistical data published from SCHEDULE 3 PART B. GENERATOR INFORMATION – EXISTING GENERATORS, Tested Heat Rate, on Form EIA-860 to ensure that the risk of disclosure of identifiable information is very small.

U.S. Department of Energy U.S. Energy Information Administration Form EIA-860 (2011)

ANNUAL ELECTRIC GENERATOR REPORT

Form Approved OMB No. 1905-0129

Approval Expires: 12/31/2013

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NOTICE: This report is **mandatory** under the Federal Energy Administration Act of 1974 (Public Law 93-275). Failure to comply may result in criminal fines, civil penalties and other sanctions as provided by law. For further information concerning sanctions and disclosure information, see the provisions stated on the last page of the instructions. **Title 18 USC 1001 makes it a criminal offense for any person knowingly and willingly to make to any Agency or Department of the United States any false, fictitious, or fraudulent statements as to any matter within its jurisdiction.**

SCHEDULE 1. I	DENTIFICATION			
Survey Contact				
First Name:	Last Name:			
Title:	Address:			
Phone (include extension):	Fax:			
Email:				
Supervisor of Conta	nct Person for Survey			
First Name:	Last Name:			
Title:	Address:			
Phone (include extension):	Fax:			
Email:				
	ort For			
Operator Name:				
Operator ID:				
Reporting as of December 31 of year:				
Operator and Preparer Information				
Legal Name of Operator:				
	or:			
Preparer's Legal Name (If Different From Operator's Legal Name):				
Current Address of Preparer's Office (If Different From Current Address of Principal Business Office of Entity):				
Is the Operator an Electric Utility? [] Yes [] No				
For questions or additional information about the Form EIA-860, contact the survey staff:				
Patricia Hutchins Vlad Dorjets				

Patricia Hutchins
Telephone Number: (202) 586-1029
Fax Number: (202) 287-1960
Email: Patricia.Hutchins@eia.gov

Vlad Dorjets
Telephone Number: (202) 586-3141
Fax Number: (202) 287-1960
Email: Vlad.Dorjets@eia.gov

U.S. Department of Energy

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Form Approved OMB No. 1905-0129

	ergy Informatio A-860 (2011)	n Administration		OR REPOR	Approval Expir Burden: 9.4 ho	Il Expires: 12/31/2013				
Operato	r Name:									
Operator	r ID:	-		Reporting a	as of Dec	ember 31 of Yea	ır:			
(EXIST	ING POWER PI	S LANTS AND THOS	CHEDULE 2. POV SE PLANNED FOR			CIAL OPERATIO	N WITHIN 1	0 YEARS)		
LINE				PLANT 1						
1	Plant Name			EIA Plant Code						
2	Street Address									
3	County Name		C	City Name						
4	State									
5	Zip Code									
6	Latitude (Degr Seconds)	s, Minutes,								
7	Enter Datum fo	Seconds) Seconds) Enter Datum for Latitude and Longitude, if Known; Otherwise Enter "UNK"								
8a	NERC Region									
8b	Does this Plan		[] Yes	[] No						
8c	Name of RTO	ctric Reliability dwest ISO w York ISO ner	Council of 1	Гexas						
9	Name of Water	r Source (For Purp	oose of Cooling o	r Hydroeled	etric)					
10	Steam Plant S	tatus [] existing	[] plan	ned	[] retired	[]	NA		
11	Steam Plant T		nbustible 100 MW nbustible 10 MW (_			-	nte capacity		
12	Primary Purpo Code)	ose of the Plant (No	orth American Inc	lustry Class	sificatior	n System				
13	Facility (QF) C	t have Federal End ogenerator status sing a comma.					[]Yes	[]No		
14	Does this plan Facility (QF) S number(s). Se		[]Yes	[]No						
15	Facility (QF) E	t have Federal End xempt Wholesale eparate by using a	Generator status				[]Yes	[]No		
16a	Owner of Tran									
16b	Grid Voltage (i	in kilovolts)								

U.S. Department of Energy

Form Approved

	ergy Information A-860 (2011)	n Administration	ANNUA GENERA	AL ELEC ATOR RE	OMB No. 1905 Approval Expi Burden: 9.4 h	res: 12/31/2	013				
	r Name: r ID:			Repor	ting as of De	ecember 31 of Yea	ır:				
(EXIST	ING POWER PL		SCHEDULE 2. PC SE PLANNED FO			RCIAL OPERATIO	N WITHIN 1	0 YE	ARS)		
LINE				PLANT	2						
1	Plant Name			EIA Pla	nt						
2	Street Address										
3	County Name			City Na	me		1				
4	State										
5	Zip Code	•									
6	Latitude (Degree Seconds)	atitude (Degrees, Minutes, econds) Longitude (Degrees, Minutes, Seconds)									
7	Enter Datum fo	or Latitude and Lo	ongitude, if Knov	vn; Othe	rwise Entei	r "UNK"					
8a	NERC Region										
8b	Does this Plan	t Belong to a RT0	or ISO?				[] Yes	[] No		
8c	Name of RTO	California ISO Electric Reliabil Southwest Power Pool Midwest ISO Midwest ISO Southwest Power Pool Midwest ISO M									
9	Name of Water	Source (For Pur	pose of Cooling	or Hydro	electric)						
10	Steam Plant St	atus	[] existing	[]	planned	[] retired	ed [] NA				
11	Steam Plant Ty		mbustible 10 MW		_	or nameplate capa er 100 MW genera	-	ate ca	apacity		
12	Primary Purpo Code)	se of the Plant (N	lorth American Ir	ndustry (Classification	on System					
13		t have Federal Er ogenerator status sing a comma.					[] Yes	I	[]No		
14	Does this plan Facility (QF) Si number(s). Se		[] Yes	ı	[] N o						
15	Facility (QF) E	t have Federal Er xempt Wholesale parate by using a	Generator statu				[] Yes	ı	[] No		
16a	Owner of Trans										
16b	Grid Voltage (i	n kilovolts)									

U.S. Department of Energy U.S. Energy Information Administration Form EIA-860 (2011)

ANNUAL ELECTRIC GENERATOR REPORT

Form El	A-860 (2011)		GENERA	PORT		Burden: 9.4 hours				
Operator	· Name:									
Operator	· ID:	-			Repor	ting as of De	cember	31 of Yea	ır:	
(EXIST	ING POWER PI	LANTS AI		SCHEDULE 2. PO SE PLANNED FO			CIAL O	PERATIO	N WITHIN 1	I0 YEARS)
LINE					PLAN	Г3				
1	Plant Name				EIA Pla Code	nt				
2	Street Address									
3	County Name				City Na	me				
4	State									
5	Zip Code									
6	Latitude (Degr Seconds)	ees, Minu	utes,		Longit Secon	ude (Degree ds)	es, Minu	ites,		
7	Enter Datum fo	or Latitud								
8a	NERC Region									
8b	Does this Plan	t Belong	to a RT	O or ISO?					[] Yes	[] No
8c	Name of RTO	[] California ISO [] Electric Reliable [] Southwest Power Pool [] Midwest ISO [] PJM Interconnection [] New York ISO [] ISO New England [] Other								Texas
9	Name of Water	r Source	(For Pur	pose of Cooling	or Hydr	oelectric)				
10	Steam Plant St	tatus		[] existing	[]	planned]] retired	[]] NA
11	Steam Plant T	ype		mbustible 100 M\ mbustible 10 MW		-	-	-	-	ate capacity
12	Primary Purpo Code)	se of the	Plant (N	Iorth American Ir	ndustry	Classificatio	on Syste	em		
13		ogenerat	or status	nergy Regulatory s? If Yes, provid				fying	[] Yes	[]No
14	Does this plant have Federal Energy Regulatory Commission (FERC) Qualifying Facility (QF) Small Power Producer status? If Yes, provide all QF docket number(s). Separate by using a comma.								[] Yes	[]No
15		xempt W	holesale	nergy Regulatory Generator statu a comma.					[] Yes	[]No
16a	Owner of Tran	smission	and/or	Distribution Faci	lities					
16b	Grid Voltage (i	n kilovol	ts)							

U.S. Department of Energy U.S. Energy Information Administration

ANNUAL ELECTRIC GENERATOR REPORT

Form El	A-860 (2011)		GLIVLKATOR	ırden: 9.4 h	4 hours					
Operator	· Name:									
Operator	· ID:	-	Re	porting as	of Decemb	per 31 of Yea	ar:			
(EXIST	ING POWER PI		CHEDULE 2. POWER E PLANNED FOR IN			. OPERATIO	N WITHIN 1	0 YEARS)		
LINE			PL	ANT 4						
1	Plant Name		EIA Cod	Plant e						
2	Street Address									
3	County Name		City	Name						
4	State									
5	Zip Code									
6	Latitude (Degr Seconds)	ees, Minutes,		ngitude (D conds)	egrees, Mi	inutes,				
7	Enter Datum fo	or Latitude and Lor	ngitude, if Known; C	therwise	Enter "UN	K"				
8a	NERC Region									
8b	Does this Plan	t Belong to a RTO	or ISO?				[] Yes	[] No		
8c	Name of RTO	or ISO [] Califo	c Reliability st ISO ork ISO	Council of	Texas					
9	Name of Water	Source (For Purp	ose of Cooling or H	ydroelectr	ic)					
10	Steam Plant S	tatus [] existing [] planne	ed	[] retired	ired [] NA			
11	Steam Plant T		bustible 100 MW or bustible 10 MW or 0	_			-	ate capacity		
12	Primary Purpo Code)	se of the Plant (No	orth American Indus	try Classif	ication Sy	stem				
13		ogenerator status?	ergy Regulatory Con ? If Yes, provide all				[] Yes	[]No		
14	Does this plan Facility (QF) S number(s). Se	[] Yes	[]No							
15	Facility (QF) E		ergy Regulatory Con Generator status? If comma.				[] Yes	[]No		
16a	Owner of Tran	smission and/or D			1					
16b	Grid Voltage (i	n kilovolts)								

U.S. Department of Energy U.S. Energy Information Administration Form EIA-860 (2011)

ANNUAL ELECTRIC GENERATOR REPORT

Form El	A-860 (2011)			Burden: 9					en: 9.4 h	hours				
Operator	· Name:													
Operator	· ID:	-			Repor	ting as	of Decem	ber	31 of Yea	ar:				
			_	CHEDULE 2. PO										
•	ING POWER PI	LANTS AN	ND THOS	E PLANNED FC			MERCIA	L O	PERATIC	N WI	THIN 1	0 YEA	RS)	
LINE		ı			PLAN									
1	Plant Name				EIA Pla Code	nt								
2	Street Address													
3	County Name				City Na	me								
4	State													
5	Zip Code													
6	Latitude (Degr Seconds)	ees, Minu	ıtes,		Longit Secon	•	egrees, N	linu	tes,					
7	Enter Datum fo	or Latitud	le and Lo	ngitude, if Knov	wn; Othe	rwise E	nter "UN	lK"						
8a	NERC Region													
8b	Does this Plan	t Belong	to a RTO	or ISO?						[]	Yes	[] No	
8c	Name of RTO	[] California ISO [] Electric Reliable [] Southwest Power Pool [] Midwest ISO [] PJM Interconnection [] New York ISO [] ISO New England [] Other								Cou	ncil of	Texas		
9	Name of Water	r Source ((For Purp	ose of Cooling	or Hydr	pelectri	c)							
10	Steam Plant St	tatus]] existing	[]	planne	d	[] retired		[]] NA		
11	Steam Plant T	•		bustible 100 M bustible 10 MW		_		-	-	-	amepla	ate car	pacity	
12	Primary Purpo Code)	se of the	Plant (No	orth American I	ndustry	Classifi	cation S	yste	em					
13		ogenerate	or status	ergy Regulatory ? If Yes, provid					fying	[]	Yes	[] No	
14	Does this plant have Federal Energy Regulatory Commission (FERC) Qualifying Facility (QF) Small Power Producer status? If Yes, provide all QF docket number(s). Separate by using a comma.							fying	[]	Yes	[] No		
15	Does this plant have Federal Energy Regulatory Commission (FERC) Qualify Facility (QF) Exempt Wholesale Generator status? If Yes, provide all QF does number(s). Separate by using a comma.							[]	Yes	[] No			
16a	Owner of Tran	smission	and/or D	istribution Faci	ilities									
16b	Grid Voltage (i	wner of Transmission and/or Distribution Facilities												

U.S. Department of Energy U.S. Energy Information Administration

ANNUAL ELECTRIC GENERATOR REPORT

Form El	A-860 (2011)				Burden: 9.4 ho	ours	
Operator	Name:						_
Operator	r ID:		Repor	ting as of De	ecember 31 of Yea	r:	
(EXIST	ING POWER PI		CHEDULE 2. POWER PI E PLANNED FOR INITIA			N WITHIN 10	YEARS)
LINE			PLAN	6			
1	Plant Name		EIA Pla Code	nt			
2	Street Address						
3	County Name		City Na	me			
4	State						
5	Zip Code						
6	Latitude (Degr Seconds)	ees, Minutes,	es, Minutes,				
7	Enter Datum fo	or Latitude and Lo	ngitude, if Known; Othe	rwise Enter	"UNK"		
8a	NERC Region						
8b	Does this Plan	t Belong to a RTO	or ISO?			[] Yes	[] No
8c	Name of RTO	or ISO [] Calife [] South [] PJM	lectric Reliability lidwest ISO ew York ISO ther	Council of T	exas		
9	Name of Water	r Source (For Purp	ose of Cooling or Hydro	pelectric)			
10	Steam Plant S	tatus [] existing []	planned	[] retired	[]	NA
11	Steam Plant T		bustible 100 MW or mo	•	•	city	
12	Primary Purpo Code)	ese of the Plant (No	orth American Industry	Classificatio	on System		
13		ogenerator status	ergy Regulatory Commi ? If Yes, provide all QF			[] Yes	[]No
14	Facility (QF) S	t have Federal End mall Power Produc eparate by using a		[] Yes	[]No		
15	Facility (QF) E		ergy Regulatory Commi Generator status? If Ye comma.			[] Yes	[]No
16a	Owner of Tran	smission and/or D	istribution Facilities				
16b	Grid Voltage (i	in kilovolts)					

U.S. E	Department of Energy Energy Information Administration EIA-860 (2011)		NUAL ELEC ERATOR RE		Form Approved OMB No. 1905-0129 Approval Expires: 12/31/2013 Burden: 9.4 hours							
Oper	ator Name:											
Oper	ator ID:		Repor	ting as of Dec	cember 31 of Y	ear:						
	SCI		IEDULE 3. GENERATOR INFORMATION E PLANNED FOR INITIAL COMMERCIAL OPERATION WITHIN 10 YEA									
	SCHEDULE 3, PA (COMPLETE O											
1	Plant Name											
2	EIA Plant Code											
		Genera	itor (a)	Gener	ator (b)	Genera	itor (c)					
3	Operator's Generator Identification											
4	Associated Boiler Identifications	1 2 3 4	5 6 7 8	1 2 3 4	5 6 7 8	1 2 3 4	5 6 7 8					
5	Prime Mover											
6	Unit Code (Multi-Generator Code)											
7	Ownership											
8	Is This Generator an Electric Utility Generator?	[] Yes	[] No	[] Yes	[]No	[] Yes	[] No					
9	Date of Sale If Sold (MM-YYYY)											
10	Can This Generator Deliver Power to the Transmission Grid?	[] Yes	[] No	[]Yes	[] No	[] Yes	[] No					
11	For Combined-Cycle Steam Turbines (i.e. Prime Mover = CA, CS or CC) Does this Generator Have Duct-Burners?	[]Yes	[] No	[]Yes	[] No	[]Yes	[] No					

U.S. E Form	S. Department of Energy S. Energy Information Administration Perm EIA-860 (2011) ANNUAL ELECTRIC GENERATOR REPORT REPORT Perator Name: Operator ID: ODE 301 ODE												
•													
	Name:						Pla	ant Cod	e:		_		
керо	orting as of December 31 of Yea		CENEE	ATOD	INEOD	MATIO	N EV	ISTING	GENE	DATOE	96		
	(COMPLE												
	,		Genera			1	Genera	· · · · · · · · · · · · · · · · · · ·		1	Genera	ator (c)	
1	Generator Nameplate Capacity (Megawatts)												
		Summ	er:			Summ	er:			Summ	er:		
2	Net Capacity (Megawatts)	Winter	r:			Winter	:			Winter	·:		
3a	Maximum Expected Reactive Power Output (MVAR)												
3b	Maximum Reactive Power Absorption (MVAR)												
4	Status Code												
5	If Status Code is Standby, Can the Generator be Synchronized to the Grid?	ι :] Yes	[]	No	[] Yes	[]	No	[]	Yes	[]	No
6	Initial Date of Operation (MM-YYYY)												
7	Retirement Date (MM-YYYY)												
8a	Is This Generator Associated with a Combined Heat and Power System?	[]] Yes	[]	No	[]	Yes	[]	No	[]	Yes	[]	No
8b	If Yes, Is This Generator Part of a Topping or Bottoming Cycle?		[] To [] Bot		J		[] To [] Bot		ı		[] To [] Bot	pping toming	ļ
	ENERGY SOURCES												
9a	Predominant Energy Source												
9b	If coal-fired or petroleum coke fired, check all combustion technologies that apply to the associated boiler(s) and steam conditions	[] F [] S [] S [] U	ulveriz luidized ub-crit uper-cu ltra su arbon-	d Bed ical ritical per-crit	ical	[] F [] S [] S	Pulveriz Fluidize Sub-crit Super-c Jitra su Carbon	ed Bed tical critical per-cri	tical	[] F [] S [] S [] U	Fluidize Sub-cri Super-c Ultra su	tical	tical
10	Start-Up and Flame Stabilization Energy Sources	а	b	С	d	а	b	С	d	а	b	С	d
11	Second Most Predominant Energy Source												
		а	b	С	d	а	b	С	d	а	b	С	d

12 Other Energy Sources

U.S. E	U.S. Department of Energy U.S. Energy Information Administration Form EIA-860 (2011)			ANNUAL ELECTRIC GENERATOR (Form Approved OMB No. 1905-0129 Approval Expires: 12/31/2013 Burden: 9.4 hours							
Oper	ator Name:								Op	era	tor ID:						
Plant	Name:										Code:						
Repo	rting as of December 31 of Year	r:															
	SCHEDULE 3, PA (COMPLE												ORS				
	·		Gene						Senera				G	enera	ator	(c)	
13	Is This Generator Part of a Solid Fuel Gasification System?	[] Yes		[] No	[:]	Yes	I	[] No		[]	⁄es	[] N	lo
14	Number of Turbines, Buoys, or Inverters																
15a	Tested Heat Rate																
15b	Fuel Used For Heat Rate Test																
16	Annual Average Operating Efficiency for Solar Photovoltaic, Wind and Hydroelectric Generators																
	PROPOSED CHANGES TO EX	KISTIN	IG GEI	NEI	RAT	ORS (W	/ITHIN	1 TH	IE NE	XT	10 YEAR	S)					
17a	Are There Any Planned Modifications to This Generator, Including Retirement?	[] Yes		[]	No	[] Yes [] No						[]	Yes	[] No)
	Planned Uprates:																
	1. Incremental Net Summer capacity (MW)																
17b	2. Incremental Net Winter capacity (MW)																
	3. Planned Effective Date (MM-YYYY)																
	Planned Uprates:																
	1. Incremental Net Summer capacity (MW)																
17c	2. Incremental Net Winter capacity (MW)																
	3. Planned Effective Date (MM-YYYY)																
	Planned Repowering:																
	1. New Prime Mover																
17d	2. New Energy Source																
170	3. New Nameplate Capacity																
	4. Planned Effective Date (MM-YYYY)																
4-	Other Modifications? (explain in Notes)	[] Yes	;	[]	No		[]	Yes	[] No		[]	Yes	[] No)
17e	Planned Effective Date (MM- YYYY)																

U.S. Department of Energy U.S. Energy Information Administration Form EIA-860 (2011)

ANNUAL ELECTRIC GENERATOR REPORT

. 0	ZIA 000 (Z011)			Burden: 9.4 hours							
Oper	ator Name:					Operato	or ID:				
Plant	Name:					Plant C	ode:				
Repo	rting as of December 31 of Yea										
	SCHEDULE 3, PA (COMPLE										
		G	enerator	(a)	Ge	enerator ((b)	G	enerator ((c)	
17f	Planned Generator Retirement Date (MM-YYYY)										
	FUEL SWITCHING AND CO-F	IRING CA	APABILIT	Υ							
18	Can This Generator be	[]	Yes [] No	[]	Yes [] No	[] Yes [] No			
10	Powered by Multiple Fuels?		kip to SCH 3, PART C			kip to SCH 3, PART C			kip to SCH 3, PART C		
19	Can This Unit Co-Fire	[]	Yes [] No	[]	Yes [] No	[]Yes []No			
13	Fuels?	If No,	Skip to Li	ne 23.	If No,	Skip to Li	ne 23.	If No,	Skip to Li	ne 23.	
		а	b	С	а	b	С	а	b	С	
20	Fuel Options for Co-Firing										
_0	Tuoi opiiono foi oo i ming	d	е	f	d	е	f	d	е	f	
21	Can This Generator be Powered by Co-Fired Fuel	[]	Yes [] No	[]	Yes [] No	[]	Yes [] No	
	Oil and Natural Gas?	If Yes,	Skip to L	ine 23.	If Yes,	Skip to L	ine 23.	If Yes,	Skip to Li	ine 23.	
	Can This Generator be Run	[]	Yes [] No	[]Yes []No []Ye				Yes [] No	
	on 100% Oil?	If Yes,	Skip to L	ine 23.	If Yes,	Skip to L	ine 23.	If Yes,	Skip to Li	ine 23.	
22	If No, What is the Maximum Oil Heat Input When Co- Firing with Natural Gas?			%	_		%			%	
	What is the Maximum Output Achievable (Net Summer Capacity in MW) When Making the Maximum Use of Oil and Co-Firing Natural Gas?		MW			N	iw		M	ıw	
23	Can This Unit Fuel Switch?	[]	Yes [] No	[]	Yes [] No	[]	Yes [] No	
23	Can This Onit I del Switch:	If No, S	kip to Sch Part C.	edule 3,	If No, SI	kip to Sch Part C.	edule 3,	If No, S	kip to Sch Part C.	edule 3,	
	Can This Unit Switch Between Oil and Natural	[]	Yes [] No	[]	Yes [] No	[] Yes [] No			
24	Gas?	If No,	Skip to Li	ne 26.	If No,	Skip to Li	ne 26.	If No, Skip to Line 26.			
	If Yes, Can the Unit Switch Fuels While Operating?	[]	Yes [] No	[]	Yes [] No	[] Yes [] No			

U.S. E	Department of Energy Energy Information Administra EIA-860 (2011)	ation A	NNUAL E	ELECTRIC REPOI	Form Approved OMB No. 1905-0129 Approval Expires: 12/31/2013 Burden: 9.4 hours							
Oper	ator Name:					Operato	or ID:					
Plant	Name:					Plant C	ode:					
Repo	orting as of December 31 of Yea	r:										
	SCHEDULE 3, PA (COMPLE											
		Ge	enerator ((a)	Ge	enerator ((b)	Generator (c)				
	What is the Maximum Net Summer Output Achievable (MW) When Running on Natural Gas?		N	1W		N	IW	MW				
	What is the Maximum Net Summer Output Achievable (MW) When Running on Fuel Oil?		N	1W		N	iw					
	How Much Time is Required to Switch This Unit From Using 100% Natural Gas to Using 100% Oil?	[] 0 to 6 [] over 6 [] over 7 [] over 7 [] Unknown	6 to 24 ho 24 to 72 h 72 hours.	nours	[] 0 to 6 [] over 6 [] over 7 [] over 7 [] Unknown	6 to 24 ho 24 to 72 h 72 hours.	ours	[] 0 to 6 hours [] over 6 to 24 hours [] over 24 to 72 hours [] over 72 hours. [] Unknown or uncertain				
	Are There Factors That Limit the Unit's Ability to Switch From Natural Gas to Oil?		Yes [Skip to Li] No ne 26.		Yes [Skip to Li] No ne 26.		Yes [] No ne 26.		
25	If Yes, Check All Factors That Apply	[] Limited on site fuel storage. ck All Factors [] Air Permit limits				ed on site ermit limit (specify ILE 7. NTS)	ts	[] Limited on site fuel storage. [] Air Permit limits [] Other (specify in SCHEDULE 7.				
		а	b	С	а	b	С	a b C				
26	ruel Switching Options d e f				d	е	f	d	е	f		

U.S. E	Department of Energy Energy Information Administra EIA-860 (2011)	ation	ANNUAL ELECTRIC GENERATOR REPORT					R OM App	Form Approved OMB No. 1905-0129 Approval Expires: 12/31/2013 Burden: 9.4 hours					
Oper	ator Name:						Op	erator l	D:					
	Name:		Plant Code:											
Repo	rting as of December 31 of Yea													
	SCHEDULE 3, PAI (COMPLE										RS			
	(COMPLE	IE ON	Genera			1	Genera			Generator (c)				
1	Generator Nameplate Capacity (Megawatts)			(4)				(3)				(1)		
2	Net Capacity (Megawatts)	Sumn	ummer: S		Summ	er:			Summ	er:				
	iver capacity (megawatts)	Winte	r:			Winter:				Winter:				
3a	Maximum Expected Reactive Power Output (MVAR)													
3b	Maximum Reactive Power Absorption (MVAR)													
4	Status Code													
5	Planned Original Effective Date (MM-YYYY)													
6	Planned Current Effective Date (MM-YYYY)													
7	Will This Generator be Associated with a Combined Heat and Power System?]] Yes	[]	No	[]] Yes	[]	No	[]] Yes	[]	No	
8	Will This Generator be Part of a Solid Fuel Gasification System?	[] Yes	[]	No	[]] Yes	[]	No	[]] Yes	[]	No	
9	Is This Generator Part of a Site That Was Previously Reported as Indefinitely Postponed or Cancelled?	[] Yes	[]	No	[]] Yes	[]	No	[]] Yes	[]	No	
	PLANNED ENERGY SOURCE	S												
10	Expected Predominant Energy Source													
11	If coal-fired or petroleum coke fired, check all combustion technologies that apply to the associated boiler(s) and steam conditions	[] F [] S [] S [] U	Pulverized coal Fluidized Bed Sub-critical Super-critical Ultra super-critical Carbon-capture		Pulverized coal Fluidized Bed Sub-critical Super-critical Ultra super-critical Carbon-capture				[] Pulverized coal [] Fluidized Bed [] Sub-critical [] Super-critical [] Ultra super-critical [] Carbon-capture					
12	Expected Second Most Predominant Energy Source													
12	Other Energy Sources	а	b	С	d	а	b	С	d	а	b	С	d	
13	Other Energy Sources													

Number of Turbines, Buoys, or Inverters

U.S. Department of Energy U.S. Energy Information Administration Form EIA-860 (2011)		TRIC GENERATOR PORT	Form Appr OMB No. 1 Approval E Burden: 9	905-0129 Expires: 12/31/2013				
Operator Name:		Operator ID:						
Plant Name:		Plant Code:						
Reporting as of December 31 of Year:_								
SCHEDULE 3, PART C. GENERATOR INFORMATION – PROPOSED GENERATORS (COMPLETE ONE COLUMN FOR EACH GENERATOR, BY PLANT)								
	Generator (a)	Generator (b)		Generator (c)				

	FUEL SWITCHING AND CO-FIRING CAPABILITY											
15	Will This Generator be Able to be Powered by Multiple		Yes [Undeterm] No ined	[] [](Yes [Jndeterm] No ined		[] Yes [] No [] Undetermined			
	Fuels?		Jndetermi SCHEDUL			Jndetermi CHEDUL	ned, Skip E 4.		If No or Undetermined, Skip to SCHEDULE 4.			
16	Will this Unit be Able to Co-	[]	Yes [] No	[]	Yes [] No	[] Yes [] No				
10	Fire Fuels?	If No,	Skip to Li	ne 20.	If No,	Skip to Li	ne 20.	If No, Skip to Line 20.				
		а	b	С	а	b	С	а	b	С		
17	Fuel Options for Co-Firing	_		_	_			_				
		d	е	f	d	е	f	d	е	f		
18	Will This Generator be Able	[]	Yes [] No	[]	Yes [] No	[]Yes []No				
10	to be Powered by Co-Fired Fuel Oil and Natural Gas?	If No,	Skip to Li	ne 20.	If No,	Skip to Li	ne 20.	If No,	Skip to Li	ne 20.		
	Will This Generator be able to Run on 100% Oil?	[]	Yes [] No	[]	Yes [] No	[]	Yes [] No		
		If Yes,	, Skip to L	ine 20.	If Yes,	Skip to L	ine 20.	If Yes,	Skip to L	ine 20.		
19	If No, What is the Expected Maximum Oil Heat Input When Co-Firing with Natural Gas?	_		%	_		%	%				
	What is the Expected Maximum Output Achievable (Net Summer Capacity in MW) When Making the Maximum Use of Oil and Co-Firing Natural Gas?		N	1W	_	N	iw	MW				
20	Will This Unit be Able to	[]	Yes [] No	[]	Yes [] No	[] Yes [] No				
20	Fuel Switch?	If No, S	kip to Sch	edule 4.	If No, S	kip to Sch	edule 4.	If No, Skip to Schedule 4.				
	Will This Unit be Able to	[]	Yes [] No	[] Yes [] No			[] Yes [] No				
21	Switch Between Oil and Natural Gas?	If No,	Skip to Li	ne 23.	If No,	Skip to Li	ne 23.	If No,	Skip to Li	ne 23.		

U.S. E	Energy Information Administra EIA-860 (2011)	ation A	n ANNUAL ELECTRIC GENERA REPORT				Profit Approved OMB No. 1905-0129 Approval Expires: 12/31/2013 Burden: 9.4 hours					
Opera	ator Name:				Operator ID:							
Plant	Name:			DI O . I								
Repo	rting as of December 31 of Yea	r:										
	•				MATION – PROPOSED GENERATORS CH GENERATOR, BY PLANT)							
		G	enerator ((a)	Ge	enerator ((b)	Generator (c)				
	If Yes, Will this Unit be Able to Switch Fuels While Operating?	[]	Yes [] No	[]	Yes [] No	[]	Yes [] No		
	What is the Expected Maximum Net Summer Output Achievable (MW) When Running on Natural Gas?	_	N	iw		N	ıw	MW				
	What is the Expected Maximum Net Summer Output Achievable (MW) When Running on Fuel Oil?		MW		MW			MW				
	How Much Time is Expected to be Required to Switch This Unit From Using 100% Natural Gas to Using 100% Oil?	[] over [] over [] over	hours 6 to 24 ho 24 to 72 h 72 hours. own or u	nours	[] 0 to 6 hours [] over 6 to 24 hours [] over 24 to 72 hours [] over 72 hours. [] Unknown or uncertain			[] 0 to 6 hours [] over 6 to 24 hours [] over 24 to 72 hours [] over 72 hours. [] Unknown or uncertain				
	Are There Factors That Will Limit the Unit's Ability to Switch From Natural Gas to		Yes [Yes [[] Yes [] No If No, Skip to Line 26.				
22	Oil? If Yes, Check All Factors That Apply	storage.		ts		ermit limi (specify ILE 7.	ts	[] Limited on site fuel storage. [] Air Permit limits [] Other (specify in SCHEDULE 7.				
	a b c					b	С	а	b	С		
23	Fuel Switching Options	d	е	f	d	е	f	d	е	f		

ANNUAL ELECTRIC GENERATOR REPORT

Form Approved
OMB No. 1905-0129
Approval Expires: 12/31/2013

,		Burden: 9.4 hours								
Operator Name:										
Operator ID:		Reporting as of December 31 of Y	′ear:	_						
SCHEDULE 4. OWNER:	SHIP OF GEN	NERATORS OWNED JOINTLY OR BY C	OTHERS							
PLANT NAME (a)										
EIA PLANT CODE (b)										
OPERATOR'S GENERATOR IDENTIFICATION	TION (c)									
IF JOINTLY OWNE	D – OWNER	NAME AND CONTACT INFORMATION	(d)							
Owner/Joint Owner 1: Name			% OWNED (e):							
Street Address			<u> </u>							
City, State and Zip Code			EIA CODE:							
Joint Owner 2: Name			% OWNED (e):							
Street Address										
City, State and Zip Code			EIA CODE:							
Joint Owner 3: Name			% OWNED (e):							
Street Address			· / L							
City, State and Zip Code			EIA CODE:							
Joint Owner 4: Name			% OWNED (e):							
Street Address										
City, State and Zip Code			EIA CODE:							
Joint Owner 5: Name			% OWNED (e):							
Street Address										
City, State and Zip Code			EIA CODE:							
Joint Owner 6: Name			% OWNED (e):							
Street Address										
City, State and Zip Code			EIA CODE:							
Joint Owner 7: Name			% OWNED (e):							
Street Address										
City, State and Zip Code			EIA CODE:							
Joint Owner 8: Name			% OWNED (e):							
Street Address										
City, State and Zip Code			EIA CODE:							
Joint Owner 9: Name			% OWNED (e):							
Street Address			,							
City, State and Zip Code			EIA CODE:							
Joint Owner 10: Name			% OWNED (e):							
Street Address										
City, State and Zip Code			EIA CODE:							
			Total	100%						

U.S. Department of Energy
U.S. Energy Information Administration
Form EIA-860 (2011)

ANNUAL ELECTRIC GENERATOR Form Approved OMB No. 1905-0129

orm EIA	-860 (2011)	REPORT		Approval Expires: 12/31/2013 Burden: 9.4 hours				
Operator	Name:					_		
Operator	ID:	Reportin	g as of Dece	mber 31 of Yea	r:			
	SCHEDULE 5. NEW G (COMPLETE FOR EACH GENERA	ENERATOR INTERCOL TOR ENTERING SERV						
LINE								
1	Plant Name and EIA Plant Code	Name:	Name:		Name:			
	Conservator ID	Code:	Code:		Code.			
2	Generator ID							
3	Date of Actual Generator Interconnection (MM-YYYY)							
4	Date of Initial Interconnection Request (MM-YYYY)							
5	Interconnection Site Location	City:	City:		City:			
		State:	State:		State:			
6	Grid Voltage At The Point Of Interconnection (kV)							
7	Owner of The Transmission or Distribution Facilities to Which Generator is Interconnected							
8	Total Cost Incurred for the Direct, Physical Interconnection (Thousa \$)	nd						
	Equipment Included in the Direct Interconnection Cost (Check All o the Following that Apply:)	f						
	a. Transmission or Distribution Li	ne []Yes []N	o []Y	es [] No	[] Yes	[] No		
9	b. Transformer	[] Yes [] N	o []Y	es [] No	[] Yes	[] No		
	c. Protective Devices	[] Yes [] N	o []Y	es [] No	[] Yes	[] No		
	d. Substation or Switching Station	[] Yes [] N	o []Y	es [] No	[] Yes	[] No		
	e. Other Equipment (specify in SCHEDULE 7. COMMENTS)	[] Yes [] N	o []Y	es []No	[] Yes	[] No		
10	a. Total Cost for Other Grid Enhancements/ Reinforcements Needed to Accommodate Power Deliveries From the Generator (Thousand \$)							
	b. Will This Cost Be Repaid?	[] Yes [] N	o []Y	es [] No	[] Yes	[] No		
11	Were Specific Transmission Use Rights Secured as a Result of the Interconnection Costs Incurred?	[] Yes [] N	o []Y	es []No	[]Yes	[] No		

U.S. Department of Energy U.S. Energy Information Administration Form EIA-860 (2011)				NUAL ELE	ECTRIC (REPORT		TOR	Form Approved OMB No. 1905-0129 Approval Expires: 12/31/2013 Burden: 9.4 hours				
Opera	ator Name:						0	pera	ator ID:_			
Plant	Name:			Plant Code:								
Repo	rting as of December 31											
	SCHEDULE 6. BOILER INFORMATION PART A. PLANT CONFIGURATION (FOR PLANTS EQUAL TO OR GREATER THAN 10 MW BUT LESS THAN 100 MW, COMPLETE ONLY LINES 1, 2, 3, AND IF APPLICABLE LINES 5 AND 6) EQUIPMENT EQUIPMENT EQUIPMENT EQUIPMENT											
LINE	EQUIPMENT TYPE	EQUIPMEN IDENTIFICAT (a)			CATION	IDENTI			IDENTIF		EQUIPMENT IDENTIFICATION (e)	
1	Boiler ID											
2	Associated Generator(s) ID											
3	Generator Associations with Boiler as Actual or Theoretical											
4	Associated Cooling System(s) ID											
5	Associated Flue Gas Particulate Collector(s) ID											
6	Associated Flue Gas Desulfurization Unit(s) ID											
7	Associated Flue(s) ID											
_ A	Associated Stack(s)											

U.S. Depa U.S. Ener Form EIA	ANNO	UAL EL	ECTRIC REPOR			Form Approv OMB No. 190 Approval Ex Burden: 9.4)5-0129 pires: 12/31/	2013		
Operator	Name:					(Operator ID:			
Plant Nar	me:					F	Plant Code:			
Reporting	g as of December 31 of Year:									
	SCHEDULE 6, PART B (DATA NOT F (COMPLE)	REQUI	RED FO	R PLAN	TS		N 100 MW)	ARDS		
LINE							•			
1	Boiler ID									
2a	Type Of Boiler Standards Unde Operating (use codes)	h The I				[] Db[N[]	1			
2b	Is Boiler Operating Under a New Source Review (NSR) Permit?						[] Yes	[] No		
20	If Yes, list date (MM-YYYY) and identification number of the issued permit							Permit Nu	mber	
	CATEGORY	PARTICULATE MATTER (a)				R DIOXIDE (b)		NITROGEN OXIDES (c)		
3	Type of Statute or Regulation (use codes)	FD[LO[-	ST [NA []	FD[] LO[]	ST[]	FD[] LO[]	ST[] NA[]	
	Emission Standard Specified									
4a	Emission Rate									
4b	Percent Scrubbed		N/	Ά					N/A	
5	Unit of Measurement Specified (use codes)									
6	Time Period Specified (use codes)									
7	Year Boiler Was or is Expected to Be in Compliance With Federal, State and/or Local Regulation									
8	If Not in Compliance, Strategy for Compliance (use codes)		N/	Ά			N/A			
9	Select Existing Strategies to meet the Sulfur Dioxide and Nitrogen Oxides Requirements of Title IV of the Clean Air Act Amendment of 1990 (use codes)		N/.	Ά						
10	Select Planned Strategies to meet the Sulfur Dioxide and Nitrogen Oxides Requirements of Title IV of the Clean Air Act Amendment of 1990 (use codes)		N/	Ά						

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Operate	or Name:		Operator ID:						
Plant N	ame:		Plant Code:						
Reporti	ng as of December 31 of Year:								
	(Except for Lines 1 ar	PART C. BOILER INFORMATION – DE nd 2, DATA NOT REQUIRED FOR PLA PLETE A SEPARATE PAGE FOR EAC	NTS LESS THAN 100 MW)						
LINE									
1	Boiler ID								
2	Boiler Status (use codes)								
3	Boiler Actual or Projected Date o	f Commercial Operation (MM-YYYY)							
4	Boiler Actual or Projected Retire	ment Date (MM-YYYY)							
5	Boiler Manufacturer (use code)								
6	Type of Firing Used with Primary	Fuels (use codes)							
7	Maximum Continuous Steam Flow at 100 Percent Load (thousand pounds per hour)								
8	Design Firing Rate at Maximum (0.1 ton per hour)	Continuous Steam Flow for Coal (near	rest						
9	Design Firing Rate at Maximum (nearest 0.1 barrels per hour)	Continuous Steam Flow for Petroleum							
10	Design Firing Rate at Maximum 0.1 thousand cubic feet per hour	Continuous Steam Flow for Gas (near	est						
11	Design Firing Rate at Maximum (specify fuel and unit in SCHEDU								
12	Design Waste Heat Input Rate at (million Btu per hour)	Maximum Continuous Steam Flow							
13	Primary Fuels Used in Order of P	redominance (use codes)							
14	Boiler Efficiency When Burning F (nearest 0.1 percent)	Primary Fuel at 100 Percent Load							
15	Boiler Efficiency When Burning F 0.1 percent)	Primary Fuel at 50 Percent Load (near	est						
16	Total Air Flow Including Excess a minute at standard conditions)	Air at 100 Percent Load (cubic feet pe	r						
17	Wet Or Dry Bottom (for coal-capa for Dry)	able boilers), (enter "W" for Wet or "D	"						
18	Fly Ash Re-injection (enter "Y" fo	or Yes or "N" for No)							

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Opera	ator Name:			0	perator ID:						
Plant	Name:										
	rting as of December 31 of Year:										
	SCHEDULE 6, PART D. BOILER INFORMATION – NITROGEN OXIDE EMISSION CONTROLS (COMPLETE A SEPARATE PAGE FOR EACH BOILER)										
1	Boiler ID										
2	Nitrogen Oxide Control Status (use codes)										
	NITROGEN O	XIDE	CONTROL EQUIPMENT	AND OR	PROCESS						
3	Low Nitrogen Oxide Control Proces (use codes)	ss									
4	Manufacturer of Low Nitrogen Oxid Control Burners (use code)	le									
	SCHEDULE 6, PART E. E	BOIL	ER INFORMATION - MER	CURY E	MISSION CONTROLS						
1	Does This Boiler Have Mercury Emission Controls?		Yes[]		No []						
2	If "Yes," Select Up To Three Mercu Emission Controls (use codes)	ry									

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Operator	Name:		Operator ID:					
Plant Nam	ne:	F	Plant Code:					
Reporting	as of December 31 of Year:							
	(DATA NOT F	COOLING SYSTEM INFORMATION - DE REQUIRED FOR PLANTS LESS THAN SEPARATE PAGE FOR EACH COOLI	l 100 MW)					
LINE	(**************************************		,					
1	Cooling System ID (as reported	on SCHEDULE 6, PART A, Line 4)						
2	Cooling System Status (use codes)							
3	Cooling System Actual or Projected In-Service Date of Commercial Operation (MM-YYYY)							
4a	Type of Cooling System (use co	odes)						
4b	For Hybrid Cooling Systems, Indicate Percent of Cooling Load Served by Dry Cooling Components.							
5a	Source (Name) of Cooling Water Including Makeup Water (if discharge is into different water body, specify in SCHEDULE 7. COMMENTS)							
5b	Type of Cooling Water Source (use codes)							
5c	Type of Cooling Water (use coo	des)						
6	Design Cooling Water Flow Rat	te at 100 percent Load at Intake (cubi	c feet per second)					
7	Actual or Projected In-Service I Equipment (MM-YYYY)	Date for Chlorine Discharge Control	Structures and					
		COOLING PONDS						
8	Actual or Projected In-Service I 1982)	Date (month and year of commercial	operation, e.g. 12-					
9	Total Surface Area (acres)							
10	Total Volume (acre-feet)							
		COOLING TOWERS						
11	Actual or Projected In-service [Date (MM-YYYY)						
12	Type of Towers (use codes)							
13	Maximum Design Rate of Water Flow at 100 Percent Load (cubic feet per second)							
14		at 100 Percent Load (megawatts)						
		SYSTEM EXCLUDING LAND AND CO	NDENSERS (thousand	dollars)				
15	Total System							
16	Ponds (if applicable)							

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17	Towers (if applicable)					
18	Chlorine Discharge Control Structures and Equipment (if applicable)					
COOLING WATER INTAKE AND OUTLET LOCATIONS						
	ITEM		II.	NTAKE (a)		OUTLET (b)
19	Maximum Distance from Shore (feet)					
20	Average Distance below Water Surface (feet)					
21	Latitude (degrees, minutes, seconds)					
22	Longitude (degrees, minutes, seconds)			_		
23	Enter Datum for Latitude and Longitude, if Known; Otherwise Enter "UNK"					

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Operator	Name:		Operator ID:	
Plant Nar	ne:		Plant Code:	
Reporting	g as of December 31 of Year:			
SCHEDULE 6, PART G. FLUE GAS PARTICULATE COLLECTOR INFORMATION (COMPLETE A SEPARATE PAGE FOR EACH FLUE GAS PARTICULATE COLLECTOR)				
LINE				
1	Flue Gas Particulate Collector ID (as reported on SCHEDULE 6, PART A line 5)			
2	Flue Gas Particulate Collector Actual or Projected In-Service Date of Commercial Operation (e.g., 12-2001)			
3	Flue Gas Particulate Collector Status (use code)			
4	Type of Flue Gas Particulate Collector (use codes)			
5	Installed Cost of Flue Gas Particulate Collector Excluding Land (thousand dollars)			
DESIGN FUEL SPECIFICATIONS FOR ASH (AS BURNED, TO NEAREST 0.1 PERCENT BY WEIGHT)				EIGHT)
6	For Coal			
7	For Petroleum			
DE	SIGN FUEL SPECIFICATIONS F	OR SULFUR (AS BURNED, TO NEAR	EST 0.1 PERCENT BY	WEIGHT)
8	For Coal			
9	For Petroleum			
	DESIGN SPECIF	FICATIONS AT 100 PERCENT GENER	RATOR LOAD	
10	Collection Efficiency (to neares	st 0.1 percent)		
11	Particulate Emission Rate (pounds per hour)			
12	Particulate Collector Gas Exit Rate (actual cubic feet per minute)			
13	Particulate Collector Gas Exit Temperature (degrees Fahrenheit)			

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J.S. Energy Information Administration Form EIA-860 (2011)			OMB No. 1905-0129 Approval Expires: 12	0/31/2013
OIII LIA-000 (2011)			Burden: 9.4 hours	2/31/2013
Operator Name: Operator ID:			_	
Plant Nar	me:	P	Plant Code:	-
Reporting	g as of December 31 of Year:			
		UE GAS DESULFURIZATION UNIT - TE PAGE FOR EACH FLUE GAS DES		
LINE				
1	Flue Gas Desulfurization Unit ID (as reported on SCHEDULE 6, PART A line 6)			
2	Flue Gas Desulfurization Unit Status (use codes)			
3	Flue Gas Desulfurization Unit Actual or Projected In-Service Date of Commercial Operation (MM-YYYY)			
4	Type of Flue Gas Desulfurizati	on Unit (use code)		
5	Type of Sorbent (use code)			
6	Salable Byproduct Recovery (enter "Y" for Yes or "N" for No)			
7	Flue Gas Desulfurization Unit Manufacturer (use code)			
8	Annual Pond and Land Fill Requirements (nearest acre foot per year)			
9	Is Sludge Pond Lined (enter "Y" for Yes, "N" for No, or "NA" for Not Applicable)			
10	Can Flue Gas Bypass Flue Gas Desulfurization Unit (enter "Y" for Yes or "N" for No)			
DESIGN FUEL SPECIFICATIONS FOR COAL				
11	Ash (to nearest 0.1 percent by	weight)		
12	Sulfur (to nearest 0.1 percent by weight)			
	NUMBER OF FLUE GAS DE	SULFURIZATION UNIT SCRUBBER	TRAINS (OR MODUL	ES)
13	Total			
14	Operated at 100 Percent Load			
DESI	GN SPECIFICATIONS OF FLUE	GAS DESULFURIZATION UNIT AT 1	00 PERCENT GENER	ATOR LOAD
15	Removal Efficiency for Sulfur	Dioxide (to nearest 0.1 percent by w	eight)	
16	Sulfur Dioxide Emission Rate (pounds per hour)			
17	Flue Gas Exit Rate (actual cubic feet per minute)			
18	Flue Gas Exit Temperature (de	egrees Fahrenheit)		
19	Flue Gas Entering Flue Gas Desulfurization Unit (percent of total)			
INST	FALLED COST OF FLUE GAS D	ESULFURIZATION UNIT, EXCLUDING	G LAND (THOUSAND	DOLLARS)
20	Structures and Equipment			
21	Sludge Transport and Disposa	al System		

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22	Other (installed cost of flue gas desulfurization unit)			
23	Total (sum of lines 20, 21, 22)			

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Operator	rator Name: Operator ID:			
Plant Nar	me:	F	Plant Code:	-
Reporting	as of December 31 of Year:			
	(DATA NOT I	TACK AND FLUE INFORMATION - DI REQUIRED FOR PLANTS LESS THAN SEPARATE PAGE FOR EACH STACI	N 100 MW)	
LINE	· ·		,	
1	Flue ID (as reported on SCHEDULE 6, PART A line 8)			
2	Stack ID (as reported on SCHE	DULE 6, PART A line 7)		
3	Stack (or Flue) Actual or Projected In-Service Date of Commercial Operation (e.g., 12-2001)			
4	Status of Stack (or Flue) (use code)			
5	Flue Height at Top from Ground Level (feet)			
6	6 Cross-Sectional Area at Top of Flue (nearest square foot)			
DESIGN FLUE GAS EXIT (AT TOP OF STACK)				
7	Rate at 100 Percent Load (actual cubic feet per minute)			
8	Rate at 50 Percent Load (actual cubic feet per minute)			
9	Temperature at 100 Percent Load (degrees Fahrenheit)			
10	Temperature at 50 Percent Load (degrees Fahrenheit)			
11	Velocity at 100 Percent Load (feet per second)			
12	Velocity at 50 Percent Load (fee			
	ACTUAL SEASONAL FL	UE GAS EXIT TEMPERATURE (DEG	REES FAHRENHEIT)	
13	Summer Season			
14	Winter Season			
15	Source (enter "M" for measured or "E" for estimated)			
		STACK LOCATION		
16	Stack Location - Latitude (degr	ees, minutes, seconds)		
17	Stack Location - Longitude (degrees, minutes, seconds)			
18	Enter Datum for Latitude and Longitude, if Known; Otherwise Enter "UNK"			

U.S. Department of Energy
U.S. Energy Information Administration
Form EIA-860 (2011)

ANNUAL ELECTRIC GENERATOR REPORT

Form Approved OMB No. 1905-0129 Approval Expires: 12/31/2013

Burden: 9.4 hours

Operator Name:	
Operator ID:	Reporting as of December 31 of Year:

SCHEDULE 7. COMMENTS (USE ADDITIONAL PAGES IF NECESSARY) **COMMENTS SCHEDULE** LINE **PART** (Including all identifying codes such as plant code, generator ID, **NUMBER** NUMBER or boiler ID to which the comment applies)



Subject: United States Department of Energy – EIA Monthly Data Collection, Form EIA-860M

Dear Respondent:

Note: The EIA 860M data collection for this reporting month will take into account both January and February 2010 updates to the 860M form.

Entities: [ENITITYNUMBER, ENTITYNAMES]

Facilities: [PLANTNAMES]

This message was sent to notify you that the February 2010 EIA-860M, Monthly Update to the Annual Electric Generator Report, is now available for e-filing. Before you submit your form, please consider the following:

If there is no change in the data shown for a generator, click in the "Check if no change" box; otherwise update (e.g., status code and/or planned current effective date/planned retirement date) the data in all applicable schedules and include any applicable notes in Schedule 4.

If a proposed retirement has occurred, remove the "Planned Modification or Retirement" indicator (Schedule 3, Line 1) by selecting null from the drop down list and enter the actual month and year of retirement in line 19.

If the "Planned Current Effective Date" (Schedule 2, Line 8) or the "Planned Retirement Month/Year" (Schedule 3, Line 19) is January or February 2010 or earlier the "Check if no change" box is not applicable. In this case, updates to status code/indicator and/or effective date(s) are required.

Please contact me if you are encountering difficulties with the form. I can be reached at (202) 586-1029 or <u>EIA-860M@eia.doe.gov</u>. The February 2010 EIA-860M is due February 15, 2010.

The website for accessing the EIA-860M is https://signon.eia.doe.gov/ssoserver/login.

Thank you for your time and cooperation in submitting timely, accurate data to the Energy Information Administration.

Sincerely,

Patricia Hutchins Survey Analyst, Form EIA-860M Electric Power Division Office of Coal, Nuclear, Electric and Alternate Fuels Energy Information Administration

U.S. Department of End U.S. Energy Informatio Form EIA-860M (2011)		MONTHLY UPDATE TO THE ANNUAL ELECTRIC GENERATOR REPORT	Form Approved OMB No. 1905-0129 Approval Expires: 12/31/2013 Burden: 0.3 hrs
PURPOSE	Form EIA-860M co	ollects data on the status of:	
	a) Proposed months,	new generators scheduled to begin of	commercial operation within the next 12
	b) Existing ge	enerators scheduled to retire from serv	rice within the next 12 months,
	c) Existing go within one		ations that are scheduled for completion
		tor the current status and trends of the	ication <i>Electric Power Monthly</i> . They are e electric power industry and to evaluate
REQUIRED RESPONDENTS	Respondents to the Form EIA-860M who are required to complete this form are all Form EIA-860, ANNUAL ELECTRIC GENERATOR REPORT , respondents who have indicated in a previous filing to EIA that they have either one of the following: (1) a proposed new generator scheduled to start commercial operation within the next 12 months, (2) an existing generator scheduled to retire from service within the next 12 months or (3) an existing generator with a proposed modification scheduled for completion within one month, of the report period (month).		
RESPONSE DUE DATE	Reporting on the EIA-860M must begin when either a new generator is within 12 mont		posed for retirement is within 12 months
			be the status of the generator as of the e 15 th day of the month following the data
METHODS OF FILING RESPONSE		lectronically using EIA's secure Internety protocols to protect information aga	
		not registered with EIA's Single Signto: <u>EIA-860M@eia.gov</u>	On system, send an email requesting
	 If you have 	registered with Single Sign-On, log or	n at https://signon.eia.gov/ssoserver/login
		naving a technical problem with logging Ilp Desk for further information. Conta	g into the IDC or using the IDC contact ct the Help Desk at:
		Email: <u>CNEAFhelpcenter</u>	
		Phone: 202-586-95	
	•	an alternate means of filing your resp	•
	Please retain a con	npleted copy of this form for your files.	
CONTACTS		Questions : For questions related to t formation immediately above.	the Internet Data Collection system, see
	Data Questions: Manager:	For questions about the data requeste	d on Form EIA-860M, contact the Survey

Patricia Hutchins

Telephone Number: (202) 586-2402 FAX Number: (202) 287-1960 Email: Patricia.Hutchins@eia.gov

U.S. Department of Energy
U.S. Energy Information Administration
Form EIA-860M (2011)

MONTHLY UPDATE TO THE ANNUAL ELECTRIC GENERATOR REPORT

Form Approved
OMB No. 1905-0129

Approval Expires: 12/31/2013

Burden: 0.3 hrs

ITEM-BY-ITEM INSTRUCTIONS

SCHEDULE 1. IDENTIFICATION

- 1. **Survey Contact:** Verify contact name, title, address, telephone number, fax number, and email address.
- 2. **Supervisor of Contact Person for Survey:** Verify the contact's supervisor's name, title, address, telephone number, fax number and email address.
- 3. **Report For:** Verify the Legal Name of the Entity, Entity Identification Number, address, city, state, zip code and reporting month and year. If incorrect, provide the correct information. Provide changes to Legal Name of the Entity in SCHEDULE 4. COMMENTS. Note that the Entity ID is assigned by EIA and cannot be altered.

If any of the above information is incorrect, revise the incorrect entry and provide the correct information. Provide any missing information.

SCHEDULE 2. UPDATES TO PROPOSED NEW GENERATORS

Changes to the generator data: If there is no change to the preprinted data, check "no change."

- 1. Identification Information (applicable in all Schedules):
 - Plant Name: Provide an explanation of name changes in SCHEDULE 4. COMMENTS.
 - Plant Code: If the information is incorrect, contact EIA.
 - **Plant State:** If the State listed is the incorrect location for the plant, provide correct State. Use the two-letter U.S. Postal abbreviation to show the State in which the plant is physically located.

If data are incorrect, provide revisions or updates in columns for updates. If data are missing, provide data.

2. For line 1, verify **Status Code**. Use the status codes from the following table:

Status Code	Status Code Description
IP	Planned new generator canceled, indefinitely postponed, or no
	longer in resource plan
TS	Construction complete, but not yet in commercial operation (including
	low power testing of nuclear units)
Р	Planned for installation but regulatory approvals not initiated; not
	under construction
L	Regulatory approvals pending; not under construction, but site
	preparation could be underway
Т	Regulatory approvals received; not under construction but site
	preparation could be underway
U	Under construction, less than or equal to 50 percent complete (based
	on construction time to date of operation)
V	Under construction, more than 50 percent complete (based on
	construction time to date of operation)
OP	Operating (in commercial operation)
OT	Other (Explain in SCHEDULE 4. COMMENTS)

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Approval Expires: 12/31/2013

Burden: 0.3 hrs

- 3. For line 2, verify **Prime Mover Type.** If re-powering is completed, update prime mover type, as appropriate.
- For combined cycle units, enter a prime mover code for each generator.
- Use the prime mover codes from the following table:

Prime	
Mover	Description
BA	Energy Storage, Battery
CP	Energy Storage, Concentrated Solar Power
ES	Energy Storage, Other (Describe in Schedule 4, COMMENTS)
FW	Energy Storage, Flywheel
ОТ	Steam Turbine, including nuclear, geothermal and solar steam (does not
ST	include combined cycle).
GT	Combustion (Gas) Turbine – Simple Cycle (includes jet engine design)
IC	Internal Combustion Engine (diesel, piston, reciprocating)
CA	Combined Cycle Steam Part
OΤ	Combined Cycle Combustion Turbine Part (type of coal or solid must be
СТ	reported as energy source for integrated coal gasification). Combined Cycle Single Shaft (combustion turbine and steam turbine share a
CS	single generator)
00	Combined Cycle Total Unit (use only for plants/generators that are in planning
CC	stage, for which specific generator details cannot be provided).
HA	Hydrokinetic, Axial Flow Turbine
HB	Hydrokinetic, Wave Buoy
	Hydraulic Turbine (includes turbines associated with delivery of water by
HY	pipeline)
HK	Hydrokinetic, Other (Describe in SCHEDULE 4, COMMENTS)
PS	Hydraulic Turbine – Reversible (pumped storage)
BT	Turbines Used in a Binary Cycle (such as used for geothermal applications)
PV	Photovoltaic
WT	Wind Turbine
CE	Compressed Air Energy Storage
FC	Fuel Cell
OT	Other (Describe in SCHEDULE 4, COMMENTS)

- 4. For line 3, verify **Nameplate Capacity**. If the nameplate capacity is expressed in kilovolt amperes (kVA), convert to kilowatts by multiplying the power factor by the kVA, divide by 1,000 to express in megawatts to the nearest tenth.
- 5. For lines 4 and 5, verify **Net Summer Capacity** and **Net Winter Capacity**, respectively.
- 6. For line 6, verify **Energy Source 1**, the energy source that is expected to be used in the largest quantity (Btus) to power the generator. Select appropriate energy source codes from the table of energy source codes in these instructions. For generators driven by turbines using steam that is produced from waste heat or reject heat, report the original energy source used to produce the waste heat (reject heat).
- 7. For line 7, verify **Energy Source 2**, the energy source that is expected to be used in the second largest quantity (Btus) to power the generator. Select appropriate energy source codes from the table of energy source codes in these instructions. For generators driven by turbines using steam that is produced from waste heat or reject heat, report the original energy source used to produce the waste heat (reject heat).

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- For line 8, verify the Planned Current Effective Date that the generator is scheduled to start commercial operation, or enter the date the generator started commercial operation if reported status is "OP".
- 9. For line 9, enter Reason for Change in status or change in scheduled date. Check all of the reasons that apply; if "Other," explain in SCHEDULE 4, COMMENTS.

SCHEDULE 3. UPDATES TO PROPOSED CHANGES TO EXISTING GENERATORS

1. For line 1, verify **Status Code**. Use the status codes from the following table:

Status Code	Status Code Description
RP	Proposed for life extension or repowering
Α	Proposed generator net capacity increase (rerating or relicensing)
D	Proposed generator net capacity decrease (rerating or relicensing)
RT	Existing generator scheduled for retirement
RE	Retired - no longer in service and not expected to be returned to
	service
CN	Proposed change has been cancelled or indefinitely postponed
OP	Proposed change completed, generator available for commercial
	operation
OT	Other modification (Explain in SCHEDULE 4. COMMENTS)

- 2. For line 2, verify **Existing Prime Mover**, use codes from the table in these instructions.
- 3. For line 3, verify Nameplate Capacity. Report the highest value on the nameplate in megawatts rounded to the nearest tenth. If the nameplate capacity is expressed in kilovolt amperes (kVA), convert to kilowatts by multiplying the power factor by the kVA, divide by 1,000 to express in megawatts to the nearest tenth.
- 4. For line 4, verify Existing Net Summer Capacity.
- 5. For line 5, verify the Incremental Net Summer Capacity.
- 6. For line 6, verify **New Net Summer Capacity**, (sum of lines 4 and 5).
- 7. For line 7, verify Existing Net Winter Capacity.
- 8. For line 8, verify the Incremental Net Winter Capacity.
- 9. For line 9, verify **New Net Winter Capacity**, (sum of lines 7 and 8).
- 10. For line 10, verify Energy Source 1. (Predominant Energy Source). Update, as appropriate, based on the completion of any modification resulting in a change in energy source. Enter the appropriate energy source code from the table in these instructions.
- 11. For line 11, verify Energy Source 2, (Second Most Predominant Energy Source). Update, as appropriate, based on the completion of any modification resulting in a change in energy source. Enter the appropriate energy source code from the table in these instructions.
- 12. For line 12, verify **New Prime Mover**. For existing generators with a status code of "RP", enter the prime mover code that is applicable once the modification is complete if it will be different from the current prime mover. Use the codes for prime mover provided in these instructions.
- 13. For line 13, verify the Planned Current Effective Date. Enter the month and year that the modification is expected to be completed or the month and year that the generator is scheduled for retirement, as applicable. If the proposed modification is completed, enter

U.S. Department of Energy
U.S. Energy Information Administration
Form EIA-860M (2011)

ENERGY SOURCE

MONTHLY UPDATE TO THE ANNUAL ELECTRIC GENERATOR REPORT

Form Approved
OMB No. 1905-0129
Approval Expires: 12/31/2013

Burden: 0.3 hrs

Description

Renewable Energy Sources
Agricultural Crop Byproducts/Straw/Energy Crops

Specify in SCHEDULE 4. COMMENTS.

Wood/Wood Waste Solids. Including paper pellets, railroad

ties, utility poles, wood chips, bark, & wood waste solids Other Biomass Liquids. Specify in SCHEDULE 4.

Wood Waste Liquids, excluding Black Liquor. Includes

red liquor, sludge wood, spent sulfite liquor, and other

Municipal Solid Waste

Other Biomass Solids

COMMENTS

Sludge Waste

wood-based liquids.

Black Liquor

the actual date of completion and state "Completed' in SCHEDULE 4. COMMENTS and update status code to "OP".

14. For line 14, enter **Reason for Change** in the planned current effective **date**. Check all of the reasons that apply, if "Other," explain in SCHEDULE 4. COMMENTS.

CODES			
			Fossil Fuels
		BIT	Anthracite Coal and Bituminous Coal
		LIG	Lignite Coal
	Coal and Syncoal	SC	Coal-based Synfuel. Coal-based solid fuel that has been processed by a coal synfuel plant; and coal based fuels such as briquettes, pellets, or extrusions, which are formed from fresh or recycled coal and binding materials.
		SUB	Subbituminous Coal
		WC	Waste/Other Coal. Including anthracite culm, bituminous gob, fine coal, lignite waste, waste coal.
		DFO	Distillate Fuel Oil. Including Diesel, No. 1, No. 2, and No. 4 Fuel Oils.
		JF	Jet Fuel
		KER	Kerosene
	Petroleum Products	PC	Petroleum Coke
	Froducts	RFO	Residual Fuel Oil. Including No. 5, No. 6 Fuel Oils, and Bunker C Fuel Oil.
		WO	Waste/Other Oil. Including Crude Oil, Liquid Butane, Liquid Propane, Oil Waste, Re-Refined Motor Oil, Sludge Oil, Tar Oil, or other petroleum-based liquid wastes.
		BFG	Blast Furnace Gas
		NG	Natural Gas
	Natural Gas	OG	Other Gas
	and Other		Specify in SCHEDULE 4. COMMENTS
	Gases	PG	Gaseous Propane
		SG	Synthetic Gas, other than coal-derived
		SGC	Synthetic Gas, derived from coal

Energy Source

Code

AB

MSW

OBS

WDS

OBL

SLW

BLQ

WDL

Solid

Renewable

(Biomass)

Fuels

Liquid

Renewable

(Biomass)

Fuels

U.S. Department of Energy U.S. Energy Information Administration Form EIA-860M (2011)		MONTHLY UPDATE TO THE ANNUAL ELECTRIC GENERATOR REPORT		Form Approved OMB No. 1905-0129 Approval Expires: 12/31/2013 Burden: 0.3 hrs
	Gaseous	LFG	Landfill Gas	
	Renewable (Biomass) Fuels	OBG		s. Includes digester gas, methane, and es. Specify in SCHEDULE 4.
		SUN	Solar	
	Other	WND	Wind	
	Renewable	GEO	Geothermal	
	Energy Sources	WAT		tional Hydroplostria Turbino
		VVAI		tional Hydroelectric Turbine
		PUR	Purchased Steam	Energy Sources
	All Other Energy	WH	Waste heat not dir	ectly attributed to a fuel source. WH corted where the fuel source for the etermined.
	Sources	TDF	Tire-derived Fuels	
		NUC		Uranium, Plutonium, Thorium
		OTH	Specify in SCHED	ULE 4. COMMENTS.
	The timely submission of Form EIA-860M by those required to report is mandatory under Section 13(b) of the Federal Energy Administration Act of 1974 (FEAA) (Public Law 93-275), as amended. Failure to respond may result in a penalty of not more than \$2,750 per day for each civil violation, or a fine of not more than \$5,000 per day for each criminal violation. The government may bring a civil action to prohibit reporting violations, which may result in a temporary restraining order or a preliminary or permanent injunction without bond. In such civil action, the court may also issue mandatory injunctions commanding any person to comply with these reporting requirements. Title 18 U.S.C. 1001 makes it a criminal offense for any person knowingly and willingly to make to any Agency or Department of the United States any false, fictitious, or fraudulent statements as to any matter within its jurisdiction.			
BURDEN	Public reporting burden for this collection of information is estimated to average 0.3 hours per response, including the time of reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to the U.S. Energy Information Administration, Statistics and Methods Group, EI-70, 1000 Independence Avenue S.W., Forrestal Building, Washington, D.C. 20585-0670; and to the Office of Information and Regulatory Affairs, Office of Management and Budget, Washington, D.C. 20503. A person is not required to respond to the collection of information unless the form displays a valid OMB number.			
REGARDING THE CONFIDENTIALITY	Information reported on Form EIA-860M will be treated as non-sensitive and may be publicly released in identifiable form. In addition to the use of the information by EIA for statistical purposes, the information may be used for any nonstatistical purposes such as administrative, regulatory, law enforcement, or adjudicatory purposes.			

MONTHLY UPDATE TO THE ANNUAL ELECTRIC GENERATOR REPORT

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Approval Expires: 12/31/2013

Burden: 0.3 hrs

NOTICE: This report is **mandatory** under the Federal Energy Administration Act of 1974 (Public Law 93-275). Failure to comply may result in criminal fines, civil penalties and other sanctions as provided by law. For further information concerning sanctions and data protections see the provision on sanctions and the provision concerning the confidentiality of information in the instructions. **Title 18 USC 1001 makes it a criminal offense for any person knowingly and willingly to make to any Agency or Department of the United States any false, fictitious, or fraudulent statements as to any matter within its jurisdiction.**

	SCHEDULE 1. IDENTIFICATI	ON
	Survey Contact	
First Name:	Last Name:	
Title:		
Telephone (include extension):		Fax:
Email:		
	pervisor of Contact Person for	Survey
First Name:	Last Name:	
Title:		
Telephone (include extension):		Fax:
Email:		
	Report For	
Legal Name of Entity:		Entity ID:
Address:		
City:	State:	Zip Code:
Reporting Month/Year:		
For questions or additiona	l information about the Form EIA-860N	I contact the Survey Managers:
Patricia Hutchins		

Telephone Number: (202) 586-2402

FAX Number: (202) 287-1960 Email: Patricia.Hutchins@eia.gov U.S. Department of Energy

MONTHLY UPDATE TO THE

Form Approved

	ergy information Administr A-860M (2011)			JAL ELECTRIC RATOR REPOR		Approval Exp Burden: 0.3	ires:	=1=4	
Legal N	Name of Entity:								
Entity I	D:	State:	_	Repoi	rting N	//onth/Year:			_
	SCHEDULE	2. UPDATE	S TO	PROPOSED	NEW	GENERATO	RS		
Identifica	ation Information: Plant Na	me		PI	ant St	ate			
	Plant Co	de	-						
		Checl	k if no	change		Check if	no c	hange	
				gen ID preprint				gen ID preprint	
Line	Data Element	-	ast Data Reported This Month's		's	Last Data Reported			
No.		to EIA		Updates		to EIA		Updates	
1	Status Code	Pre-printed				Pre-printed			
			Pre-printed			Pre-printed			
3	Nameplate Capacity (MW)	Pre-printed				Pre-printed			
4	Net Summer Capacity (MW)	Pre-printed				Pre-printed			
5	Net Winter Capacity (MW)	Pre-printed				Pre-printed			
6	Energy Source 1	Pre-printed				Pre-printed			
7	Energy Source 2	Pre-printed		Pre-prin		Pre-printed	Pre-printed		
8	Planned Current Effective Date: MM/YYYY	Pre-printed				Pre-printed			
0	Reason for Change (check all that apply; if	Financial	[]	Equipment	[]	Financial	[]	Equipment	[]
9	"Other" explain in SCHEDULE 4)	Permitting	[]	Other	[]	Permitting	[]	Other	[]

U.S. Department of Energy U.S. Energy Information Administration Form EIA-860M (2011)			MONTHLY UPDATE TO THE ANNUAL ELECTRIC GENERATOR REPORT			OMB No. 1905 Approval Expi	Form Approved OMB No. 1905-0129 Approval Expires: 12/31/2013 Burden: 0.3 hrs	
Legal I	Name of Entity:				E	ntity ID:		
	Name:					lant ID:		
						eporting Month/\	/ear:	
	SCHEDULE 3. UPDA	TES TO P	ROPOS	ED CHANG	SES TO	EXISTING GEN	NERATORS	
		Chec	k if no cl	nange		Check if no	change	
				gen ID preprii	nt>	Generator <ei <="" td=""><td>A gen ID prepri</td><td>nt></td></ei>	A gen ID prepri	nt>
Line No.	Data Element	Last Data Th			This Month's Last Data Updates Reported to El		This Month's Updates	
1	Status Code	Pre-printed				Pre-printed	-	
2	Prime Mover (existing)	Pre-printed				Pre-printed		
3	Nameplate Capacity (MW)	Pre-printed				Pre-printed		
4	Existing Net Summer Capacity (MW)	Pre-printed				Pre-printed		
5	Incremental Net Summer Capacity (MW)	Pre-printed				Pre-printed		
6	New Net Summer Capacity (MW) (lines 4 +5)	Pre-printed				Pre-printed		
7	Existing Net Winter Capacity (MW)	Pre-printed				Pre-printed		
8	Incremental Net Winter Capacity (MW)	Pre-printed				Pre-printed		
	New Net Winter	Pre-printed			1	Pre-printed		

Pre-printed

Pre-printed

Pre-printed

Financial

Permitting

Equipment

[]

Other

[]

Capacity (MW) (lines 7

New Prime Mover Code

Effective Date: MM/YY

Reason for Change (check all that apply; if

Pre-printed

Pre-printed

Pre-printed

Pre-printed

Financial

Permitting

Energy Source 1

Energy Source 2

Planned Current

"Other" explain in

SCHEDULE 4. COMMENTS)

9

10

11

12

13

14

+ 8)

Equipment

Other

U.S. Department of Energy U.S. Energy Information Administration Form EIA-860M (2011)			MONTHLY UPDATE TO THE ANNUAL ELECTRIC GENERATOR REPORT	Form Approved OMB No. 1905-0129 Approval Expires: 12/31/2013 Burden: 0.3 hrs
Legal Name of	of Entity:			
Entity ID:			Reporting Me	onth/Year:
			SCHEDULE 4. COMMENTS	
SCHEDULE NUMBER (a)	LINE NUMBER (b)		NOTES (c)	



Subject: United States Department of Energy - EIA Annual Data Collection, Form EIA-861

Dear Respondent:

The Energy Information Administration's (EIA), electronic filing system (e-file) is now ready for you to report your annual electric data for the year 2010. You are required to file **Form EIA-861**, "**Annual Electric Power Industry Report.**" The survey is due no later than April 30, 2011. The EIA electric surveys are a mandatory collection under the authority of the Federal Energy Administration Act of 1974 (P.L. 93-275). Non-respondents and late filers are subject to financial penalties. The EIA encourages you to file your data using our IDC system.

If you are currently registered in the e-file system for secure electronic access with a Single Sign-On (SSO) account, you can login to the e-file system at: https://signon.eia.doe.gov/ssoserver/login and enter your User ID and Password to access your EIA surveys. If you are registered and have forgotten your password, but know the User ID, you can reset your password. Log on to the e-file system at the website listed above. Type your User ID and click on Forgot Your Password. Follow the prompts and you will be allowed to reset your password.

Please pay special attention to the password rules and be sure to record your new password. If you need assistance resetting your password, please call the Help Center at (202) 586-9595 or contact us via email at: cneafhelpcenter@eia.doe.gov.

If you are not registered, please contact the CNEAF Help Center at (202) 586-9595 or via email. Please choose only one method of contact for the CNEAF Help Center, either telephone or email. Please do not do both.

Edits have been built into the e-file system to assist you in providing accurate data. In order to successfully submit your forms, you must run the edits and address the warning messages for all flagged data by either correcting and/or commenting on each of the flagged data elements. Please go to the Error Log and click on the "Run EIA-861 Edits" button. Once you have corrected and/or commented on the appropriate edit flags, you should be able to submit your data by pressing the "Submit" button. If your data are accepted you should receive a message stating that your data have been successfully sent with the current date.

The timely submission of Form EIA-861 by those required to report is mandatory under Section 13(b) of the Federal Energy Administration Act of 1974 (FEAA) (Public Law 93-275), as amended. Failure to respond may result in a penalty of not more than \$2,750 per day for each civil violation, or a fine of not more than \$5,000 per day for each criminal violation. The government may bring a civil action to prohibit reporting violations, which may result in a temporary restraining order or a preliminary or permanent injunction without bond. In such civil action, the court may also issue mandatory injunctions commanding any person to comply with these reporting requirements. Title 18 U.S.C. 1001 makes it a criminal offense for any person knowingly and willingly to make to any Agency or Department of the United States any false, fictitious, or fraudulent statements as to any matter within its jurisdiction.

Your cooperation is greatly appreciated.

Sincerely,

XXXXXXXXXX Survey Manager Electric Power Division Office of Coal, Nuclear, Electric and Alternate Fuels Energy Information Administration

U.S. Department of E U.S. Energy Informat Form EIA-861 (2011)		ANNUAL ELECTRIC POWER INDUSTRY REPORT INSTRUCTIONS	Form Approved OMB No. 1905-0129 Approval Expires: 12/31/2013 Burden: 9.0 hrs				
PURPOSE	in the generation, territories, and Pue of electric utilities, t following EIA repor Annual Energy Out	Form EIA-861 collects information on the status of electric power industry participants involved in the generation, transmission, and distribution of electric energy in the United States, its territories, and Puerto Rico. The data from this form are used to accurately maintain the EIA list of electric utilities, to draw samples for other electric power surveys, and to provide input for the following EIA reports: <i>Electric Power Monthly, Monthly Energy Review, Electric Power Annual, Annual Energy Outlook, and Annual Energy Review.</i> The data collected on this form are used to monitor the current status and trends of the electric power industry and to evaluate the future of the industry.					
REQUIRED RESPONDENTS	utilities, all DSM F DSM program), wh Commission), ene	The Form EIA-861 is to be completed by electric power industry entities including: electric utilities, all DSM Program Managers (entities responsible for conducting or administering a DSM program), wholesale power marketers (registered with the Federal Energy Regulatory Commission), energy service providers (registered with the States), and electric power producers. Responses are collected at the business level (not at the holding company level).					
RESPONSE DUE DATE	Submit the comple year.	Submit the completed Form EIA-861 to the EIA by April 30, following the end of the calendar					
METHODS OF FILING RESPONSE	Submit your data electronically using EIA's secure internet data collection system (e-file). This system uses security protocols to protect information against unauthorized access during transmission. If you have not registered with EIA's Single Sign-On system, send an email requesting assistance to: EIA-861@eia.gov. If you have registered with Single Sign-On, log on at https://signon.eia.gov/ssoserver/login If you are having a technical problem with logging into e-file or using e-file contact the Help Desk for further information. Contact the Help Desk at: Email: CNEAFhelpcenter@eia.gov Phone: 202-586-9595						
	 If you need an alternate means of filing your response, contact the Help Desk. Please retain a completed copy of this form for your files. 						
CONTACTS	Internet System Questions: For questions related to e-file, see the help contact information immediately above.						
	Data Questions: F Manager:	or questions about the data requeste	ed on Form EIA-861, contact the Survey				
	Karen McDaniel (202) 586-4280	FAX Number: (202) 287- Email: EIA-861@eia.gov	Stephen Scott (202) 586-5140 1938				

ANNUAL ELECTRIC POWER INDUSTRY REPORT INSTRUCTIONS

Form Approved OMB No. 1905-0129 Approval Expires: 12/31/2013 Burden: 9.0 hrs

GENERAL INSTRUCTIONS

Submit the completed Form EIA-861 to the EIA by April 30, following the end of the calendar year.

- 1. Respondents, who also submit the Form EIA-826, "Monthly Electric Sales and Revenue Report with State Distributions," should coordinate the information submitted on the Form EIA-861, and Form EIA-826 to ensure consistency.
- 2. Complete the information at the top portion of the form with the name, telephone and FAX number, and address, of the current contact person, and the contact person's supervisor.
- 3. Report peak demand in megawatts and energy values (e.g., generation and sales) in megawatthours, except where noted. One megawatthour equals 1,000 kilowatthours. To convert kilowatthours to megawatthours, divide by 1,000 and round to the nearest whole number. For example, sales of 5,245,790 kilowatthours should be reported as 5,246 megawatthours.
- 4. Report in whole numbers (i.e., no decimal points), except where explicitly instructed to report otherwise. For example: revenue of \$8,459,688.42 should be reported as 8,460 (thousand dollars). There is one decimal place on the revenue on Schedule 3 and 4. Lines 4, 6 and 7 on Schedule 6A and line 3 on schedule 2C also contain one decimal point.
- 5. A state code can only be removed by highlighting the state and clicking on the **Remove Record** icon (Schedule 2C, 2D, 4A-D and 6D). The Remove Record icon is the last one in the icon row at the top (same row as the save and print button).
- 6. For number of customers, enter the average of the 12 close-of-month customer accounts.
 - All respondents having end-use customers, including retail power marketers selling
 power in deregulated, competitive State programs must use the average of the 12
 close-of-month customer counts when reporting on Schedule 4, even if your company
 began business after the beginning of the reporting year, or ended business before the
 close of the year.
 - Count each meter as a separate customer in cases where commercial franchise or residential customer-buying groups have been aggregated under one buyer representative. The customer counts for public-street and highway lighting should be one customer per community.
 - Please do not count each pole as a separate customer even if billing is by a flat rate per pole per month.
- 7. Use a minus sign for reporting negative numbers. Line 9 on schedule 2B must be a negative number. On schedule 2B, line 1 and schedule 3, line 4 and 5, the number may either positive or negative.
- 8. Where exact data are unavailable, report estimated data.
- 9. See the Glossary for terms used in this survey. The financial and accounting terms are consistent as outlined in the Uniform System of Accounts for Public Utilities and Licensees (U.S. of A.) (18 CFR Part 101).

ANNUAL ELECTRIC POWER INDUSTRY REPORT **INSTRUCTIONS**

Form Approved OMB No. 1905-0129 Approval Expires: 12/31/2013 Burden: 9.0 hrs

ITEM-BY-ITEM INSTRUCTIONS

SCHEDULE 1. IDENTIFICATION

- 1. Survey Contact: Verify contact name, title, address, telephone number, fax number, and address.
- 2. Supervisor of Contact Person for Survey: Verify the contact's supervisor's name, title, address, telephone number, Fax number and address. Supervisor contact must be different than the survey contact.
- 3. Report For: Verify all information, including entity name, entity identification number, and reporting year for which data are being reported. These fields cannot be revised online. Contact EIA if corrections are needed.

If any of the above information is incorrect, revise the incorrect entry and provide the correct information. Provide any missing information.

Entity and Preparer Information

- 4. Legal Name of Entity: Enter the legal name of the entity for which this form is being prepared.
- 5. Current Address of Entity's Principal Business Office: Enter the complete address. excluding the legal name, of the entity's principal business office (i.e., headquarters, main office, etc.).
- 6. Preparer's Legal Name: Enter the legal name of the company, which prepares this form, if different from the Legal Name of Entity.
- 7. Current Address of Preparer's Office: Enter the address to which this form should be mailed, if different from the Current Address of Entity's Principal Business Office. Include an attention line, room number, building designation, etc. to facilitate the future handling and processing of the Form EIA-861.

SCHEDULE 2. PART A. GENERAL INFORMATION

1. For line 1, please check all of the Regional Entities within the North American Electric Reliability Corporation (NERC), in which your organization conducts operations.

The Regional Entities are:

TRE	Texas Regional Entity
FRCC	Florida Reliability Coordinating Council
MRO	Midwest Reliability Organization
NPCC	Northeast Power Coordinating Council
RFC	Reliability First Corporation
SERC	Southeastern Electric Reliability Council
SPP	Southwest Power Pool
WECC	Western Electric Coordinating Council

For line 1a, select the RTO or ISO from the list:

- California ISO
- Electric Reliability Council of Texas
- Southwest Power Pool
- Midwest ISO
- PJM Interconnection
- New York ISO
- ISO New England
- Other

ANNUAL ELECTRIC POWER INDUSTRY REPORT INSTRUCTIONS

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If your RTO or ISO does not appear on the list, select "Other" and explain in SCHEDULE 9. COMMENTS

- 2. For line 3, **Balancing Authority(s)**, enter the name of the balancing authority(s) responsible for your oversight. If your balancing authority is not on the list, use "Other" and list the authority in the Comments (Schedule 9).
- 3. For line 4, **Operate Generating Plant(s)**, Check Yes to indicate that organization operated a generating plant(s) during the reporting period. Otherwise, Check No.
- 4. For line 5, **Activities**, Check the appropriate activities the electric entity was engaged in during the reporting year. **You must check at least one.**

Generation from company owned plant. Owned power generation only.

Transmission. Owned or leased transmission lines.

Buying transmission services on other electrical systems. Types of services include borderline customers, transmission line rental, transmission capacity, transmission wheeling, and system operational services.

Distribution using owned/leased electrical wires. Power delivery to your own end-use customers over distribution facilities.

Buying distribution on other electrical systems. Types of support include customer billing, distribution system support charges for energy delivered, line maintenance, and/or equipment charges.

Wholesale power marketing. Wholesale transactions with other electric utilities, purchases from power producers, and transactions to export and/or import electricity to, or from, Canada or Mexico. Also includes electrical sales and purchases among Federal Energy Regulatory Commission registered power marketers and similar participation in transactions with electric utilities.

Retail power marketing. Provision of electrical energy to end-use customers in areas where the customer has been given the legal right to select a power supplier other than the "traditional electric utility."

Bundled services. Provision of electricity in combination with gas, water, cable, Internet, and/or telephone for a single price.

- 5. For line 6, Highest Hourly Electrical Peak System Demand, electric utility companies should enter the maximum hourly summer load (for months of June through September) based on net energy for the system during the reporting year. Net energy for the system is the sum of energy an electric utility needs to satisfy their service area and includes full and partial wholesale requirements customers, and the losses experienced in delivery. The maximum hourly load is determined by the interval in which the 60-minute integrated demand is the greatest. If such data are unavailable, adjust available data to approximate a 60-minute demand interval and explain the adjustment on Schedule 9, Comments. If adjustments cannot be made, furnish data as available and explain on Schedule 9, Comments. For winter enter the maximum hourly winter load (for months of January through March, and the previous December) based on the net energy for the system during the reporting year. Please note: These data elements should be provided in megawatts, to the nearest tenth.
- 6. For line 7, Alternative Fueled Vehicles, Check Yes to indicate that your company owns/operates, or plans to own and operate, alternative fueled vehicles; otherwise Check No. If "Yes," provide the name, title, FAX number, telephone number and address of a contact person. Note: For the purpose of this question, an "alternative-fueled vehicle" is either designed or manufactured by an original equipment manufacturer or is a converted vehicle designed to operate in either dual-fuel, flexible-fuel, or dedicated modes on fuels other than gasoline or diesel. This does not include a conventional vehicle that is limited to operation on blended or reformulated gasoline fuels.

ANNUAL ELECTRIC POWER INDUSTRY REPORT INSTRUCTIONS

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SCHEDULE 2. PART B. ENERGY SOURCES AND DISPOSITION

- Enter the annual megawatthours (MWh) for all sources of electricity and disposition of electricity listed.
- 2. For line 1, **Net Generation**, enter the net generation (gross generation minus station use) from all respondent-owned plants. If a plant is jointly owned, enter only the reporting party's share of generation. Include generation used to replace system losses arising from wheeling transactions. Include net generation supplied as part of a tolling arrangement.
- 3. For line 2, Purchases from Electricity Suppliers, enter the total amount of energy purchased from electricity suppliers including: nonutility power producers and power marketers (reported separately in previous years), municipal departments and power agencies, cooperatives, investor-owned utilities, political subdivisions, State agencies and power pools, and marketing agencies of the United States Government and Canada; these agencies include Bonneville Power Administration (BPA), Southeastern Power Administration (SEPA), Southwestern Power Administration (SWPA), Western Area Power Administration (WAPA), Tennessee Valley Authority (TVA), United States Army Corps of Engineers, the United States Bureau of Reclamation, United States Bureau of Indian Affairs, International Boundary and Water Commission, Hydro-Quebec, etc. This entry includes requirements power, firm power and all other nonfirm service. Note: Please identify on Schedule 9, Comments, the portion of purchased power obtained through tolling arrangements, and any international purchases.
- 4. For line 3, **Exchanges Received (In)**, enter the amount of exchange energy received. Do not include power received through tolling arrangements.
- 5. For line 4, **Exchanges Delivered (Out)**, enter the amount of exchange energy delivered. Do not include power delivered as part of a tolling arrangement.
- 6. For line 5, **Exchanges (Net)**, enter the net amount of energy exchanged. Net exchange is the difference between the amount of exchange received and the amount of exchange delivered (lines 3-4). This entry should not include wholesale energy purchased from or sold to regulated companies or unregulated companies for other systems.
- 7. For line 6, **Wheeled Received (In)**, enter the total amount of energy entering your system from other systems for transmission through your system (wheeling) for delivery to other systems. Do not report as Wheeled Received, energy purchased or exchanged for consumption within your system, which was wheeled to you by others.
- 8. For line 7, **Wheeled Delivered (Out)**, enter the total amount of energy leaving your system that was transmitted through your system for delivery to other systems. If Wheeling Delivered is not precisely known, please estimate based on your system's known percentage of losses for wheeling transactions.
- 9. For line 8, Wheeled (Net), enter the difference between the amount of energy entering your system for transmission through your system and the amount of energy leaving your system (line 6 minus line 7). Wheeled net represents the energy losses on your system associated with the wheeling of energy for other systems.
- 10. For line 9, **Transmission by Others, Losses**, enter the amount of energy losses associated with the wheeling of electricity provided to your system by other utilities. Transmission by Others Losses should always be expressed as a negative value.
- 11. For line 11, **Sales to Ultimate Customers**, enter the amount of electricity sold to customers purchasing electricity for their own use and not for resale. This entry should correspond to the revenue from sales to ultimate customers reported on Schedule 3, line 1, and should be equal to the total megawatthours reported on Schedule 4, Parts A, B and D, when summed for all reported States.

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- 12. For line 12, Sales for Resale, enter the amount of electricity sold for resale purposes. This entry should include sales for resale to power marketers (reported separately in previous years), full and partial requirements customers, firm power customers and nonfirm customers. This entry should also correspond to the revenue from sales for resale reported in Schedule 3, line 3. Note: Please identify on Schedule 9, Comments, the portion of sales for resale power sold through tolling arrangements, and any international sales.
- 13. For line 13, Energy Furnished Without Charge, enter the amount of electricity furnished by the electric utility without charge, such as to a municipality under a franchise agreement or for public street and highway lighting. This entry does not include data entered in line 14.
- 14. For line 14, Energy Consumed by Respondent Without Charge, enter the amount of electricity used by the electric utility in its electric and other departments without charge. This entry does not include data entered in line 13.
- 15. For line 15, **Total Energy Losses**, enter the total amount of electricity lost from transmission, distribution, and/or unaccounted for. This is the difference between line 10, "Total Sources," and the sum of lines 11, 12, 13, and 14. Total Energy Losses should always be expressed as a positive value.

SCHEDULE 2. PART C. GREEN PRICING

Green Pricing programs allow electricity customers the opportunity to purchase electricity generated from renewable resources and to pay for renewable energy development. Renewable resources include solar, wind, geothermal, hydroelectric power, and wood.

These programs are voluntary. Retail Customers pay an additional fee to purchase electricity generated from renewable sources. In addition, Renewable Energy Certificates (RECs), also known as green certificates, green tags, or tradable renewable certificates representing the environmental attributes of power produced from renewable energy projects may be purchased and incorporated into Green Pricing Programs when available renewable generation is insufficient to cover the requirements of the program for energy delivered in the reporting year.

Line1: Report the Total Green Pricing Revenue for customers in each customer class. Revenue should be reported in thousands of dollars to the nearest tenth (for example, \$1,299 would be reported as 1.3 thousand dollars). Revenue should include revenue from the green pricing program plus the price of the electricity purchased.

Example: For 1000 kWh of electricity sales, if the normal price for electricity is \$0.10 per kWh:

- a) An entity sells Green Energy in blocks of \$5.50 per 100 kWh block: Total cost = $(1,000kWh \times \$0.10/kWh) + ((\$5.50/100kWh block) \times (10 blocks of$ 100 kWh))
 - = \$100.00 + \$55.00
 - = \$155.00
- b) Alternatively, an Entity which sells Green Energy for a premium of \$0.02 per kWh:

Total cost = $(1,000kWh \times \$0.10/kWh) + ((\$0.02/kWh) \times (1,000kWh))$

- = \$100.00 + \$20.00
- = \$120.00

Line 2: Report the Total Green Pricing Sales, the total amount of megawatthours purchased by customers for each green pricing customer class (for example, 1,299 kWh would be reported as 1 MWh).

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Line 3: Report the Total Green Pricing Customers, the number of customers who purchased green power for each customer class. The sales volumes and the number of customers should not exceed the values reported in Schedule 4, Parts A, B, or D.

Line 4: Report the revenue from RECs for each customer class in thousand of dollars to the nearest tenth. Enter only the amount associated with RECs as part of a Retail Green Pricing Program. This revenue must not exceed the Total Green Power Revenue reported in line 1 above.

Line 5: Report the sales from RECs in megawatthours for each customer class. This amount should not exceed the Total Green Pricing Sales reported in line 2 above,

The Total for each customer class will automatically sum for the electronic online e-file system.

SCHEDULE 2. PART D. NET METERING

Net Metering tariff arrangements permit a facility, typically generating electricity from a renewable resource, (using a meter that reads inflows and outflows of electricity) to sell any excess power it generates over its load requirement back to the electrical grid, typically at a rate equivalent to the retail price of electricity.

For net metering applications of 2 MW nameplate capacity or less, report the installed net metering capacity by State, customer class and technology. Report net metering data by sector and technology type for each state. Capacity should be reported in MW as AC load capable. Example: 8 kW should be 0.008 MW. Capacities should not exceed limits set up by each state. Please provide this capacity in MW, to the nearest 0.001 MW by technology. Do not report for net metering applications larger than 2 MW.

Report the number of net metering customers by customer class. They should not exceed the values in Schedule 4 Parts A and C. If you are unable to utilize the e-file system which creates the totals automatically; then provide the Totals for net metering megawatt hours, installed net metering capacity and customers by State, customer class and technology. Complete all lines for Schedule 2, Part D.

If the data is available, enter the amount of electric energy sold back to the utility **(MWh)** through the net metering application.

SCHEDULE 3. ELECTRIC OPERATING REVENUE

- 1. All electric operating revenue data should be rounded to the nearest tenth and reported in thousand dollars (for example, revenue of \$8,461,688.42 should be reported as 8,461.7 (thousand dollars).
- 2. For line 1, Electric Operating Revenue from Sales to Ultimate Customers, enter the amount of revenue from sales of electricity to those customers purchasing electricity for their own use and not for resale. Revenue reported on Schedule 4, Part C, for delivery service (and all other charges) should not be reported on Schedule 3, line 1, but should be reported in Schedule 3, line 2, Revenue from Unbundled (Delivery) Customers. This entry is gross revenue and includes the revenue from State and local income taxes, energy or demand charges, customer service charges, environmental surcharges, franchise fees, fuel adjustments and other miscellaneous charges applied to end-use customers during normal billing operations. This entry should not include deferred

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charges, credits, or other adjustments, such as fuel or revenue from purchased power, from previous reporting periods which are included in Schedule 3, line 4, **Electric Credits/Other Adjustments**. This entry should correspond to electricity sales reported in Schedule 2, Part B, line 11. (This entry should also be the same total revenue reported on Schedule 4, column e, Parts A and B, when summed for all reported States). This entry should include all unbilled revenue resulting from power sold during the reporting period.

- 3. For line 2, Revenue from Unbundled (Delivery) Customers, enter the amount of revenue from unbundled customers who purchase their electricity from a supplier other than the electric utility that distributes power to their premises. This electric operating revenue does not include the charges for electric energy but does include the revenue required to cover power delivery.
- 4. For line 3, **Electric Operating Revenue from Sales for Resale**, enter the amount of revenue from sales of electricity sold for resale purposes. This entry should include revenue from sales for resale to wholesale or retail power marketers, full and partial requirements customers (firm) and to nonrequirements (nonfirm) customers. This entry should also correspond to the sales for resale reported in Schedule 2, Part B, line 12.
- 5. For line 4, Electric Credits/Other Adjustments, enter the amount of deferred revenue, which corresponds to Account 449.1 of the Uniform System of Accounts including revenue not applied to end-use or resale customers during the normal billing cycle. Funds included in this entry consist of refunds to customers resulting from rate commission rulings delayed beyond the reporting year in which the funds were originally collected. Also, include revenue distributions to customers from rate stabilization funds where the distribution occurred during the current reporting year but the funds were collected during previous reporting years.
- 6. For line 5, **Revenue from Transmission**, enter the amount of revenue derived from the transmission of electricity for others (wheeling).
- 7. For line 6, Other Electric Operating Revenue, enter the amount of revenue received from electric activities other than selling electricity. This may include revenue from selling or servicing electric appliances, revenue from the sale of water and water power for irrigation, domestic, industrial or hydroelectric operations, revenue from electric plants leased to others, revenue from the sale of steam, but not including sales made by a steam heating department or transfers of steam under joint facility operations, revenue from interdepartmental rents or sale of electric property, revenue from late fees, penalties or reconnections, and revenue from interest.

SCHEDULE 4. PART A. SALES TO ULTIMATE CUSTOMERS. FULL SERVICE – ENERGY AND DELIVERY SERVICE (BUNDLED)

Please note that data for the Transportation Sector (see definitions) has replaced the "Other" Sector on all parts of Schedule 4. Non-Transportation customers previously reported under "Other," including street and highway lighting, should now be included in the Commercial Sector. Irrigation customers should be reported in the Industrial Sector.

Enter the reporting year revenue (thousand dollars, to the nearest tenth), megawatthours, and number of customers for sales of electricity to ultimate customers by State and customer class category for whom your company provides both energy and delivery service. Power marketers providing both energy and delivery service should report on Part D. Note: For sales to customer groups using brokers or aggregators, continue to count each customer separately. For instance, count a group of franchised commercial establishments aggregated through a single broker as separate customers (as reported in prior years). Enter the 2-letter U.S. Postal Service abbreviation for the State in which the electric sales occurred.

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SCHEDULE 4. PART B. SALES TO ULTIMATE CUSTOMERS. ENERGY – ONLY SERVICE (WITHOUT DELIVERY SERVICE)

Enter the reporting year revenue (thousand dollars, to the nearest tenth), megawatthours, and number of customers for sales of electricity to ultimate customers by State and customer class category for whom your company provides only the energy consumed, where another electric utility provides delivery services, including, for example, billing, administrative support, and line maintenance.

SCHEDULE 4. PART C. SALES TO ULTIMATE CUSTOMERS. DELIVERY – ONLY SERVICE (AND ALL OTHER CHARGES)

Enter the reporting year revenue (thousand dollars, to the nearest tenth), megawatthours delivered, and number of customers for sales of electricity to ultimate customers in your service territory by State and customer class category for whom your company provides only billing and related energy delivery services, where another company supplies the energy.

SCHEDULE 4. PART D. SALES TO ULTIMATE CUSTOMERS. BUNDLED SERVICE BY RETAIL ENERGY PROVIDERS, OR ANY POWER MARKETER THAT PROVIDES "BUNDLED SERVICE"

Note: typically, the only entities that report on Schedule D are Texas Retail Energy Providers. Any other entity that believes it should report on Schedule D should first contact EIA.

Enter the reporting period revenue (thousand dollars, to the nearest tenth), megawatthours, and number of customers for sales of electricity to ultimate customers by State and customer class category for whom your company provided both energy and delivery service. For public street and highway lighting, count all poles in a community as one customer. Note: For sales to customer groups using brokers or aggregators, continue to count each customer separately. For instance, count a group of franchised commercial establishments aggregated through a single broker as separate customers (as reported in prior years). Enter the two-letter U.S. Postal Service abbreviation (if not preprinted) for the State in which the electric sales occur. (Note: Texas Retail Energy Providers (REPs) should include delivery revenues.)

Common Instructions: SCHEDULE 4. PARTS A, B, C, AND D

- For column a, Residential, enter the revenue, megawatthours, and number of customers for electric energy supplied for residential (household) purposes. For the residential class, do not duplicate the customer accounts due to multiple metering for special services (e.g., water heating, etc.).
- 2. For column b, **Commercial**, enter the revenue, megawatthours, and number of customers for electric energy supplied for commercial purposes.
- 3. For column c, **Industrial**, enter the revenue, megawatthours, and number of customers for electric energy supplied for industrial purposes.

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4. For column d, **Transportation**, enter the revenue, megawatthours, and number of customers for electric energy supplied for transportation purposes.

SCHEDULE 5. MERGERS AND/OR ACQUISITIONS

If a merger or acquisition has occurred during the reporting period, report those newly-acquired corporate entities whose operations are now included in this report.

SCHEDULE 6. DEMAND-SIDE MANAGEMENT INFORMATION

Demand-side management (DSM) programs are designed to modify patterns of electricity usage, including the timing and level of electricity demand. SCHEDULE 6 is divided into four parts: Part A, Actual Effects, Part B, Annual Costs, Part C, Supplemental Information and Part D, Advanced Metering. SCHEDULE 6 is to be completed by DSM program managers (entities responsible for conducting or administering a DSM program). In previous years, companies with sales to ultimate customers or sales for resale which were less than 150,000 megawatthours were required to complete only the INCREMENTAL EFFECTS portion of Part A and annual cost to achieve in Part B, line 13, Total Cost. For this reporting year and forward, all companies including those non-utility DSM Program Managers are required to complete the entire schedule.

The DSM information provided should: 1) reflect only activities that are undertaken specifically in response to company-administered programs, including activities implemented by third parties under contract to the company; 2) account for the complete range of DSM programs, including energy efficiency and load management; and 3) represent the energy and load effects at the customer meter (i.e., transmission and distribution or reserve requirement savings should be excluded). The DSM information should exclude, to the extent possible, energy and load effects that are not attributable to DSM program activities.

Non-program related effects include changes in energy and load attributable to: 1) non-participants (e.g., customers known as free-riders, who would adopt program-recommended actions even without the program); 2) government-mandated energy-efficiency standards that legislate improvements in building and appliance energy usage; 3) natural operations of the marketplace (e.g., reductions in customer energy usage due to higher prices); and 4) weather and business-cycle fluctuations.

Power supply cooperatives, municipal joint action agencies, and Federal Power Marketing Administrations should coordinate the reporting of DSM information with their power purchasing utilities to avoid double counting the effects and costs of DSM programs. Utilities that have their DSM activities reported on Schedule 6 of another company should name that company in the space provided on line 2 of the schedule and proceed to Schedule 6, Part D.

SCHEDULE 6. PART A. ACTUAL EFFECTS

This part of the Schedule collects information on the energy and load effects of DSM programs implemented, and measures installed, for each program category by major customer sector within a State. It is divided into two subparts, **Incremental Effects** and **Annual Effects**.

1. Incremental Effects: The changes in energy use (measured in megawatthours) and peak load (measured in megawatts) caused in the current reporting year by new participants in existing DSM programs and all participants in your new DSM programs (that is programs begun during the current reporting year). Reported Incremental Effects should be annualized.

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Please leave blanks, not zeros, if the questions do not apply. For example, your company operates industrial programs but does not expect any incremental effects in the current reporting year, the field would have a value of zero. However, if your company does not operate any industrial programs, then the field should be left blank.

- 2. Annual Effects: The total changes in energy use (measured in megawatthours) and peak load (measured in megawatts) caused in the current reporting year by all participants in all of your DSM programs. This includes new and existing participants in existing programs (those implemented prior to the current reporting year that were in place during prior reporting year), all participants in new programs (those implemented during current reporting year), and participants in programs terminated since 1992 (those effects continue even though the programs have been discontinued). DSM programs have a useful life, and the net effects of these programs will diminish over time. To the extent possible, the Annual Effects should consider the useful life of efficiency and load control measures by accounting for building demolition, equipment degradation, and program attrition. The effects of new participants in existing programs and all participants in new programs should be based on their start-up dates (i.e., if participants enter a program in July, only the effects from July to December are to be reported). If start-up dates are unknown and cannot be reasonably estimated, the effects can be annualized (i.e., assume the participants were initiated into the program on January 1). Please note that Annual Effects are not a summation of 12 monthly peaks, but are the total DSM program effects of all programs and all participants for the current reporting year.
- 3. For Part A, under the appropriate customer sector: Residential, Commercial, Industrial, and Transportation, enter the aggregate Energy Effects (megawatthours, to one decimal point, if possible) and Actual Peak Reduction (megawatts to one decimal point, if possible) attributable to Energy Efficiency and Load Management programs. For Load Management also enter the Potential Peak Reduction (megawatts to one decimal point, if possible) attributable to each customer sector. Please leave blanks, not zeros, if the questions do not apply. For example, your company operates industrial programs but does not expect any incremental effects in the current reporting year, the field would have a value of zero. However, if your company does not operate any industrial programs, then the field should be left blank.

SCHEDULE 6. PART B. ANNUAL COSTS

This part of the schedule collects information on actual DSM program costs in the current reporting year. Program costs consist of the cash expenditures, reported in thousands of dollars, incurred by the company. Costs should reflect the total cash expenditures for the year, reported in thousands of dollars that flow out to support DSM programs. They should be reported in the year they are incurred, regardless of when the actual effects occurred. For example, the cash expenditures to purchase 1,000 load control devices for installation in customers' homes could be incurred a year in advance of the actual load savings that result from operation of the devices.

Annual Costs: For each State enter for each sector your actual Direct Costs, Incentive Payments, and Indirect Costs, incurred in the current reporting year. Direct Costs are those costs that are directly attributable to a particular DSM program (e.g., Energy Efficiency or Load Management).

Incentives are the total financial value provided to a customer for program participation, whether cash payment, in-kind services (e.g. design work), or other benefits directly provided customer for their program participation.

Indirect Costs may include other costs that have not been included in any program category, but could be meaningfully identified with operating the company's DSM programs (e.g., Administrative, Marketing, Monitoring & Evaluation, Company-Earned Incentives, Other).

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Report Energy Efficiency and Load Management Costs separately. The Total Cost row, line 13 and the Total column (e) will be summed automatically for respondents that file electronically through the e-file system. Provide the actual costs breakdown in thousand dollars.

SCHEDULE 6. PART C. SUPPLEMENTAL INFORMATION

- 1. Please indicate, by checking "Yes" or "No" on line 14, whether DSM program changes, tracking procedures, evaluations, or reporting methods have affected the data reported on this schedule (since 1992).
- 2. Please indicate, by checking "Yes" or "No" on line 15, whether your company currently operates any incentive-based demand response programs, i.e., direct load control, interruptible programs, demand bidding/buyback, emergency demand response, capacity market programs, and ancillary service market programs. If the answer is "Yes," enter the number of participating customers, by state and class, on line 16.
- 3. Please indicate, by checking "Yes" or "No" on line 17, whether your company currently operates any time-based rate programs, e.g., real-time pricing, critical peak pricing, variable peak pricing and time-of-use rates administered through a tariff. If the answer is "Yes," enter the number of participating customers, by state and class, on line 18.

SCHEDULE 6. PART D. ADVANCED METERING

This schedule should only include customers from Schedule 4 Part A or Part C.

Standard (Electric) Meters are electromechanical or solid state meters measuring aggregated kWh where data are manually retrieved over monthly billing cycles for billing purposes only. Standard meters may also include functions to measure time-of-use and/or demand with data manually retrieved over monthly billing cycles.

Automated Meter Reading (AMR): Meters that collect data for billing purposes only and transmit this data **one way**, usually from the customer to the distribution utility. Aggregated monthly kWh data captured on these meters may be retrieved by a variety of methods including drive-by vans with short-distance remote reading capabilities and communication over a fixed network such as a cellular network.

Enter the state and report the total number of AMR meters by sector. The number of AMR meters may be equal to but not exceed the number of customers on Schedule 4.

Advanced Metering Infrastructure (AMI): Meters that measure and record usage data at a minimum, in hourly intervals, and provide usage data to both consumers and energy companies at least once daily. Data are used for billing and other purposes. Advanced meters include basic hourly interval meters and extend to real-time meters with built-in two-way communication capable of recording and transmitting instantaneous data.

Enter the state and report the total number of AMI meters by sector.

For AMI meters that are only being used as AMR, report meters as AMR.

Energy Served Through AMI (MWh) should be entered in megawatthours for customers served.

SCHEDULE 7. DISTRIBUTED AND DISPERSED GENERATION

This schedule collects information from distribution companies on industrial and commercial

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generators of less than 1 megawatt (1000 kilowatts) installed at or near a customer's site, or other sites within the system. Provide all of the requested information for grid connected/synchronized distributed generators in column a, and for dispersed generators that are not grid connected/synchronized in column b. Also provide the data on all industrial and commercial dispersed generators in the Total column. Provide actual data if available, otherwise provide best estimates, and indicate the nature of the data by checking the appropriate box on the form.

Schedule 7 is intended to collect information about generators on the systems that are NOT reported on Form EIA-860, "Annual Electric Generator Report." Plants with capacity of 1 MW or greater which ARE grid-connected, meet the threshold criteria for reporting on the 860 and as such, **need not** be reported on Schedule 7 of the EIA-861. Residential applications should not be reported.

SCHEDULE 7. PART A. NUMBER AND CAPACITY

- 1. For line 1, Number of generators, provide in column (a), the number of distributed generators in the area served by your distribution system. (Less than 1 megawatt) In column (b), provide the number of dispersed generators. (Total and less than 1 megawatt) If you are unable to provide the breakout, please explain in Schedule 9, Comments. The total number of dispersed generators must be greater than or equal to the number of dispersed generators less than 1 MW.
- 2. For line 2, Total combined capacity, columns (a) and (b), provide the nameplate capacity (to the nearest tenth) for all generators with less than 1 megawatt that reported on line 1. For column (b), also provide the sum of the capacity for all generators. The total capacity must be greater than or equal to the capacity less than 1 MW.
- **3.** For line 3, columns (a) and (b), capacity that consists of **backup-only units**, provide the total nameplate capacity of generators that are used **only** for emergency backup service.
- 4. For Line 4, columns (a) and (b), capacity owned by respondent, provide the total nameplate capacity listed in line 2 that the respondent owns.
- 5. For Line 5, columns (a) and (b), Nature of data reported, provide actual data if available, otherwise provide best estimates, and indicate the nature of the data by checking the appropriate box on the form.
- 6. For Line 6, columns (a) and (b), State, provide the 2-letter U.S. Postal Service abbreviation for the State in which the generators are located.

SCHEDULE 7. PART B, CAPACITY BY GENERATING TYPE AND TECHNOLOGY

For each of the technologies listed in columns (a) and (b), lines 1 through 8, provide the capacity. The total of lines 1 through 8 (line 9) should equal the total combined capacity in line 2 in each column, (a, < 1MW) and (b - Total).

SCHEDULE 8. DISTRIBUTION SYSTEM INFORMATION

Please verify the EIA provided names of the counties, parishes, etc. (dropdown menu), by State, where your utility-owned distribution system's electrical equipment are located. The information may have been reported by the respondent last year or the result of independent research by the EIA staff processing the Form EIA-861. If the information is incorrect, please provide the correct information in Schedule 9.

SCHEDULE 9. COMMENTS

This schedule provides additional space for comments. For clarification purposes, identify schedule, part, line number and column (if applicable) for each comment.

U.S. Department of Energy U.S. Energy Information Administration Form EIA-861 (2011)		ANNUAL ELECTRIC POWER INDUSTRY REPORT INSTRUCTIONS	Form Approved OMB No. 1905-0129 Approval Expires: 12/31/2013 Burden: 9.0 hrs			
GLOSSARY		The glossary for this form is available online at the following URL: http://www.eia.gov/glossary/index.html The timely submission of Form EIA-861 by those required to report is mandatory under Se 13(b) of the Federal Energy Administration Act of 1974 (FEAA) (Public Law 93-275), as amended. Failure to respond may result in a penalty of not more than \$2,750 per day for e civil violation, or a fine of not more than \$5,000 per day for each criminal violation. The government may bring a civil action to prohibit reporting violations, which may result in a temporary restraining order or a preliminary or permanent injunction without bond. In such action, the court may also issue mandatory injunctions commanding any person to comply these reporting requirements. Title 18 U.S.C. 1001 makes it a criminal offense for any person knowingly and willingly to make to any Agency or Department of the United States any false, fictitious, or fraudulent statements as to any matter within its jurisdiction.				
SANCTIONS	13(b) of the Federa amended. Failure to civil violation, or a figovernment may be temporary restraining action, the court may these reporting requerson knowingly					
REPORTING BURDEN	response, including gathering and main information. Send collection of information Administry. Forrestal Bui Regulatory Affairs,	g the time for reviewing instructions, so taining the data needed, and complet comments regarding this burden estitation, including suggestions for reduct stration, Statistics and Methods Grout Iding, Washington, D.C. 20585-0670 Office of Management and Budget, N	eting and reviewing the collection of mate or any other aspect of this			
PROVISIONS REGARDING CONFIDENTIALITY OF INFORMATION	Information reported on Form EIA-861 will be treated as non-sensitive and may be publicly released in identifiable form. In addition to the use of the information by EIA for statistical purposes, the information may be used for any nonstatistical purposes such as administrative, regulatory, law enforcement, or adjudicatory purposes.					

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NOTICE: This report is **mandatory** under the Federal Energy Administration Act of 1974 (Public Law 93-275). Failure to comply may result in criminal fines, civil penalties and other sanctions as provided by law. For further information concerning sanctions and data protections see the provisions on sanctions and the provisions concerning the confidentiality of information in the instructions. **Title 18 U.S.C. 1001 makes it a criminal offense for any person knowingly and willingly to make to any Agency or Department of the United States any false, fictitious, or fraudulent statements as to any matter within its jurisdiction.**

as to any matter within its jurisdiction.									
	SCHEDULE 1. IDENTIFICATION								
	Survey Contact								
First Name:	Last Name:								
Title:									
• ` `		ax:							
Email:									
	Supervisor of Contact Person	for Survey							
	Last Name:								
Title:									
		ax:							
Email:									
	Report For								
Entity Name:									
Entity ID:	Reportin	g Year:							
	Entity and Preparer Infor								
	Littly and Freparer inior	<u>illation</u>							
Legal Name of E	ntity:								
Current Address Business Office:	of Entity's Principal								
Preparer's Legal From Entity's Leg	Name (If Different								
(If Different From	of Preparer's Office Current Address of Business Office):								
Respondent	[] Federal	[] State							
Type	Political Subdivision	[] Municipal							
(check one)	Municipal Marketing Authority	[] Investor-Owned							
	[] Cooperative	Retail Power Marketer (or Energy							
	Independent Power Producer or	Service Provider)							
	Qualifying Facility	Wholesale Power Marketer							
	Transmission	[] Whereas I awar marketer							
For a	uestions or additional information about the Form EIA	L 861 contact the Survey Managers:							
4									
	n McDaniel	Stephen Scott							
	e: (202) 586-4280 I: karen.mcdaniel@eia.gov	Phone: (202) 586-5140 Email: stephen.scott@eia.gov							
Emai		a otopriorii.ooott@oid.gov							
	FAX Number: (202) 287-1 Email: EIA-861@eia.go								

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Entity	Name:		•				
Entity	ID:	Reporting Yea	ır:				
	S	CHEDULE 2, PART A. GENERAL INFO	RMATION				
LINE NO.							
	Regional North American Electric	[] TRE (ERCOT)	[] NPCC	[] SPP			
1	Reliability Corporation Region (not applicable for power marketers) (mark	[] FRCC	[] RFC	[] WECC			
	all that apply)	[] MRO	[] SERC				
		[] California ISO	[] New York ISO	[] ISO New England			
1a	Name of RTO or ISO	[] Electric Reliability Council of Texas	[] Southwest Power Pool	[] Other			
		[] PJM Interconnection	[] Midwest ISO				
2	(For EIA Use Only) Identify the North American Electric Reliability Corporation where you are physically located						
3	Enter Balancing Authority(s) Responsible for Your Oversight						
4	Did Your Company Operate Generating Plant(s)? (check one)	[] Yes [] No					
		[] Generation from company owned plant	[] Buying distribution systems				
	Identify the Activities Your Company Was	[] Transmission [] Buying transmission services on other	[] Wholesale power r	marketing			
5	Engaged in During the Year (check appropriate activities)	electrical systems	[] Retail power mark	[] Retail power marketing			
	appropriate activities)	[] Distribution using owned/leased electrical wires	other services suc	[] Combined Utility Services (electricity plus other services such as gas, water, etc. in addition to electric service)			
	Highest Hourly Electrical Peak System	Summer (MW)		,			
6	Demand District Alice Al	Winter (MW)	T				
	Did Your Company Operate Alternative- Fueled Vehicles During the Year?	[] Yes [] No					
7	Does Your Company Plan to Operate Such Vehicles During the Coming Year?	[] Yes [] No					
•	If "Yes", Please Provide Additional	Name:					
	Contact Information.	Title:					
		Telephone: () Fax: ()	Email address:				

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Entity	/ Name:					_						
Entity	/ ID:						Reportin	ng Year:				
			SCHED	UL	E 2. PART B.	ENER	GY SOUR	CES AND D	ISPOSI	ΓΙΟΝ		
LINE NO.	SOUR		ELECTRIC Wh)	ITY		LINE NO.	DISPOSITION OF ELECTRICITY (MWh)					
1	Net Generation		,			11	Sales to Ult	timate Custom	ers	(
2	Purchases from Electri	city Su	ppliers			12	Sales for Re	esale				
3	Exchanges Received (I					13	Energy Fur	nished Withou	t Charge			
4	Exchanges Delivered (0					14				Without Charge		
5	Exchanges (Net)					15	Total Energ	y Losses (pos	sitive num	ber)		
6	Wheeled Received (In)											
7	Wheeled Delivered (Ou	t)										
8	Wheeled (Net)											
9	Transmission by Others, Losses (negative number)											
10	10 Total Sources (sum of lines 1, 2, 5, 8, and 9)				16	Total Dispos	sition (sum of I	lines 11, 1	2, 13, 14, and, 15)			
					SCHEDULE	2, PAR	T C. GREE	EN PRICING	•			
	Pricing programs are volumare a category of Green Pr										e Enerç	gy Certificates
LINE NO.	STATE/TERRITORY:			RE	SIDENTIAL (a)			INDUSTR (c)	RIAL	TRANSPORTATION (d)		TOTAL (e)
1	Total Green Pricing (Thousand Dol		ue									
2	Total Green Pricing S	ales (N	IWh)									
3	Total Green Pricing (Custom	ners									
4	Revenue from I (Thousand Dol											
5	REC Sales (MWhs)											

U.S. E	U.S. Department of Energy U.S. Energy Information Administration Form EIA-861 (2011)		ANNUAL ELECT	RIC POWER INDU	STRY REPORT	Form Approved OMB No. 1905-0129 Approval Expires: 12/31/2013 Burden: 9.0 hrs		
Entity	y Name:		·					
Entity	y ID:			Reporti	ng Year:			
			SCHEDULE	2, PART D. NE	T METERING			
		ograms allow customers to sell ity and less, provide the informa				umption. For net met	ering applications of 2 MV	V
	ATE/TERRIT	ORY:		RESIDENTIAL (a)	COMMERCIAL (b)	INDUSTRIAL (c)	TRANSPORTATION (d)	TOTAL (e)
	Photovoltaic	If Available, Enter the Ele to the Utility (MWh)						
Pho		Installed Net Metering Cap	acity (MW)					
		_	Number of Net Metering Customers					
		If Available, Enter the Ele to the Utility (MWh)						
Win	nd	Installed Net Metering Cap						
		Number of Net Metering C	ustomers					
		If Available, Enter the Ele to the Utility (MWh)	ctric Energy Sold Back					
СНЕ	P/Cogen	Installed Net Metering Cap	acity (MW)					
		Number of Net Metering C	ustomers					
		If Available, Enter the Ele to the Utility (MWh)	ctric Energy Sold Back					
Oth	er	Installed Net Metering Cap	acity (MW)					
	Number of Net Metering C	ustomers						

Total Energy Sold Back to the Utility (MWh)

Installed Net Metering Capacity (MW)

Number of Net Metering Customers

Total

U.S.	Department of Energy
U.S.	Energy Information Administration
Forr	n EIA-861 (2011)

ANNUAL FLECTRIC POWER INDUSTRY

Form Approved OMB No. 1905-0129

	ergy Information Administration A-861 (2011)	REPORT	ZENINDOGTAT	Approval Expires: 12/31/2013 Burden: 9.0 hrs		
Entity	Name:					
Entity	ID:	Repo	orting Year:			
	5	SCHEDULE 3. ELECTRIC (PERATING REV	/ENUE		
LINE NO.	TYPE OF OPERATING	REVENUE	REVENUE (THO	USAND DOLLARS)		
1	Electric Operating Revenue From Sales to (Schedule 4, Parts A and B)	Ultimate Customers				
2	Revenue From Unbundled (Delivery) Custo	omers (Schedule 4, Part C)				
3	Electric Operating Revenue from Sales for	Resale				
4	Electric Credits/Other Adjustments					
5	Revenue from Transmission					
6	Other Electric Operating Revenue					
7	Total Electric Operating Revenue (sum of	lines 1, 2, 3, 4, 5 and 6)				

U.S. Department of Energy U.S. Energy Information Form EIA-861 (2011)	ration	ANNUAL ELECTRIC POWER INDUSTRY REPORT				Form Approved OMB No. 1905-0129 Approval Expires: 12/31/2013 Burden: 9.0 hrs			
Entity Name:									
Entity ID:				Repor	ting Year:				
SCHEDULE 4. PAR	T A. SA	LES TO ULTIM	ATE C	USTOMERS. FULL	SERVICE - EN	ERGY	AND DELIVERY SEI	RVICE (BUNDLED)	
		RESIDENTIA (a)	\L	COMMERCIAL (b)	INDUSTRIA (c)	L	TRANSPORTATION (d)	TOTAL (e)	
STATE / TERRITORY			, i						
Revenue (thousand dollar	rs)								
Megawatthours Sold and Delivered	d								
Number of Customers									
STATE / TERRITORY						,			
Revenue (thousand dollars	rs)								
Megawatthours Sold and Delivered	d								
Number of Customers									
STATE / TERRITORY									
Revenue (thousand dollar	rs)								
Megawatthours Sold and Delivered	d								
Number of Customers									
STATE / TERRITORY									
Revenue (thousand dollar	rs)								
Megawatthours Sold and	d								

Number of Customers

U.S. Department of Energy U.S. Energy Information Administration Form EIA-861 (2011)	tration	ANNUAL ELECTRIC POR		Form Approved OMB No. 1905-0129 Approval Expires: 12/31/2013 Burden: 9.0 hrs				
Entity Name:								
Entity ID:		Rep	orting Year:					
SCHEDULE 4. PART B.	SALES TO ULTII	MATE CUSTOMERS. ENERGY - ONLY SERVICE (WITHOUT DELIVERY SER)						
	RESIDENTIAL	COMMERCIAL	INDUSTRIAI		TOTAL			
	(a)	(b)	(c)	(d)	(e)			
STATE/TERRITORY								
Revenue (thousand dollars)								
Megawatthours Sold								
Number of Customers								
STATE/TERRITORY								
Revenue (thousand dollars)								
Megawatthours Sold								
Number of Customers								
STATE/TERRITORY								
Revenue (thousand dollars)								
Megawatthours Sold								
Number of Customers								
STATE/TERRITORY								
Revenue (thousand dollars)								
Megawatthours Sold								
Number of Customers								
STATE/TERRITORY								
Revenue (thousand dollars)								
Megawatthours Sold								

Number of Customers

U.S. Department of Energy Form Approved U.S. Energy Information Administration OMB No. 1905-0129 ANNUAL ELECTRIC POWER INDUSTRY Form EIA-861 (2011) Approval Expires: 12/31/2013 REPORT Burden: 9.0 hrs Entity Name:_____ Entity ID:____ Reporting Year:_____ SCHEDULE 4. PART C. SALES TO ULTIMATE CUSTOMERS. DELIVERY – ONLY SERVICE (AND ALL OTHER CHARGES) INDUSTRIAL TRANSPORTATION RESIDENTIAL COMMERCIAL TOTAL (a) (e) (b) (c) (d) STATE/TERRITORY Revenue (thousand dollars) **Megawatthours Delivered Number of Customers** STATE/TERRITORY **Revenue** (thousand dollars) **Megawatthours Delivered Number of Customers** STATE/TERRITORY Revenue (thousand dollars) **Megawatthours Delivered Number of Customers** STATE/TERRITORY Revenue (thousand dollars) **Megawatthours Delivered Number of Customers** STATE/TERRITORY Revenue (thousand dollars) **Megawatthours Delivered**

Number of Customers

U.S. Department of Energy U.S. Energy Information Adm Form EIA-861 (2011)	inistration	ANNUAL ELECTRIC POV REPORT	VER INDUSTRY	Form Approved OMB No. 1905-0129 Approval Expires: 12/31/2013 Burden: 9.0 hrs						
Entity Name:										
Entity ID:		Re	porting Year:							
SCHEDULE 4. PART D.	BUNDLED SERVI		CE BY RETAIL ENERGY PROVIDERS, OR ANY POWER MARKETER THAT PROVIDES							
		"BUNDLED S								
	RESIDENTIAL (a)	COMMERCIAL (b)	INDUSTRIAL (c)	TRANSPORTATION (d)	TOTAL (e)					
STATE/TERRITORY		·								
Revenue (thousand dollars)										
Megawatthours Sold and Delivered										
Number of Customers										
STATE/TERRITORY										
Revenue (thousand dollars)										
Megawatthours Sold and Delivered										
Number of Customers										
STATE/TERRITORY										
Revenue (thousand dollars)										
Megawatthours Sold and Delivered										
Number of Customers										
STATE/TERRITORY										
Revenue (thousand dollars)										
Megawatthours Sold and Delivered										
Number of Customers										

U.S. Department of Energy U.S. Energy Information Administration Form EIA-861 (2011)	ANNUAL ELE		POWER INDUSTRY PORT	Form Approved OMB No. 1905-0129 Approval Expires: 12/ Burden: 9.0 hrs	31/2013		
Entity Name:							
Entity ID:			Reporting Year:				
SC	HEDULE 5. MER	RGER	S AND/OR ACQUISIT	IONS			
Mergers and/or acquisitions during the re	eporting period:	Yes No	(If no, skip to Schedule 6)				
If Yes, Provide: Date of merger or acquisition Company merged with or acquired Name of new parent company			AddressNew contact nameEmail address	Tel	lephone No		

U.S. Department of Energy Form Approved **U.S. Energy Information Administration** OMB No. 1905-0129 Form EIA-861 (2011) ANNUAL ELECTRIC POWER INDUSTRY Approval Expires: 12/31/2013 REPORT Burden: 9.0 hrs Entity Name:_ Entity ID: Reporting Year: SCHEDULE 6. DEMAND-SIDE MANAGEMENT INFORMATION LINE NO. Do you have company administered Demand-Side Management Programs? (check Yes or No) 1 1 Yes 1 No If your Demand-Side Management activities are reported on Schedule 6 of another company's 2 form, identify the company. NOTE: If you answered "No," to Line 1 or another Company Reports your Demand-Side Management Activities on their Schedule 6, proceed to Schedule 6, Part D. SCHEDULE 6. PART A. ACTUAL EFFECTS ANNUALIZED INCREMENTAL EFFECTS **ACTUAL ANNUAL EFFECTS** RESIDENTIAL COMMERCIAL INDUSTRIAL TRANSPORTATION RESIDENTIAL COMMERCIAL INDUSTRIAL TRANSPORTATION Total Total (b) (c) (e) (f) (h) (j) (a) (d) (g) (i) STATE / **TERRITORY ENERGY EFFICIENCY Energy Effects** (MWh) 3 **Actual Peak** 4 Reduction (MW) LOAD **MANAGEMENT Energy Effects** 5 (MWh) **Potential Peak** 6 Reduction (MW) **Actual Peak** 7 Reduction (MW) [] Yes [] No Were these savings verified through an independent evaluation? 7b []Yes [] No 7c Are these savings estimates based on a forecast or on the report of one or more Independent evaluators?

U.S. Department of Energy U.S. Energy Information Administration							Form Ap	•			
	Energy Informat EIA-861 (2011)	ion Administration	ANNUAL ELECTRIC POWER Approval Expires: 1				31/2013				
1 01111	ZIA 001 (2011)			ANNUAL ELECTRIC POWER Approval Expires: 12/31/2013 INDUSTRY REPORT Burden: 9.0 hrs					7172010		
Entity	y Name:										
Entity	y ID:				Rep	orting Ye	ear:		_		
		SCHE	DULE 6. PAF	RT B. ANN	UAL COSTS (T	HOUSA	ND DOL	LARS)			
			RESIDEI		COMMERCIAL	IN	IDUSTRIAL	i i	ORTATION	TOTAL	
STAT	E/		(a)		(b)		(c)		(d)	(e)	
	RITORY								T		
8		excluding incentive Energy Efficiency									
9		excluding incentive Load Management									
		ayments – Energy									
10		fficiency Payments – Load									
11		nagement									
12	Indi	irect Costs									
13	Total Cost (su	m of all of the above)									
		S	CHEDULE 6.	PART C.	SUPPLEMENT	AL INFO	RMATIC	ON			
14	programs, or a s	n any major changes to yo shift to programs with dua ods that affect the compar o)	al load building	objectives an	d energy efficiency	objectives	s), program	tracking proce	dures, or	[]Yes]No]
		,								[] Yes	
15	load control, int	pany currently operate an erruptible programs, den programs)? (check Yes o	and bidding/buy							[]No	
		line 15 is "Yes", please d		ber of		Res	sidential	Commercial	Industrial	Transportation	
16	participating cu	stomers by state & class.			State:				<u> </u>		_
17		oany currently operate an s administered through a			e.g., real-time pricin	ıg, critical	peak pricii	ng, variable pea	k pricing and	[] Yes] No	[
		line 17 is "Yes", please d		ber of		Res	sidential	Commercial	Industrial	Transportation	
18	participating cu	stomers by state & class.			State:						

U.S. Department of Energy U.S. Energy Information Administration Form EIA-861 (2011)			JAL ELECTRIC POW REPORT	ER INDUSTRY	Form Approved OMB No. 1905-0129 Approval Expires: 12/31/2013 Burden: 9.0 hrs		
Entity Name:							
Entity ID:			Reportin	ıg Year:			
	SCHEE	DULE	6. PART D. ADV	NCED METER	ING		
Only customers from Schedule 4A and 4C nee AMI – data can be transmitted in both directio					ed one-way, from the custor	ner to the utility.	
State/ Territory	RESIDENTI (a)	IAL	COMMERCIAL (b)	INDUSTRIAL (c)	TRANSPORTATION (d)	TOTAL (e)	
Number of AMR Meters			` '	\ /		, ,	
Number of AMI Meters							
Energy Served Through AMI Meters (MWh)							
State/ Territory	RESIDENTIAL (a)		COMMERCIAL (b)	INDUSTRIAL (c)	TRANSPORTATION (d)	TOTAL (e)	
Number of AMR Meters	. ,		, ,	`,		` ,	
Number of AMI Meters							
Energy Served Through AMI Meters (MWh)							
State/ Territory	RESIDENTI (a)	IAL	COMMERCIAL (b)	INDUSTRIAL (c)	TRANSPORTATION (d)	TOTAL (e)	
Number of AMR Meters	` '		, ,	•		•	
Number of AMI Meters							
Energy Served Through AMI Meters (MWh)							

U.S. Department of Energy U.S. Energy Information Administration Form EIA-861 (2011)			A	ANNUAL ELECTRIC POWER INDUSTRY REPORT			Form Approved OMB No. 1905-0129 Approval Expires: 12/31/2013 Burden: 9.0 hrs				
Entity	y Name:										
Entity	/ ID:				Re	eporting Year:					
		HEDULE 7.	DIS	TRIBU	ΓED AN	ID DISPERSED GENE	RATION				
	company owns and/or operates a disity may be utility or customer-owned.	tribution syst	em, p	lease re	port info	rmation on known distrib	outed generation o	capacity on the	e system	. S	Such
		SCHEDU	JLE 7	7. PAR	T A. NU	JMBER AND CAPACI	ITY				
LINE NO.	DISTRIBUTED GENI (COMMERCIAL AND IND CONNECTED/SYNCHRONIZ (a)	USTRIAL GR	rors)		LINE NO.	(COMMERCIA	DISPERSED GENI AL AND INDUSTRI TED/SYNCHRONI (b)	AL GENERAT		Т	
				Total 1MW)					Total	(<	1MW)
1	Number of generators (N)		•	-	1	Number of generators ((N)				
1 Number of generators (N) 2 Total combined capacity (MW)					2	Total combined capacit	ty (MW)				
3 Capacity that consists of backup-only units				3	Capacity that consists	of backup-only un	its				
4 Capacity owned by respondent				4	Capacity owned by res	pondent					
5	Nature of data reported	Actual Estimated		[]	- 5	Nature of data reported		Actual Estimated		[]	
6					6	State/Territory					
	S	CHEDULE	7. PA	RT B.	CAPAC	ITY by TECHNOLOG	Y (MW)				
				Total 1MW)					Total	(<	1MW)
1	Internal combustion/reciprocating en	gines		•	1	Internal combustion/red	on/reciprocating engines				
2	Combustion turbine(s)				2	Combustion turbine(s)	ombustion turbine(s)				
3					3	Steam turbine(s)	Steam turbine(s)				
4					4	Hydroelectric					
5	5 Wind turbine(s)				5	Wind turbine(s)					
6 Photovoltaic					6	Photovoltaic					
7 Storage					7	Storage					
8 Other					8	Other					
9 Total				9	Total	Total					
10	Actual			[]	10	Nature of data reported		Actual Estimated		[] []	

U.S. Department of Energy U.S. Energy Information Administration Form EIA-861 (2011) Entity Name:						Form Approved OMB No. 1905-0129 Approval Expires: 12/31/2013 Burden: 9.0 hrs	
Entity	ID:				orting Year:		
	SCHEDULE 8. DISTRIBUTION SYSTEM INFORMATION If your company owns a distribution system, please identify the names of the counties (parish, etc.) by State in which the electric wire/equipment are located.						
LINE NO.	STATE/TERRITORY (U.S. POSTAL ABBREVIATION) (a)	(PARIS	JNTY H, ETC.) b)	LINE NO.	STATE/TERRITORY (U.S. POSTAL ABBREVIATION) (a)	COUNTY (PARISH, ETC.) (b)	
1				20			
2				21			
3				22			
4				23			
5				24			
6				25			
7				26			
8				27			
9				28			
10				29			
11				30			
12				31			
13				32			

U.S. Department of Energy U.S. Energy Information Administration Form EIA-861 (2011) Form Approved ANNUAL ELECTRIC POWER INDUSTRY OMB No. 1905-0129 Approval Expires: 12/31/2013 REPORT Burden: 9.0 hrs Entity Name:_____ Entity ID:_____ Reporting Year:_____ SCHEDULE 9. COMMENTS NOTE(S) SCHEDULE PART LINE NO. COLUMN (e) `´ (a) (b) (c) (d)



Subject: United States Department of Energy – EIA Annual Data Collection, Form EIA-923 (Annual)

Dear Respondent:

Project Manager, EIA-923

List of Plants:

Energy Information Administration United States Department of Energy

The Annual Form EIA-923, "Power Plant Operations Report," is now open for 2009 data collection. Your filing is due by April 5, 2010. The Form EIA-923 can be accessed through EIA's Single Sign On (SSO) website at:
https://signon.eia.doe.gov/ssoserver/login
Choose "EIA-923 Power Plant Operations Report - Annual" on the SSO screen.
Please verify the accuracy of the information we have on file for you.
Primary contact name: Email: SSO User ID: Telephone:
Please send us a return email at eia-923@eia.doe.gov to acknowledge receipt of this email and, if needed, to update the information in our records.
Our records show you are the primary contact to file the report for the plants listed below. Contact EIA immediately if this list is not complete and accurate.
For questions about the Form EIA-923, instructions, a copy of the form, and a list of contact people, please see:
http://www.eia.doe.gov/cneaf/electricity/2008forms/consolidate 923.html
Sincerely,
Channele Wirman



Subject: United States Department of Energy – EIA Monthly Data Collection, Form EIA-923 (Monthly)

Dear Respondent:

The monthly Form EIA-923, "Power Plant Operations Report," is now open for January 2010 data collection. Your filing of the Form EIA-923 for January 2010 is due by March 1, 2010.

Please note the data entry process for coal mine information on Schedule 2 Page 3 has been changed. For all coal purchases, a State or country of origin must be chosen first, and then a choice must be made for a mine by double clicking on the MSHA ID field. With your choice of mine, all fields will automatically be populated with the MSHA ID, Mine Name, Mine County and Mine Type.

The report can be accessed through EIA's Single Sign On website at:

https://signon.eia.doe.gov/ssoserver/login

For questions about using or accessing the Single Sign On system, please contact our Help Center at 202-586-9595 or CNEAFHelpCenter@eia.doe.gov. For questions about the Form EIA-923 and a list of contact people, please see:

http://www.eia.doe.gov/cneaf/electricity/2008forms/consolidate 923.html

Sincerely,

Channele Wirman Project Manager, EIA-923 Energy Information Administration United States Department of Energy Subject: United States Department of Energy - EIA Annual Data Collection, Form EIA-923 (Supplemental)

Dear Respondent:

The Supplemental Form EIA-923, "Power Plant Operations Report," is now open for 2009 data collection. The Supplemental Form EIA-923 is required for plants that reported Schedules 2 through 5 on the Monthly Form EIA-923 in 2009. The Supplemental form is comprised of the annual Schedules 6, 7 and 8, and completes the filing requirements for the 2009 data year for your power plant.

Your filing is due by April 5, 2010. The Form EIA-923 can be accessed through EIA's Single Sign-On website at:

https://signon.eia.doe.gov/ssoserver/login

Choose "EIA-923 Power Plant Operations Report - Supplementary" on the SSO screen.

Please verify the accuracy of the information we have on file for you:

Primary contact name:

Email:

SSO User ID:

Telephone:

Please send us a return email at eia-923@eia.doe.gov to acknowledge receipt of this email and, if needed, to update the information in our records.

Our records show you are the primary contact to file the report for the plants listed below. Contact EIA immediately if this list is not complete and accurate.

For questions about the Form EIA-923, instructions, a copy of the form, and a list of contact people, please see:

http://www.eia.doe.gov/cneaf/electricity/2008forms/consolidate 923.html

Sincerely,

Channele Wirman Project Manager, EIA-923 Energy Information Administration United States Department of Energy

List of Plants:

POWER PLANT OPERATIONS REPORT INSTRUCTIONS

Form Approval OMB No. 1905-0129

Approval Expires: 12/31/2013

Burden: 2.8 Hours

PURPOSE

Form EIA-923 collects information from electric power plants and combined heat and power (CHP) plants in the United States (see Required Respondents immediately below). Data collected on this form include electric power generation, fuel consumption, fossil fuel stocks, delivered fossil fuel cost, combustion byproducts, operational cooling water data, and operational data for NO_x, SO₂, and particulate matter control equipment. These data are used to monitor the status and trends of the electric power industry and appear in many U.S. Energy Information Administration (EIA) publications including: *Electric Power Monthly, Electric Power Annual, Monthly Energy Review, Annual Energy Review, Natural Gas Monthly, Natural Gas Annual, Cost and Quality of Fuels, Quarterly Coal Report,* and the *Renewable Energy Annual.* Further information can be found at http://www.eia.gov/fuelelectric.html. The "Stocks at End of Reporting Period" information (SCHEDULE 4), Nonutility "Total Delivered Cost" information (SCHEDULE 2), and "Commodity Cost" information (SCHEDULE 2) reported on this form are protected information.

REQUIRED RESPONDENTS

The Form EIA-923 is a mandatory report for all electric power plants and CHP plants that meet the following criteria: 1) have a total generator nameplate capacity (sum for generators at a single site) of 1 megawatt (MW) or greater; and 2) where the generator(s), or the facility in which the generator(s) resides, is connected to the local or regional electric power grid and has the ability to draw power from the grid or deliver power to the grid. To lessen the reporting burden, a sample of plants is collected on a monthly basis. Plants that are not selected to respond monthly must respond annually for the calendar year. Facilities that do not generate electricity but serve either as a transfer terminal or offsite storage facility for fossil fuel stocks for generating stations may be required to report on the Form EIA-923.

See instructions for each schedule for more specific filing requirements.

RESPONSE DUE DATE

Monthly respondents are required to file SCHEDULE 1 through SCHEDULE 5 and SCHEDULE 9 of this form with EIA by the last day of the month following the reporting period. For example, if reporting for July, survey data are due on August 31.

Supplemental responses (monthly respondent's filings of Schedule 6 through Schedule 8) must be filed no later than 45 days after the form opens for data entry – typically around March 31 following the end of the reporting year.

Annual respondents are required to file the form approximately 45 calendar days after the form opens for data entry – typically around March 31 following the end of the reporting year. (Schedules 3A, 5A, and 8D require monthly level data for the calendar year. All other schedules collect aggregated annual data for the calendar year.)

See instructions for each schedule for more specific filing requirements.

METHODS OF FILING RESPONSE

Submit your data electronically using EIA's secure e-file system. This system uses security protocols to protect information against unauthorized access during transmission.

If you have not registered with the e-file Single Sign-On (SSO) system, send an email requesting assistance to: EIA-923@eia.gov.

If you have registered with SSO, log on at: https://signon.eia.gov/ssoserver/login

If you are having a technical problem with logging into or using the e-file system, contact the Help Desk at:

Email: CNEAFhelpcenter@eia.gov or Phone: 202-586-9595

If you need an alternate means of filing your response, contact the Help Desk. Retain a completed copy of this form for your files.

POWER PLANT OPERATIONS REPORT INSTRUCTIONS

Form Approval OMB No. 1905-0129

Approval Expires: 12/31/2013

Burden: 2.8 Hours

CONTACTS

E-file System Questions: For questions related to the e-file system, see the help contact information immediately above.

Data Questions: For questions about the data requested on the Form EIA-923, contact:

Schedules 1 & 4: Chris Cassar christopher.cassar@eia.gov 202-586-5448
Schedule 2: Rebecca Peterson rebecca.peterson@eia.gov 202-586-4509
Schedules 3 & 5: Ron Hankey ronald.hankey@eia.gov 202-586-2630
Schedules 6, 7, & 8: Channele Wirman channele.wirman@eia.gov 202-586-5356

EIA-923 Fax: 202-287-1959 or 202-287-1960

EIA-923 Mailbox: <u>EIA-923@eia.gov</u>

GENERAL INSTRUCTIONS

Revision Policy: Submit revisions to data previously reported as soon as possible after the error or omission is discovered. Do not wait to revise data until the next reporting month's form is due. Revisions or adjustments to data should be made only to the survey month(s) to which they pertain. (Do not adjust the current month to reflect a revision or adjustment to a prior month submission.)

- Log on to the e-file system, re-key revised data, indicate in SCHEDULE 9 the nature and date of the revision, and resubmit the data.
- Remember to save and RESUBMIT (click on the SUBMIT button).

If you are unable to make a revision through the e-file system because the monthly data file has been closed, please email your changes to EIA-923@eia.gov, and indicate 'Revision' in subject line. Be sure to include your Plant ID, the specific revision, and the month that is being revised.

Correcting prepopulated information: For e-file users, much of the information on the form is prepopulated by EIA. Verify the administrative information and make corrections to the contact name, phone numbers, addresses, or email addresses. Please note that PLANT NAME, PLANT CODE, and COMPANY NAME cannot be changed. Contact the survey manager if these items are incorrect.

Correcting errors: For e-file users, data that fail our edits will be amassed into an edit log. Upon hitting the "Submit" button, the system will notify you if there are failed edits in the log. You will be directed to the log and given the opportunity to either revise the data in question or override it. When an edit is overridden, the system will ask for a comment/explanation. Each explanation is reviewed by EIA and, if it does not sufficiently explain the anomaly, you will be contacted for a more detailed clarification.

Revising data: If you report via facsimile or email, you may send a corrected copy of the form, but be sure to indicate in SCHEDULE 9: (1) that it is a revision, (2) the month that is being revised, (3) what has been revised, and (4) the date of the revision. If you report via the e-file system, send an email to the survey manager indicating the 4 items listed above.

Schedule 9 is provided for respondents to provide comments. Use it to explain anomalies with data or to provide any further details that are pertinent to the data and plant.

POWER PLANT OPERATIONS REPORT INSTRUCTIONS

Form Approval
OMB No. 1905-0129
Approval Expires: 12/31/2013

Burden: 2.8 Hours

ITEM-BY-ITEM INSTRUCTIONS

SCHEDULE 1. IDENTIFICATION

- Survey Contact: Verify contact name, title, address, telephone number, fax number, and email address.
- 2. **Supervisor of Contact Person for Survey:** Verify the contact's supervisor's name, title, address telephone number, Fax number and email address. The Survey Contact and Supervisor cannot be the same person.

If any of the above information is incorrect, revise the incorrect entry and provide the correct information. Provide any missing information.

- 3. **Report For:** Verify all information, including company name, plant name, plant identification number, plant State and county, and month or year for which data are being reported. State codes are two-character U.S. Postal Service abbreviations. These fields cannot be revised online. Contact the EIA-923 survey manager if corrections are needed.
- 4. **Regulatory Status:** Verify that the check correctly identifies your plant as either regulated or unregulated. Contact the EIA-923 survey manager if a correction is needed.
- 5. **CHP Checkbox:** Verify that the check correctly indicates whether or not this facility is a combined heat and power plant, regardless of its utility/nonutility status. Contact the EIA-923 survey manager if a correction is needed.
- 6. CHP Plant Efficiency: If the CHP checkbox is "YES", enter the efficiency of the combined heat and power plant. To calculate the total plant efficiency, divide the sum of the energy outputs (in British thermal units (Btu)), including net generation and useful thermal output by the sum of the energy inputs (fuels converted to Btu). Report the annual average total CHP plant efficiency.

SCHEDULE 2. COST AND QUALITY OF FUEL PURCHASES - PLANT-LEVEL

REQUIRED RESPONDENTS: Plants with a total nameplate capacity of 50 MW and above that use fossil fuels (coal, petroleum products, petroleum coke, natural gas, and other gases, including blast furnace gas) for the generation of electric power or the combined production of electric power and useful thermal output must complete the appropriate data on Schedule 2, Cost and Quality of Fuel Receipts.

All fuel purchases should be reported at the plant level. However, for fuel received at transfer terminals or storage facilities that CANNOT be allocated to individual plants or vendor information for cost and quality of the fuel at a terminal is not available to the plant, the terminal or storage facility must report the fuel purchases, including cost and quality data. Terminals and storage facilities must list the plants where the fuel will be utilized on Schedule 9, Comments.

In order to avoid duplicate data, report purchases at **either** the storage site **or** at the plant, but not both. Purchases reported by a storage site and then transferred to the plant should not be reported at the plant level. Instead, designate such transfers in Schedule 4 as a negative adjustment to stocks at the storage site and a positive adjustment to stocks at the plant, including appropriate comments.

ANNUAL RESPONDENTS: Report Schedule 2 by aggregating receipts for the entire year in the manner specified in the instructions for Schedule 2, Page 1 below.

Plant Name, Plant ID, State, Reporting Month and Year: For e-file users, verify the prepopulated information for these items at the top of this (and all) page(s).

If no fuel was purchased during the reporting period, place a check in the "No Receipts" box, and go to Schedule 3.

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If this plant has a tolling agreement and the toller will not divulge the cost of the fuel, you may leave both the commodity and delivered prices blank. Report all other data. Be sure to indicate that there is a tolling agreement currently in place by entering a check in the box at the center of the page. For e-file users, this check will carry over into subsequent months. If the agreement expires, contact the survey manager to have the check removed.

SCHEDULE 2. PAGE 1. CONTRACT INFORMATION, RECEIPTS, AND COSTS.

1. Fuel Supplier Name:

Coal Purchases: Report data by supplier and mine source. (Purchased coal or petroleum coke which will be converted to synthesis gas should be reported as it is received, i.e. as coal or petroleum coke.)

Monthly Respondents: Coal received from spot-market purchases and from contract purchases must be reported separately. Data on coal received under each purchase order or contract from the same supplier must be reported separately. Coal purchases can be aggregated when supplier, purchase type, contract date, coal rank, transportation mode, costs, fuel quality, and all mine information are identical. If coal received under a purchase order or contract originates in more than one State/county/mine and the mines are known as well as the amount received from each mine, split the amount received accordingly between the number of different mines and report identical quality and prices (unless the actual quality and prices are known). Mine information is reported on Page 3 of Schedule 2. If the mine or group of mines is not available on the list of mines provided for data entry on the e-filing system, contact EIA immediately (see contacts on Page 1 of the form or instructions). EIA will add appropriate choices for purchases from multiple sources to the drop down list.

Annual Respondents: Coal received from spot market purchases and from contract purchases must be reported separately. Aggregation of coal shipments is allowed ONLY IF shipments are identical in purchase type, coal rank, mine name, mine type, Mine Safety and Health Administration (MSHA) ID, State of origin, county of origin, and supplier. For aggregated purchases, report the weighted average cost and quality of the fuel. If the mine or group of mines is not available on the list of mines provided for data entry on the e-filing system, contact EIA immediately (see contacts on Page 1 of the form or instructions).

Petroleum Purchases: Report data by fuel type, supplier or broker, or refinery and, if applicable, port of entry.

<u>Monthly Respondents</u>: Oil received from spot-market purchases and from contract purchases must be reported separately. Report individual shipments as separate line items.

<u>Annual Respondents:</u> Oil received from spot-market purchases and from contract purchases must be reported separately. Aggregation for the entire year is allowed by fuel type and supplier. If aggregated, report the weighted average cost and quality of the fuel.

Gas Purchases (monthly and annual respondents): Report data by fuel type and supplier. Aggregation of gas deliveries from various suppliers is allowed only if 1) the deliveries are spot purchases, 2) the type of gas is the same (either NG, OG, or PG), and 3) the transportation contracts are identical (either firm or interruptible). For aggregated deliveries, report the pipeline or distributor in the supplier column and the weighted average cost and quality of the fuel. Contract purchases must be reported as separate line items and should never be aggregated. For gas produced by the plant (e.g., BFG), list the suppler as "self-produced," which is one of the choices in the drop-down list of suppliers. Do not report land fill gas (LFG) in the category of other gases (OG) on Schedule 2 because LFG is not a fossil fuel. Do not report gas injected into storage. Report it when it is delivered to the plant. Do not report any costs associated with storage.

2. Contract Type: Use the following codes for coal, petroleum and natural gas purchases:

C – Contract Purchase – Fuel received under a purchase order or contract with a term of one year or longer. Contracts with a shorter term are considered spot purchases. (See below.)

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NC – New Contract or Renegotiated Contract Purchase – Fuel received under a purchase order or contract with duration of one year or longer, under which deliveries were first made during the reporting month.

- **S Spot-Market Purchase –** Fuel received under a purchase order or contract with duration of **less than one year.**
- 3. **Contract Expiration Date:** Enter the month and the year the purchase order or contract expires. For example, report "1112" for a November "2012" expiration date. This column should be left blank if **Contract Type** contains an "S" for spot-market purchase.

Purchases

- 4. **Energy Source:** Identify purchased fossil fuels (including start-up and flame stabilization fuel) using the energy source codes listed in Table 8 for coal, petroleum products, petroleum coke, and natural gas and other gases.
- 5. Quantity Received: Enter quantities in tons for coal and other solid fuels, barrels for oil and other liquid fuels, and thousands of cubic feet for gas. Fuel purchases reported should pertain to the fuel that will ultimately be used only in the electric power plant for the generation of electricity and at combined heat and power plants for useful thermal output (process steam, district heating/cooling, space heating, or steam delivered to other end users). As far as possible, do not include fuel that will be used in boilers with no connection to an electric power generator and are not part of the electric power station. If these fuels cannot be separated, please provide a comment on Schedule 9, Comments. Start-up and flame-stabilization fuels should be reported. When fuel is purchased by and received at the plant and is resold, report the total receipts minus the amount sold. See the below instruction regarding how to report the costs.

Cost of Fuel

- 6. Total Delivered Cost (all fuels): Enter the delivered cost of the fuel in cents per million Btu to the nearest 0.1 cent. This cost should include all costs incurred in the purchase and delivery of the fuel to the plant. It should not include unloading costs. Do not include adjustments associated with prior months' fuel costs. The delivered price for fuel shipped under contract should include any penalties/premiums paid or expected to be paid on the fuel delivered during the month. These adjustments should be made only by revising the appropriate prior months' submissions. The current month fuel costs should reflect only costs associated with the current month fuel deliveries. If fuel received at the plant is resold, report the commodity cost and the total delivered cost as the cents per MMBtu paid for the original receipt. Do not discount the costs by the revenue received for the sale of the fuel.
- 7. For natural gas, include the following pipeline charges: fuel losses, transportation reservation charges, balancing costs, and distribution system costs outside of the plant. Because these types of fees can skew the cost of the fuel per MMBtu, please provide an explanation in an edit log override comment, e.g. "This price includes a reservation fee of x dollars."
- 8. Commodity Cost (Coal, Petroleum Coke, and Natural Gas Only): The commodity cost is the price of that fuel (in cents per million Btu) at the point of first loading (free on board mine/transportation pipeline (FOB)) including taxes and any quality-related charges or credits. The commodity cost does not include: loading and unloading charges, dust proofing, freeze conditioning, switching charges, diesel fuel surcharges, pipeline charges, or any other charges relating to the movement of the fuel to the point of use. In the case of natural gas this is typically the price of the gas FOB the transmission pipeline.
- 9. For fuel purchased via a hedging contract, report the actual fuel supplier, not the hedge contract. Report the cost net of gains/losses as a result of the contract.

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SCHEDULE 2. PAGE 2. QUALITY OF FUEL AND TRANSPORTATION INFORMATION

Quality of Fuel

Fuel Supplier Name, Contract Type, Quantity Purchased, and Energy Source is prepopulated for efile users based on the data entered on page 1 of SCHEDULE 2.

- 1. **Heat Content:** Enter the actual (not contractual) average Btu content for each fuel purchase in terms of million (MMBtu) per ton for solid fuel, MMBtu per barrel for liquid fuel, and MMBtu per thousand cubic feet for gas. Show to the nearest 0.001 MMBtu. Refer to Table 8 for approximate ranges.
- 2. **Sulfur Content:** For all coal types, petroleum coke, residual fuel oil, and waste oil, enter the sulfur content of the fuel in terms of percent sulfur by weight. Show to the nearest 0.01 percent. Refer to Table 1 for approximate ranges.
- 3. **Ash Content:** For coal and petroleum coke, enter the ash content of the fuel in terms of percent ash by weight. Show to the nearest 0.1 percent. Enter a comment in Schedule 9 if the reported ash content for coal is an estimate. Refer to Table 1 for approximate ranges.
- 4. **Mercury Content:** For coal only, enter the mercury content in parts per million (ppm). Show to the nearest 0.001 parts per million (ppm). If lab tests of the coal receipts do not include the mercury content, enter the amount specified in the contract with the supplier. Refer to Table 1 for approximate ranges. If mercury content is unknown, enter 9.

Table 1

			Mercury
Fuel	% Sulfur	% Ash	(ppm)
BIT	0.4 - 6.0	4.0 – 30.0	0.020 0.500
LIG	0.4 - 3.0	5.0 – 35.0	0.020 0.500
SUB	0.2 – 1.5	3.0 – 15.0	0.020 0.200
ANT	0.4 - 6.0	4.0 – 30.0	0.020 0.500
RC	0.2 – 6.0	3.0 – 30.0	0.020 0.500
WC	0.3 – 6.0	5.0 – 50.0	0.020 1.200
PC	1.0 – 7.0	0.1 1.2	
RFO	0.2 – 4.5		
WO	0.0 – 4.5		

Fuel Transportation

- 5. **Natural Gas:** Use the following codes for natural gas transportation service:
 - **F Firm –** Gas transportation service provided on a firm basis, i.e. the contract with the gas transportation company anticipates no interruption of gas transportation service. Firm transportation service takes priority over interruptible service.
 - I Interruptible Gas transportation service provided under schedules or contracts which anticipate and permit interruption on short notice, such as in peak-load seasons, by reason of the claim of firm service customers and higher priority users.

(Note: Natural Gas received under firm contracts must be reported separately from interruptible contracts.)

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- 6. **Predominant Mode:** The method used to transport the fuel over the longest distance from point of origin to consumer. If the shipment involves only one mode of transportation, that is the Predominant Mode. If the shipment involves more than one mode of transportation, see Secondary Mode below.
- 7. Secondary Mode: If more than one method of transportation is used in a single shipment, the Secondary Mode of transportation is the second longest method used to transport the fuel to consumer. If more than two methods are used in a single shipment, only the Predominant and Secondary Modes should be reported.

Do not report "truck" as a transportation mode if trucks are used to transport coal exclusively on private roads between the mine and rail load-out or barge terminal.

Do not report the transportation modes used entirely within a mine, terminal, or power plant (e.g., trucks used to move coal from a mine pit to the mine load-out; conveyors at a power plant used to move coal from the plant storage pile to the plant).

For minemouth coal plants, report "Conveyor" as the Predominant Mode if the conveyor feeding coal to the plant site originates at the mine. Otherwise report the Predominant Mode (typically truck or rail) used to move the coal to the plant site.

Report Transportation Modes using the following codes:

- **RR Rail:** Shipments of fuel moved to consumers by rail (private or public/commercial). Included is coal hauled to or away from a railroad siding by truck if the truck did not use public roads.
- **RV River:** Shipments of fuel moved to consumers via river by barge. Not included are shipments to Great Lakes coal loading docks, tidewater piers, or coastal ports.
- **GL Great Lakes:** Shipments of coal moved to consumers via the Great Lakes. These shipments are moved via the Great Lakes coal loading docks, which are identified by name and location as follows:

Conneaut Coal Storage & Transfer, Conneaut, Ohio

NS Coal Dock (Ashtabula Coal Dock), Ashtabula, Ohio

Sandusky Coal Pier, Sandusky, Ohio

Toledo Docks, Toledo, Ohio

KCBX Terminals Inc., Chicago, Illinois

Superior Midwest Energy Terminal, Superior, Wisconsin

TP – Tidewater Piers and Coastal Ports: Shipments of coal moved to Tidewater Piers and Coastal Ports for further shipments to consumers via coastal water or ocean. The Tidewater Piers and Coastal Ports are identified by name and location as follows:

Dominion Terminal Associates, Newport News, Virginia

McDuffie Coal Terminal, Mobile, Alabama

IC Railmarine Terminal, Convent, Louisiana

International Marine Terminals, Myrtle Grove, Louisiana

Cooper/T. Smith Stevedoring Co. Inc., Darrow, Louisiana

Seward Terminal Inc., Seward, Alaska

Los Angeles Export Terminal, Inc., Los Angeles, California

Levin-Richmond Terminal Corp., Richmond, California

Baltimore Terminal, Baltimore, Maryland

Norfolk Southern Lamberts Point P-6, Norfolk, Virginia

Chesapeake Bay Piers, Baltimore, Maryland

Pier IX Terminal Company, Newport News, Virginia

Electro-Coal Transport Corp., Davant, Louisiana

WT - Water: Shipments of fuel moved to consumers by other waterways.

TR - Truck: Shipments of fuel moved to consumers by truck. Not included is fuel hauled to or away from

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a railroad siding by truck on non-public roads.

TC – Tramway/Conveyor: Shipments of fuel moved to consumers by tramway or conveyor.

SP – Slurry Pipeline: Shipments of coal moved to consumers by slurry pipeline.

PL – Pipeline: Shipments of fuel moved to consumers by pipeline.

SCHEDULE 2. PAGE 3. COAL MINE INFORMATION

Fuel Supplier Name, Contract Type, Quantity Purchased, and Energy Source will be prepopulated for e-file users based on the data entered on page 1 of SCHEDULE 2.

 State or Country of Origin: Choose the two-letter U.S. Postal Service abbreviation or country code from the drop down list of coal producing states (countries). For imported coal, insert the two-letter country code shown here.

AS – Australia; CN – Canada; CL – Colombia; IS – Indonesia; PL – Poland;

RS - Russia; VZ - Venezuela; OT - Other (specify the country in Schedule 9).

The State of Origin is mandatory. If purchases originate from a broker, barge site or other third party, you must contact the broker, barge site or other party and find out the State(s) where the coal originates. If the broker or supplier is not forthcoming with State of Origin information or Mine Information, provide the name and telephone number of the supplier on Schedule 9, Comments.

If coal purchased under a purchase order or contract originates in more than one State, determine from the supplier the most dominant or probable State(s) of origin for the coal. Contact EIA to have the supplier and State(s) added to the drop down list of choices for State of Origin and Mine Information on Schedule 2 Page 3. If the amount of coal from each State/Mine is known, allocate the purchase among multiple States, or report the State where the majority of the coal originates and report identical quality and cost data (unless the actual quality and costs are known).

Contact EIA immediately (see contacts on Page 1 of the form or instructions) for assistance in reporting coal State of Origin or Mine Information. EIA will add appropriate choices for purchases from multiple sources to the drop down list.

2. Mine Information: Choose from the drop down list the mine of origin. The list will display only those mines located in the State/country of origin. The displayed information includes the mine operating company for informational purposes to aid in identifying the mine of origin. Upon choosing a mine, the MSHA ID, Mine Name, Mine Type and Mine County will automatically be populated.

Mine Information is mandatory. Determine from the supplier the most dominant or probable mine(s) of origin for the coal. List the mines on Schedule 9, Comments. If the broker or supplier is not forthcoming with State of Origin information or Mine Information, provide the name and telephone number of the supplier on Schedule 9, Comments.

In cases where coal originates from multiple mines or the specific mine information cannot be determined, list the tipple/loading point or dock on Schedule 9, Comments. EIA will add appropriate choices to the drop down list of Mine Information to accommodate multiple mines or undetermined mine sources. Use Schedule 9, Comments, to provide detailed explanations of mine origin data, including names of multiple mines for a specific supplier/broker or dock, or the most probable origin of the coal (county/State) if not specifically known.

Contact EIA immediately (see contacts on Page 1 of the form or instructions) for assistance in reporting coal State of Origin or Mine Information. EIA will add appropriate choices for purchases from multiple sources to the drop down list.

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SCHEDULE 3. PART A. BOILER-LEVEL INFORMATION FOR STEAM-ELECTRIC ORGANIC-FUELED PLANTS – FUEL CONSUMPTION

Required Respondents: Complete this schedule for fuels consumed in the boilers at plants with steam turbines that have a total nameplate capacity of 10 MW and above and burn organic fuels. This does not include steam turbines where the energy source is nuclear, geothermal, or solar, or plants that have less than 10 MW total steam turbine nameplate capacity. Also report on this schedule fuels consumed at combined-cycle plants for supplementary firing of heat recovery steam generator (HRSG) units that have a total steam turbine nameplate capacity of 10 MW and above. If no fuel is consumed, for example in combined cycle steam units (HRSG) without supplementary firing, report zero. Do not leave the field blank. Report fuels consumed in gas turbines, including the gas turbines at combined-cycle plants, and IC engines on SCHEDULE 3 PART B.

For combined heat and power plants, if steam was produced for purposes other than electric power generation during this reporting period, please place a check in the box on the form.

For those plants that report annually, Schedules 3A and 5A must be reported for each month.

Prime movers are devices that convert one energy form (such as heat from fuels or the motion of water or wind) into mechanical energy. Examples include steam turbines, combustion turbines, reciprocating engines, and water turbines. For a complete list of prime mover codes, please refer to Table 7.

Prime Mover Code: Prime mover codes are shown in Table 7. Only CA and ST can be used in Schedule 3. Part A. For e-file users, the code will be prepopulated. If the prepopulated code is incorrect, delete the code and choose the correct prime mover code from the drop-down list.

Boiler ID: The boiler ID is prepopulated. For an ID not prepopulated, choose the ID from the drop down list of boiler IDs that were reported for your plant on the Form EIA-860. If the boiler ID is not on the list, contact EIA immediately to have the ID added to your form. Boiler IDs must match those reported on the Form EIA-860.

Boiler Status: Enter one of the codes listed below:

Table 2

Code	Boiler Status
OP	Operating (in commercial service or out of service less than 365 days)
os	Out of service (365 days or longer)
RE	Retired (no longer in service and not expected to be returned to service)
SB	Standby (or inactive reserve); i.e., not normally used, but available for service
SC	Cold Standby (Reserve); deactivated (usually requires 3 to 6 months to reactivate)
TS	Operating under test conditions (not in commercial service)

Energy Source: Use the fuel codes in Table 8. For bituminous and subbituminous coal that is blended, where possible report each coal rank consumed separately. If no allocation can be determined, report the fuel that is predominant in quantity. An estimated allocation between coal ranks is acceptable.

Quantity Consumed: For each month, report the amount of fuel consumed for electric power generation and, at combined heat and power stations, for useful thermal output. Combined-cycle units should report only the auxiliary firing fuel associated with the HRSG. Do not report the fuel consumed in the combustion turbine portion of the combined-cycle unit on Schedule 3A. CT consumption must be reported on Schedule 3B.

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Type of Physical Units: Fuel consumption must be reported in the following units:

Solids - Tons

Liquids – Barrels (one barrel equals 42 U.S. gallons)

Gases – Thousands of cubic feet (Mcf)

Average Heat Content: For each month, report the heat content of the fuels burned to the nearest 0.001 million Btu (MMBtu) per physical unit. The heat content of the fuel should be reported as the gross or "higher heating value" (rather than the net or lower heating value). The higher heating value exceeds the lower heating value by the latent heat of vaporization of the water. The heating value of fuels generally used and reported in a fuel analysis, unless otherwise specified, is the higher heating value. If the fuel heat content cannot be reported "as burned," data may be obtained from the fuel supplier on an "as received" basis. If this is the case, indicate on SCHEDULE 9 that the fuel heat content data are "as received." Report the value in the following units: solids in million Btu (MMBtu) per ton; liquids in MMBtu per barrel; and gases in MMBtu per thousand cubic feet (Mcf). Refer to Table 8 for approximate ranges of heat content of specific energy sources.

Sulfur Content (petroleum, petroleum coke, and coal): For each month, enter sulfur content to nearest 0.01 percent. Sulfur content should be reported for the following fuel codes: ANT, BIT, LIG, RC, SUB, WC, PC, RFO, and WO. Refer to Table 1 for approximate ranges.

Ash Content (coal and petroleum coke only): For each month, enter ash content to the nearest 0.1 percent. Ash content should be reported for the following fuel codes: ANT, BIT, LIG, SUB, WC, RC, and PC. Refer to Table 1 for approximate ranges.

Report actual values. If necessary, report estimated values and state that the value is an estimate on SCHEDULE 9.

ENTER ZERO when an energy source was not consumed for the reporting period. Do not leave blank.

SCHEDULE 3. PART B. FUEL CONSUMPTION - PRIME MOVER-LEVEL

Required Respondents: Report fuel consumed in all gas turbines, including the combustion turbine part of combined-cycle plants, internal combustion engines, steam-electric plants under 10 megawatts, fuel cells, and electric power input to pumped-storage hydroelectric plants, compressed air units, and other miscellaneous energy storage technologies. Excluded from this schedule are conventional hydroelectric plants and all other plants that are not required to report energy consumed (e.g., wind, solar, geothermal, and nuclear). Do not report for each individual unit. For example, report natural gas consumed in all combustion turbines at the plant as one value and report distillate fuel oil consumed by all IC engines as one value. Combined-cycle plants should report the fuel consumed by the combustion turbines on this schedule. Report supplementary fuel consumed by the HRSG on this schedule only if the total steam-electric capacity is less than 10 MW. All steam-electric plants and supplementary-fired HRSGs at combined cycle plants with a total steam electric nameplate of 10 MW and above must report fuel consumption at the boiler level on Schedule 3A.

Prime movers are devices that convert one energy form (such as heat from fuels or the motion of water or wind) into mechanical energy. Examples include steam turbines, combustion turbines, reciprocating engines, and water turbines.

For combined heat and power plants, if steam was produced for purposes other than electric power generation during this reporting period, please place a check in the box on the form.

Prime Mover Code: Prime mover codes are shown in Table 7. Only CA, CE, CS, CT, FC, GT, IC, PS, ST, and OT can be used in Schedule 3. Part B. For e-file users, the code is prepopulated. If the prepopulated code is incorrect, choose the correct code from the drop-down list. Each prime mover type on Schedule 3B must have a corresponding entry on Schedule 5B for electric power generation.

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Report actual values. If necessary, report estimated values and state that the value is an estimate on SCHEDULE 9.

Energy Source: Use the fuel codes in Table 8. For bituminous and subbituminous coal that is blended, where possible report each coal rank consumed separately. If no allocation can be determined, report the fuel that is predominant in quantity. An estimated allocation between coal ranks is acceptable.

Quantity Consumed: For each month, report the amount of fuel consumed for electric power generation and, at combined heat and power stations, for useful thermal output. Include start-up and flame-stabilization fuels. Pumped storage hydroelectric plants and compressed air plants report the megawatthours of energy input for pumping water or compressing air for energy storage. Combined cycle plants with no supplementary firing must report the CA unit on Schedule 3B with ZERO for fuel consumed. Each prime mover type on Schedule 3B must have a corresponding entry on Schedule 5B for electric power generation.

Type of Physical Units: Fuel consumption must be reported in the following units:

Solids – Tons

Liquids – Barrels (one barrel equals 42 U.S. gallons)

Gases – Thousands of cubic feet (Mcf)

Pumped storage hydro and compressed air -- Megawatthours

Average Heat Content: For each month, report the heat content of the fuels burned to the nearest .001 MMBtu (million Btu) per physical unit (MMBtu per ton/barrel/thousand cubit feet). The heat content of the fuel should be reported as the gross or "higher heating value" (rather than the net or lower heating value). The higher heating value exceeds the lower heating value by the latent heat of vaporization of the water. The heating value of fuels generally used and reported in a fuel analysis, unless otherwise specified, is the higher heating value. If the fuel heat content cannot be reported "as burned," data may be obtained from the fuel supplier on an "as received" basis. If this is the case, indicate on SCHEDULE 9 that the fuel heat content data are "as received." Report the value in the following units: solids in MMBtu per ton; liquids in MMBtu per barrel; and gases in MMBtu per thousand cubic feet (Mcf). Refer to Table 8 for approximate ranges of heat content for specific fuels. Heat content can be blank if fuel consumed is zero and for pumped storage and compressed air plants.

SCHEDULE 4. FOSSIL FUEL STOCKS AT THE END OF THE REPORTING PERIOD AND DATA BALANCE

Required Respondents: Schedule 4 regarding stocks must be completed by all plants that burn fossil fuels: COAL, DISTILLATE FUEL OILS (NO. 2, 4), RESIDUAL FUEL OIL (NO. 6), JET FUEL, KEROSENE, PETROLEUM COKE, and for plants 50 MW and above, NATURAL GAS. Although there are no stocks for natural gas, the energy balance (between receipts and consumed fuel) and comments should be completed for natural gas plants that have a total nameplate capacity of 50 MW and more (and have completed Schedule 2).

Report fuel stocks ONLY for the following fuels:

- Coal: Report all stocks of coal for use by this power plant. Include both stocks held on site and stocks held off site whether owned by your plant or by an affiliated company. If the stocks are held for the plant by an affiliated company and the amount is unknown, please provide EIA the name of the company. EIA will contact them to obtain the stocks number. Do not report waste coal stocks.
- Residual oil (No. 5 and No. 6 fuel oils)
- Distillate-type oils (including diesel oil, No. 2 oil, jet fuel, and kerosene)
- Petroleum coke

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Include back-up fuels and start-up and flame-stabilization fuels. Do not report stocks for waste coal, natural gas, or wood and wood waste or other biomass fuels. All fuel stocks should be reported at the plant level where possible. Stocks data should be reported by a transfer terminal or storage facility only if inventory cannot be attributed to individual plants.

To avoid duplication, do not report receipts in Schedule 2 at the plant level that have already been reported by a transfer terminal or storage facility and then transferred to a plant(s). Designate such transfers in Schedule 4 as negative adjustments to stocks at the transfer terminal or storage facility and positive adjustments to stocks at the plant, including appropriate comments. Depending on the required data at transfer terminals or storage sites and associated plants, the energy balance may require an explanatory comment. **ENTER ZERO** in the Ending Stocks column if a plant has no stocks. Do not leave the field blank.

Energy Source: Add the energy source code from Table 8. For e-file users the code is prepopulated. If the code is incorrect, choose the correct code from the drop-down list.

Type of Physical Units: Report coal and petroleum coke in tons and distillate and residual oils in barrels.

- Previous Month's Ending Stocks: This is automatically populated into the schedule from the previous reporting period.
- 2. **Current Month's Purchases:** These data have been reported (above in SCHEDULE 2) and the sum by energy source is automatically populated.
- 3. **Current Month's Consumption:** These data have been reported (in SCHEDULE 3A and 3B) and the sum by energy source is automatically populated.
- 4. **Ending Stocks:** Report this month's ending stocks. Include all on-site stocks held for eventual use in the electric power plant regardless of actual ownership of the fuel.
- Adjustment to Stocks: Report adjustments to end-of-month stocks. Adjustments may include stocks transferred or sold offsite and revisions to account for adjustments to previous months' stocks. Adjustments can be positive or negative. Enter an explanation for the adjustment in the section provided on Schedule 4.
- 6. **Balance:** The data balance verifies the quality of the data. The balance is the difference between Reported Ending Stocks (4) and an expected value for ending stocks calculated by the following equation: Previous Month's Ending Stocks plus Current Month's Purchases minus Current Month's Consumption plus (or minus) Adjustment to Stocks [(4) = (1) + (2) (3) + (5)]. If the balance is a nonzero value, please review the data entered for stocks, receipts, consumption, and adjustments. Enter a comment in the box on Schedule 4 for Balance comments to explain any discrepancy. Fuel receipts that are not used for the production of electricity but for other purposes at the plant (e.g. as a feed material to produce chemical byproducts such as fertilizers, etc.) may cause an imbalance in the equation. Likewise, fuel that is sold during the month may cause an imbalance. Enter an adjustment to balance the equation and enter an explanation for the adjustment or other situation that result in an imbalance. Note that there are separate areas on Schedule 4 for adjustment explanations and explanations for balances not equal to zero.

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SCHEDULE 5. PART A. GENERATOR INFORMATION FOR STEAM-ELECTRIC **ORGANIC-FUELED PLANTS**

Required Respondents: This schedule will be completed ONLY for generators at steam-electric organicfueled plants with a total steam turbine capacity of 10 megawatts and above, including the steam turbine generation from combined cycle units. Report generation for all other types of prime movers (combustion turbines, IC engines, wind, and hydraulic turbines), and steam turbine capacity of less than 10 megawatts and all plants fueled by nuclear, solar, geothermal, or other energy sources on SCHEDULE 5. PARTS B or C. Generation reported on Schedule 5. Part A. corresponds to the fuel consumption reported on Schedule 3. Part A.

For those plants that report annually, Schedules 3.A. and 5.A. must be reported for each month.

Prime Mover Code: Prime mover codes are shown in Table 7. Only CA and ST can be used in Schedule 5. Part A. For e-file users, the code is prepopulated. If the prepopulated code is incorrect, choose the correct prime mover code from the drop-down list.

Generator ID: The generator ID is prepopulated. For an ID not prepopulated, choose the ID from the drop down list of generator IDs that were reported for your plant on the Form EIA-860. If the generator ID is not on the list, contact EIA immediately to have the ID added to your form. Generator IDs must match those reported on the Form EIA-860.

Data must be reported in megawatthours (MWh), rounded to whole numbers, no decimals.

If no generation occurred, report **ZERO**. Please do not leave fields blank.

Generator Status: Enter one of the codes listed in Table 3 for generator status.

Table 3

Status Code	Status Code Description
OP	Operating - in service (commercial operation) and producing some electricity. Includes peaking units that are run on an as needed (intermittent or seasonal) basis.
SB	Standby/Backup - available for service but not normally used (has little or no generation during the year) for this reporting period
OA	Out of service – was not used for some or all of the reporting period but was either returned to service on December 31 or will be returned to service in the next calendar year.
os	Out of service – was not used for some or all of the reporting period and is NOT expected to be returned to service in the next calendar year.
RE	Retired - no longer in service and not expected to be returned to service

Gross Generation: Enter the total amount of electric energy produced by generating units and measured at the generating terminal. For each month, enter that amount in MWh.

Net Generation: Enter the net generation (gross generation minus the parasitic station load, i.e. station use). If the monthly station service load exceeded the monthly gross electrical generation, report negative net generation with a minus sign. Do not use parentheses. For each month, enter that amount in MWh. Combined heat and power plants in the industrial and commercial sectors may choose to leave net generation blank in cases where net generation cannot be determined. Please note that net generation is not defined as electric power sold to the grid (net of direct use), but as gross minus station use. If station use is not separable from direct use at combined heat and power plants, report only gross generation and leave net generation blank.

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SCHEDULE 5. PART B. PRIME MOVER LEVEL GENERATION

Required Respondents: This schedule will be completed by: 1) steam-electric organic-fueled plants with a total steam turbine capacity less than 10 megawatts, 2) combined-cycle plants whose steam portion of the operation is under 10 MW and 3) all IC engines, combustion turbines, compressed air units, pumped-storage hydroelectric turbines, and other miscellaneous energy storage technologies. Generation reported on this schedule corresponds to the fuel consumption reported on Schedule 3. Part B.

Prime Mover Code: Prime mover codes are shown in Table 7. Only CA, CE, CS, CT, FC, GT, IC, PS, ST, and OT can be used in Schedule 5. Part B. For e-file users, the code is prepopulated. If the prepopulated code is incorrect, choose the correct prime mover code from the drop-down list. Each prime mover type on Schedule 5B must have a corresponding entry on Schedule 3B for fuel consumption. Note that for prime mover type CA, the entry on Schedule 3B (fuel consumed) is ZERO. If no generation occurred, report zero. Do not leave fields blank.

Data must be reported in MWh, rounded to whole numbers, with no decimals.

Gross Generation: Enter the total amount of electric energy produced by generating units and measured at the generating terminal. For each month, enter in the MWh generated.

Net Generation: Enter the net generation (gross generation minus the parasitic station load, i.e. station use). If the monthly station service load exceeded the monthly gross electrical generation, report negative net generation with a minus sign. Do not use parentheses. For each month, enter that amount in MWh. Combined heat and power plants in the industrial and commercial sectors may choose to leave net generation blank in cases where net generation cannot be determined. Please note that net generation is not defined as electric power sold to the grid (net of direct use), but as gross minus station use. If station use is not separable from direct use at combined heat and power plants, report only gross generation and leave net generation blank.

SCHEDULE 5. PART C. GENERATION FROM NUCLEAR AND OTHER NONCOMBUSTIBLE ENERGY SOURCES

Required Respondents: This schedule will be completed by all nuclear plants and by all wind, solar, geothermal, conventional hydroelectric or other plants where the energy source is not required to be reported on Schedules 3A or 3B, such as purchased steam or waste heat. No fuel consumption data is required for these types of plants. Report generation by energy source for nuclear, wind, solar, geothermal, conventional hydroelectric and miscellaneous sources such as purchased steam or waste heat. Report nuclear data by generating unit. For all other plant types, ignore the unit column. Do not report generation at a combined-cycle plant. All combined-cycle generation is reported on SCHEDULE 5. PARTS A or B, even though the fuel consumption for non-supplementary fired HRSG units is zero (reported on Schedule 3A or 3B with a zero for fuel).

Prime Mover Code: Prime mover codes are shown in Table 7. Only HY, HA, HB, HK, BT, PV, ST, WT, and OT can be used in Schedule 5. Part C. For e-file users, the code is prepopulated. If the prepopulated code is incorrect, choose the correct prime mover code from the drop-down list.

Energy Source: Enter one of the fuel codes listed in Table 8.

Unit Code: The nuclear unit code is prepopulated. Contact EIA if it is incorrect. All other plants ignore this field.

Gross Generation: Enter the total amount of electric energy produced by generating units and measured at the generating terminal. For each month, enter that amount in MWh.

Net Generation: Enter the net generation (gross generation minus the parasitic station load, i.e. station use). If the monthly station service load exceeded the monthly gross electrical generation, report negative net generation with a minus sign. Do not use parentheses. For each month, enter that amount in MWh. Combined heat and power plants in the industrial and commercial sectors may choose to leave net

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generation blank in cases where net generation cannot be determined. Please note that net generation is not defined as electric power sold to the grid (net of direct use), but as gross minus station use. If station use is not separable from direct use at combined heat and power plants, report only gross generation and leave net generation blank.

SCHEDULE 6. NONUTILITY ANNUAL SOURCE AND DISPOSITION OF ELECTRICITY

Required Respondents: Nonutility plants report annual calendar year data for the source and disposition of electricity.

- If you file the EIA-923 <u>monthly</u>,, this schedule is completed on the Form EIA-923 Supplemental Form and is filed annually.
- If you file the EIA-923 annually, this schedule is completed on the Form EIA-923 Annual.

Report all generation in MWh rounded to a whole number.

Source of Electricity

- Gross Generation (Annual): Report the total gross generation from all prime movers at the plant.
 Note that for monthly respondents this should equal the sum of the gross generation reported each
 month on Schedules 5A, 5B, and 5C.
- 2. **Other Incoming Electricity:** Report all incoming electricity to the facility, whether from purchases, tolling agreements, transfers, exchanges, or other arrangements.
- 3. **Total Sources:** Enter the sum of the total gross electricity generated plus the total incoming electricity. This entry must equal Total Disposition (see below).

Disposition of Electricity

- 4. Station Use: Station Use is electricity that is used to operate an electric generating plant, which is the electricity used in the operation and maintenance of the facility (e.g., parasitic loads from auxiliary equipment and onsite heating and lighting loads), regardless of whether the electricity is produced at the plant or comes from another source. Station use does not include any electricity converted and stored at an energy storage plant (such as electricity used for pumping at a hydroelectric pumped-storage plant), nor direct use (see below) of electricity by an industrial or commercial CHP plant.
- 5. **Direct Use (Industrial and Commercial Sector Plants, both CHP and non-CHP):** Report the amount of electricity generated by the plant and consumed onsite for processes such as manufacturing, district heating/cooling, and uses other than power plant station use. (Plants that cannot separate Station Use and Direct Use may enter zero in Station Use and the sum of Station Use and Direct Use in the Direct Use field. Provide a comment on SCHEDULE 9.)
- 6. Total Facility Use: Report the total sum of station use and direct use.
- 7. Retail Sales to Ultimate Customers: Report the amount of electricity sold directly to retail (end-use) customers (power that is not re-sold or distributed by another entity). Include unbilled electricity provided to affiliated and non-affiliated entities, excluding power provided as part of a tolling agreement. By entering a value in this cell, you will be required to file the Form EIA-861 "Annual Electric Power Industry Report," for more detailed information on the nature of the retail sales.
- 8. **Sales for Resale:** Report the amount of electricity sold for resale (wholesale sales in MWh). If data are entered for this item, you must complete SCHEDULE 7.
- 9. **Other Outgoing Electricity:** Report all other outgoing electricity from the facility, such as tolling agreements, transfers, and exchanges.
- 10. **Total Disposition:** Report the sum of station use, direct use, retail sales, sales for resale, and other outgoing electricity. This entry must equal Total Sources (see above).

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SCHEDULE 7. ANNUAL REVENUES FROM SALES FOR RESALE

Required Respondents: To be completed by respondents who report a positive value on SCHEDULE 6, Disposition of Electricity, Item 8, Sales for Resale.

"Sales for Resale" is energy supplied to other electric utilities, cooperatives, municipalities, Federal and State electric agencies, power marketers, or other entities for resale to end-use consumers. This excludes energy supplied under tolling agreements that is intended for resale to end use customers. Report energy supplied under tolling agreements in "Other Outgoing Electricity." Report all revenue from Sales for Resale in thousand dollars to the nearest whole number.

SCHEDULE 8. ANNUAL ENVIRONMENTAL INFORMATION

Required Respondents: SCHEDULE 8 is filed annually and must be reported by steam-electric organic-fueled power plants and combined cycle plants with a total steam turbine capacity of 10 megawatts and above (that is the set of plants that reported boiler-level consumption on SCHEDULE 3. Part A.). Parts A through F are required for plants 100 MW and above, and only Parts C, E and F are required for plants from 10 megawatts to less than 100 MW.

- If you file the EIA-923 monthly, this schedule is completed on the Form EIA-923 Supplemental and is filed annually.
- If you file the EIA-923 <u>annually</u>, this schedule is completed on the Form EIA-923 Annual.

SCHEDULE 8. PART A. ANNUAL BYPRODUCT DISPOSITION

- 1. If no byproduct was produced, place a check in the checkbox labeled NO BYPRODUCTS.
- 2. If a byproduct is disposed of at no cost, enter the quantity of the byproduct under the appropriate column and make a footnote entry on SCHEDULE 9 stating that no money was exchanged for the quantity indicated. If there was a cost for disposal, make sure there is a corresponding entry on SCHEDULE 8, PART B, for collection and/or disposal costs. Costs for gypsum disposal should be reported on SCHEDULE 8, PART B, column 5, under "Disposal," with a footnote entry on SCHEDULE 9. Entries on SCHEDULE 8, PART A, in the Sold column, must be compatible with entries on SCHEDULE 8, PART B, columns 11 through 16, Byproduct Sales Revenue. If the byproduct was distributed in several different ways (for example, the byproduct was placed in a landfill and then later sold), report the end disposition of the byproduct and provide a comment on SCHEDULE 9 explaining all previous dispositions.
- 3. Do not include byproducts sold under "Used On-Site."
- 4. Fly ash from standard boiler/primary particulate collection device (PCD) units includes those with no flue gas desulfurization (FGD) system or with FGD systems located downstream of the PCD.
- Fly ash from units with dry FGD includes spray dryer or duct injection systems where Fly Ash and FGD byproducts are collected in the same PCD. It does not include Fluidized Bed Combustion (FBC) units.
- 6. Fly ash from FBC units includes fly ash from fluidized bed combustion (FBC) units.
- 7. **Bottom ash from standard boiler units** includes boiler slag from slagging combustors. It does not include Bottom (Bed) Ash from FBC units or slag from coal gasification units.
- 8. Bottom (bed) ash from FBC units includes bottom (bed) ash from fluidized bed combustion (FBC) units.
- 9. **FGD Gypsum** is defined as byproducts that are greater than 75 percent CaS0₄•2H₂0 by weight.
- 10. Other FGD byproducts includes all FGD byproducts not reported in Fly ash from units with dry FGD units; Fly ash from FBC units; Bottom ash from standard boiler units; Bottom (bed) ash from FBC units; and FGD gypsum along with additives used to stabilize the FGD byproducts.
- 11. **Ash from coal gasification (IGCC) units** includes slag or solids extracted from the bottom of the gasifier as well as fly ash removed downstream of the gasifier.
- 12. Other: Enter amount of other by-products. Specify the by-product on Schedule 9, Comments.

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13. Steam sales must be reported in million Btu (MMBtu).

SCHEDULE 8. PART B. FINANCIAL INFORMATION RELATED TO COMBUSTION BYPRODUCTS

- 1. All entries should be reported in thousand dollars to the nearest whole number.
- 2. For all Operation and Maintenance (O&M) Expenditures During Year, costs should be provided for both collection and disposal of the indicated byproducts. If the collection and disposal costs cannot be separated, place the total cost under Collection, and provide a comment on SCHEDULE 9 indicating that the costs cannot be separated. All operation and maintenance expenditures should exclude depreciation expense, cost of electricity consumed, and fuel differential expense (i.e., extra costs of cleaner, thus more expensive fuel). Include all contract and self-service pollution abatement operation and maintenance expenditures for each line item.
- 3. For column 1, **Fly Ash**, and column 2, **Bottom Ash**, expenditures cover all material and labor costs including equipment operation and maintenance costs (such as particulate collectors, conveyors, hoppers, etc.) associated with the collection and disposal of the byproducts. Record expenditures for IGCC slag or fly ash collection/disposal in Column (1) or Column (2), respectively.
- 4. For column 3, **Flue Gas Desulfurization**, expenditures cover all material and labor costs including equipment operation and maintenance costs associated with the collection and disposal of the sulfur byproduct.
- 5. For column 4, Water Pollution Abatement, expenditures cover all operation and maintenance costs for material and/or supplies and labor costs including equipment operation and maintenance (pumps, pipes, settling ponds, monitoring equipment, etc.), chemicals, and contracted disposal costs. Collection costs include any expenditure incurred once the water that is used at the plant is drawn from its source. Begin calculating expenditures at the point of the water intake. Disposal costs include any expenditure incurred once the water that is used at the plant is discharged. Begin calculating disposal expenditures at the water outlet (i.e., cooling costs).
- 6. For column 5, Other Pollution Abatement, operation and maintenance expenditures are those not allocated to one particular expenditure (e.g., expenditures to operate an environmental protection office or lab). Include expenses for conducting environmental studies for expansion or reduction of operation. Exclude all expenses for health, safety, employee comfort (OSHA), environmental aesthetics, research and development, taxes, fines, permits, legal fees, Superfund taxes, and contributions. Define other pollution abatement(s) in a comment on SCHEDULE 9.
- 7. For Capital Expenditures for New Structures and Equipment during Year, Excluding Land and Interest Expense, report all pollution abatement capital expenditures for new structures and/or equipment made during the reporting year regardless of the date they may become operational. Columns 7, 8, 9, and 10 should not be left blank. ENTER ZERO if the item is not applicable or an estimate is not available, and enter a comment in SCHEDULE 9. Specify the nature of the expenditures for these items in a comment on SCHEDULE 9.
- 8. For column 7, Air Pollution Abatement, report new structures and/or equipment purchased to reduce, monitor, or eliminate airborne pollutants, including particulate matter (dust, smoke, fly ash, dirt, etc.), sulfur dioxides, nitrogen oxides, carbon monoxide, hydrocarbons, odors, and other pollutants. Examples of air pollution abatement structures/equipment include flue gas particulate collectors, FGD units, continuous emissions monitoring equipment (CEMs), and nitrogen oxide control devices. Specify new structures/equipment in a comment on SCHEDULE 9.
- 9. For column 8, Water Pollution Abatement, report new structures and/or equipment purchased to reduce, monitor, or eliminate waterborne pollutants, including chlorine, phosphates, acids, bases, hydrocarbons, sewage, and other pollutants. Examples include structures/equipment used to treat thermal pollution; cooling, boiler, and cooling tower blowdown water; coal pile runoff; and fly ash waste water. Water pollution abatement excludes expenditures for treatment of water prior to use at the plant. Specify new structures/equipment in a comment on SCHEDULE 9.

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10. For column 9, Solid/Contained Waste, report new structures/equipment purchased to collect and dispose of objectionable solids or contained liquids. Examples include purchases of storage facilities, trucks, etc., to collect, store, and dispose of solid/contained waste. Include equipment used for handling solid/contained waste generated as a result of air and water pollution abatement. Specify new structures/equipment in a comment on SCHEDULE 9.

- 11. For column 10, **Other Pollution Abatement**, report amortizable expenses and purchases of new structures and or equipment when such purchases are not allocated to a particular unit or item. Examples include charges for the purchases of facilities to control hazardous waste, radiation, and noise pollution. Exclude all equipment purchased for aesthetics purposes. Specify new structures/equipment in a comment on SCHEDULE 9.
- 12. If **Byproduct Sales Revenue During Year** items are not applicable, ENTER ZERO in Total, column 16, only. Report the revenue, if any, for each listed byproduct. Specify "other" revenue in a comment on SCHEDULE 9. Entries must be compatible with the entries on SCHEDULE 8, PART A, "Sold" column. If the revenue for a byproduct is less than \$500, but more than zero dollars, enter a zero and enter a comment on SCHEDULE 9 with the actual dollar amount. Revenue for gypsum should be reported on SCHEDULE 8, PART B, column 14, with a comment on SCHEDULE 9. Report the total revenue for the sale of byproducts in column 16. If the revenue reported was for the sale of stockpiled byproducts from previous years, make a comment on SCHEDULE 9.

SCHEDULE 8. PART C. BOILER INFORMATION NITROGEN OXIDE EMISSION CONTROLS

- 1. No NO_x Controls: Place a check in this box if the plant has no NO_x control equipment or processes.
- 2. **Boiler ID:** The boiler ID must match and correspond to the boiler ID and associated information reported on the EIA-860. The boiler ID is prepopulated for e-file users. If it is not prepopulated, choose the boiler ID from the drop down list. If the boiler ID is not on the list, contact EIA.
- 3. **NO_x Control In-Service (hours):** Enter the total hours the nitrogen oxide control was in service during the reporting period (to the nearest hour).
- 4. **For Entire Year**, enter the controlled nitrogen oxide emission rate, in pounds per million Btu of the fuel, based on data from the continuous emission monitoring system (CEMS) where possible. Where CEMS data are not available, report the controlled nitrogen oxide emission rate based on the method used to report emissions data to environmental authorities.
- 5. For May through September Only, enter the controlled nitrogen oxide emission rate, in pounds per million Btu of the fuel, based on data from CEMS where possible. Where CEMS data are not available, report controlled nitrogen oxide rates based on the method used to report emissions data to environmental authorities. The summer emission rate may be assumed to be equivalent to the annual emission rate where identical nitrogen oxide controls are used year round.

SCHEDULE 8. PART D. MONTHLY COOLING SYSTEM OPERATIONS

NOTE: All steam-electric plants of 100 MW nameplate capacity or greater, including combined cycle and nuclear energy plants, must respond to this schedule. A separate page must be completed for each month.

- 1. If actual data are not available, provide an estimated value.
- 2. If the source of cooling water is a well or municipal water system, do not complete the Cooling Water Temperature sections.
- 3. **Cooling System ID or PLANT:** The cooling system ID must match and correspond to the data reported on the EIA-860. The ID is prepopulated for e-file users. If the ID is not prepopulated, choose the ID from the drop down list. If the cooling system ID is not on the list, contact EIA to have new IDs added. If the data to be reported are for the entire plant (because the data cannot be broken down by separate cooling systems), choose "PLANT" from the drop-down list.
- 4. **Cooling System Status:** Select from the equipment status codes on Table 4.

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PRIME MOVER CODES AND DESCRIPTION

Table 4

Code	System Status
OP	Operating (in commercial service or out of service less than 365 days)
os	Out of service (365 days or longer)
RE	Retired (no longer in service and not expected to be returned to service)
SB	Standby (or inactive reserve); i.e., not normally used, but available for service)
SC	Cold Standby (Reserve); deactivated (usually requires 3 to 6 months to reactivate)
TS	Operating under test conditions (not in commercial service)

- 5. **Hours in Service: Enter the** hours each cooling system was in service for the reporting period..
- 6. **Monthly Amount of Chlorine Added to Cooling Water** pertains solely to elemental chlorine. If a compound is used, determine the amount of chlorine in the compound. Report amount of chlorine to the nearest whole number in thousand pounds.
- 7. Average Monthly Rate of Cooling Water data should be the rate of flow reported in cubic feet per second (to the nearest 0.1 ft³). *Diversion* is the water moved from a watercourse without immediate beneficial use, for purposes such as filling a cooling pond or adding water to a lake from which thermoelectric power water withdrawals can occur. *Withdrawal* is the water removed from a water body for beneficial use such as cooling water, boiler make-up water, ash sluicing, and dust suppression. *Discharge* is the water returned to a water body, not necessarily the same water body as the withdrawal. (Do not include water discharged to a recirculation pond that will be re-used at this power plant.) *Consumption* is the water that is withdrawn from a water body and not returned (discharged), because of evaporation losses and onsite consumption such as for dust control and flue gas desulfurization.
- 8. For **Measured or Estimated**, if all data reported under either the Average Monthly Rate of Cooling Water section or the Intake or Discharge Temperature section have been measured, choose one of the choices for "Measured" from the drop-down list. If one or more entries have been estimated in a particular section choose one of the estimation methodologies given in the drop-down list for that section. If "Other" is chosen, provide details of the estimation method on Schedule 9.
- 9. **For the Cooling Water Temperature** sections, report the Average Monthly Temperature and the Maximum Temperature for the Month in degrees Fahrenheit to the nearest whole number, measured at the withdrawal point from the natural body of water or cooling pond in the case where water s first divertedand discharge into the natural body of water.

SCHEDULE 8, PART E. FLUE GAS PARTICULATE COLLECTOR INFORMATION

- 1. Flue Gas Particulate Collector ID: The flue gas particulate collector ID must match and correspond to the data reported on the Form EIA-860. The ID is prepopulated for e-file users. For an ID not prepopulated, choose the ID from the drop down list. If the ID is not on the list, contact EIA.
- 2. **FGP Collector Status:** Select from the equipment status codes in Table 5.

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ENERGY SOURCE CODES AND HEAT CONTENT

Table 5

Code	Status
CN	Cancelled (previously reported as "planned")
СО	New unit under construction
OP	Operating (in commercial service or out of service within 365 days)
os	Out of service (365 days or longer)
PL	Planned (on order or expected to go into commercial service within 5 years)
RE	Retired (no longer in service and not expected to be returned to service)
SC	Cold Standby (Reserve); deactivated (usually requires 3 – 6 months to reactivate)
TS	Operating under test conditions (not in commercial service)

- 3. Hours in Service: Enter the hours each collector was in service for the reporting period.
- 4. For **Typical Particulate Emissions Rate**, enter the particulate emission rate based on the annual operating factor (to nearest 0.01 pound per million Btu).
- 5. For Removal Efficiency of Particulate Matter at Annual Operating Factor and At 100-Percent Load or Tested Efficiency, if the collector has a combination of components (i.e., a baghouse and an electrostatic precipitator) enter both components as one unit in one column. If the particulate collector also removes sulfur dioxide, enter the particulate scrubbing process in this section and the desulfurization process on SCHEDULE 8, PART F, FLUE GAS DESULFURIZATION UNIT INFORMATION ANNUAL OPERATIONS.
- 6. For Removal Efficiency of Particulate Matter at Annual Operating Factor, enter removal efficiency based on the annual operating factor. Annual operating factor is defined as annual fuel consumption divided by the product of design firing rate and hours of operation per year. If actual data are unavailable, provide estimates based on equipment design performance specifications.
- 7. For **At 100-Percent Load or Tested Efficiency**, if the test was conducted, but not at 100-percent load, enter the efficiency and provide the load at which the test was conducted in a comment on SCHEDULE 9. If no test has been conducted, ENTER ZERO in the column and leave the test date blank. Test results should not be reported if there was no test date.
- 8. For **Date of Most Recent Efficiency Test**, enter test date. If an efficiency test has never been performed, enter "NA" and enter a comment on SCHEDULE 9.

SCHEDULE 8. PART F. FLUE GAS DESULFURIZATION UNIT INFORMATION ANNUAL OPERATIONS

- 1. Flue Gas Desulfurization Unit ID: The flue gas desulfurization unit ID must match and correspond to the data reported on the Form EIA-860. The ID is prepopulated for e-file users. For an ID not prepopulated, choose the ID from the drop down list. If the ID is not on the list, contact EIA.
- 2. **Flue Gas Desulfurization Unit Status,** as of January 1 following the end of the reporting year. Select from the equipment status codes listed in Table 6.

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Table 6

Code	Status
CN	Cancelled (previously reported as "planned")
СО	New unit under construction
OP	Operating (in commercial service or out of service less than 365 days)
os	Out of service (365 days or longer)
PL	Planned (on order and expected to go into commercial service within 5 years)
RE	Retired (no longer in service and not expected to be returned to service)
SB	Standby (or inactive service); i.e. not normally used, but available for service
SC	Cold Standby (Reserve); deactivated (usually requires 3 – 6 months to reactivate
TS	Operating under test conditions (not in commercial service)

- 3. For **Hours in Service**, enter the total number of hours one or more trains (or modules) were in operation; do not report for individual trains.
- 4. **Quantity of FGD Sorbent Used**: Enter the quantity of FGD sorbent used during the reporting period (to the nearest 0.1 thousand tons).
- 5. **Electrical Energy Consumption**: Enter the Electrical Energy Consumed by this Unit during the reporting period (in megawatthours).
- 6. For Estimated Removal Efficiency for Sulfur Dioxide at Annual Operating Factor and At 100 Percent Load or Tested Efficiency, if the FGD unit also removes particulate matter, enter the desulfurization process in this section and the particulate scrubbing process on SCHEDULE 8. PART E, FLUE GAS PARTICULATE COLLECTOR INFORMATION.
- 7. For Estimated Removal Efficiency for Sulfur Dioxide at Annual Operating Factor, enter removal efficiency based on the annual operating factor. Annual operating factor is defined as annual fuel consumption divided by the product of design firing rate and hours of operation per year. If actual data are unavailable, provide estimates based on equipment design performance specifications.
- 8. For Estimated Removal Efficiency for Sulfur Dioxide at 100-Percent Load or Tested Efficiency, if the test was conducted, but not at 100-percent load, enter the efficiency, and provide the load at which the test was conducted in a comment on SCHEDULE 9. If no test was conducted, enter zero for the efficiency and leave the test data blank. Test results should not be given without a test date.
- 9. Report the **Operation and Maintenance Expenditures during the Year**, excluding electricity, in thousand dollars.

SCHEDULE 9. COMMENTS

This schedule provides additional space for comments. Please identify schedule, item, and identifying information (e.g., plant code, boiler ID, generator ID, prime mover) for each comment. If plant is sold, provide purchaser's name, a telephone number (if available), and date of sale.

POWER PLANT OPERATIONS REPORT INSTRUCTIONS

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Table 7

Prime Mover Code	Prime Mover Description
BT	Turbines Used in a Binary Cycle (such as used for geothermal applications)
CA	Combined-Cycle – Steam Part
CE	Compressed Air Energy Storage
СР	Energy Storage, Concentrated Solar Power
CS	Combined-Cycle Single-Shaft Combustion turbine and steam turbine share a single generator
СТ	Combined-Cycle Combustion Turbine Part
FC	Fuel Cell
GT	Combustion (Gas) Turbine (including jet engine design)
HA	Hydrokinetic, Axial Flow Turbine
НВ	Hydrokinetic, Wave Buoy
HK	Hydrokinetic, Other
HY	Hydraulic Turbine (including turbines associated with delivery of water by pipeline)
IC	Internal Combustion (diesel, piston) Engine
ОТ	Other – Specify on SCHEDULE 9.
PS	Hydraulic Turbine – Reversible (pumped storage)
PV	Photovoltaic
ST	Steam Turbine (including nuclear, geothermal and solar steam, excluding combined-cycle)
WT	Wind Turbine

POWER PLANT OPERATIONS REPORT INSTRUCTIONS

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		Burden: 2.8 Hours						
	_			Table 8	·			
			"Higher Heating Value" Range MMBtu MMBtu Lower Upper					
	Energy Source Code	Unit Label			Energy Source Description			
Fossil Fuels								
	ANT	tons	22	28	Anthracite Coal			
	BIT	tons	20	29	Bituminous Coal			
	LIG	tons	10	14.5	Lignite Coal			
Coal	SUB	tons	15	20	Subbituminous Coal			
	WC	tons	6.5	16	Waste/Other Coal (including anthracite culm, bituminous gob, fine coal, lignite waste, waste coal)			
	RC	tons	20	29	Refined Coal			
	DFO	barrels	5.5	6.2	Distillate Fuel Oil (including diesel, No. 1, No. 2, and No. 4 fuel oils.			
	JF	barrels	5	6	Jet Fuel			
Petroleum Products	KER	barrels	5.6	6.1	Kerosene			
1 Toursto	PC	tons	24	30	Petroleum Coke			
	RFO	barrels	5.8	6.8	Residual Fuel Oil (including No. 5 and No. 6 fuel oils, and bunker C fuel oil.			
	WO	barrels	3.0	5.8	Waste/Other Oil (including crude oil, liquid butane, liquid propane, oil waste, re-refined motor oil, sludge oil, tar oil, or other petroleum-based liquid wastes)			
	BFG	Mcf	0.07	0.12	Blast Furnace Gas			
Natural Gas	NG	Mcf	0.8	1.1	Natural Gas			
and Other Gases	OG	Mcf	0.32	3.3	Other Gas (specify in Comment Section of SCHEDULE 9)			
	PG	Mcf	2.5	2.75	Gaseous Propane			
	SG	Mcf	0.2	1.1	Synthetic Gas			
	SGC	Mcf	0.2	0.3	Coal-Derived Synthetic Gas			
			Rei	newable Fu	uels			
	AB	tons	7	18	Agricultural By-Products			
Solid	MSW	tons	9	12	Municipal Solid Waste			
Renewable Fuels	OBS	tons	8	25	Other Biomass Solids (specify in Comment Section of SCHEDULE 9)			
	WDS	tons	7	18	Wood/Wood Waste Solids (including paper pellets, railroad ties, utility poles, wood chips, bark, and wood waste solids)			

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Table 8 Continued

	Energy Source Code	Unit Label	· ·		Energy Source Description				
	0000		MMBtu Lower	MMBtu Upper					
			Renew	able Fuels	s (cont.)				
	OBL	barrels	3.5	4	Other Biomass Liquids (specify in Comment Section of SCHEDULE 9)				
Liquid	SLW	tons	10	16	Sludge Waste				
Renewable (Biomass)	BLQ	tons	10	14	Black Liquor				
Fuels	WDL	barrels	8	14	Wood Waste Liquids excluding Black Liquor (includes red liquor, sludge wood, spent sulfite liquor, and other wood-based liquids)				
Gaseous	LFG	Mcf	0.3	0.6	Landfill Gas				
Renewable (Biomass) Fuels	OBG Mcf 0.36 1.6 m		1.6	Other Biomass Gas (includes digester gas, methane, and other biomass gasses) (specify in Comment Section of SCHEDULE 9)					
	SUN	N/A	0	0	Solar				
	WND	N/A	0	0	Wind				
	GEO	N/A	0	0	Geothermal				
All Other Renewable	WV	N/A	0	0	Water used in Wave Buoy Hydrokinetic Technology				
Fuels	CUR	N/A	0	0	Water used in Current Hydrokinetic Technology				
	TID	N/A	0	0	Water used in Tidal Hydrokinetic Technology				
	WAT	N/A	0	0	Water at a Conventional Hydroelectric Turbine				
			Α	II Other Fu	els				
	WAT	MWh	0	0	Pumping Energy for Reversible (Pumped Storage) Hydroelectric Turbine				
	N/A	MWh	0	0	Compressed Air				
	NUC	N/A	0	0	Nuclear Uranium, Plutonium, Thorium				
	PUR	N/A	0	0	Purchased Steam				
All Other Fuels		0	Waste heat not directly attributed to a fuel source (WH should only be reported where the fuel source for the waste heat is undetermined, and for combined cycle steam turbines that do not have supplemental firing.)						
	TDF	tons	16	32	Tire-derived Fuels				
	ОТН	N/A	0	0	Specify in Comment Section of SCHEDULE 9.				

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Plant Name:	
Plant ID:	State: Reporting Month/Year:
GLOSSARY	The glossary for this form is available online at the following URL: http://www.eia.gov/glossary/index.html

SANCTIONS

The timely submission of Form EIA-923 by those required to report is mandatory under Section 13(b) of the Federal Energy Administration Act of 1974 (FEAA) (Public Law 93-275), as amended. Failure to respond may result in a penalty of not more than \$2,750 per day for each civil violation, or a fine of not more than \$5,000 per day for each criminal violation. The government may bring a civil action to prohibit reporting violations, which may result in a temporary restraining order or a preliminary or permanent injunction without bond. In such civil action, the court may also issue mandatory injunctions commanding any person to comply with these reporting requirements. Title 18 U.S.C. 1001 makes it a criminal offense for any person knowingly and willingly to make to any Agency or Department of the United States any false, fictitious, or fraudulent statements as to any matter within its jurisdiction.

REPORTING BURDEN

Public reporting burden for this collection of information is estimated to average 2.7 hours per response for monthly respondents, 3.2 hours per response for annual respondents, and 3.4 hours per response for annual respondents with boiler level data, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. The weighted average burden for the Form EIA-923 is 2.8 hours per response. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to the EIA, Statistics and Methods Group, EI-70, 1000 Independence Avenue S.W., Forrestal Building, Washington, D.C. 20585-0670; and to the Office of Information and Regulatory Affairs, Office of Management and Budget, Washington, D.C. 20503. A person is not required to respond to the collection of information unless the form displays a valid OMB number.

DISCLOSURE OF INFORMATION

The "Total Delivered Cost" of coal, natural gas, and petroleum received at nonutility power plants and "Commodity Cost" information for all plants in SCHEDULE 2 and "Previous Month's Ending Stocks" and "Stocks at End of Reporting Period" information reported on SCHEDULE 4 will be protected and not disclosed to the extent that it satisfies the criteria for exemption under the Freedom of Information Act (FOIA), 5 U.S.C. §552, the Department of Energy (DOE) regulations, 10 C.F.R. §1004.11, implementing the FOIA, and the Trade Secrets Act, 18 U.S.C. §1905. All other information reported on Form EIA-923 is considered public information and may be publicly released in company identifiable form.

The Federal Energy Administration Act requires the EIA to provide company-specific data to other Federal agencies when requested for official use. The information reported on this form may also be made available, upon request, to another component of the Department of Energy (DOE), to any Committee of Congress, the Government Accountability Office, or other Federal agencies authorized by law to receive such information. A court of competent jurisdiction may obtain this information in response to an order. The information may be used for any non-statistical purposes such as administrative, regulatory, law enforcement, or adjudicatory purposes.

Disclosure limitation procedures are applied to the protected statistical data published from SCHEDULES 2 and 4 on Form EIA-923 to ensure that the risk of disclosure of identifiable information is very small.

POWER PLANT OPERATIONS REPORT

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NOTICE: This report is **mandatory** under the Federal Energy Administration Act of 1974 (Public Law 93-275). Failure to comply may result in criminal fines, civil penalties and other sanctions as provided by law. For further information concerning sanctions and data protections see the provision on sanctions and the provision concerning confidentiality of information in the instructions. **Title 18 USC 1001 makes it a criminal offense for any person knowingly and willingly to make to any Agency or Department of the United States any false, fictitious, or fraudulent statements as to any matter within its jurisdiction.**

	SCHEDU	LE 1. IDENTIFICAT	ION		
	<u> </u>	Survey Contact			
First Name:		Last Nan	ne:		
Title:		_			
	n):				
•					
		f Contact Person fo			
First Name:					
	າ):				
	·/·				
<u> </u>		Report For			
Company Name:					
Company Name.					
Plant Name:			Regulated	☐ Yes	□ No
Plant ID: Plant	County:		CHP	☐ Yes	□ No
Address:			CHP Efficiency		%
	State:		Zip Code:		
Reporting Month/Year:					
		Contacts			
For questions related to E-filing:		CNEAFHelpcenter@e	eia.gov	202-586	-9595
For questions about the data requi					
Schedules 1 & 4:	Chris Cassar	christopher.cassar@e		202-586	
Schedule 2:	Rebecca Peterson	rebecca.peterson@ei	a.gov	202-586	
Schedules 3 & 5:	Schedules 3 & 5: Ron Hankey <u>rhank</u>			202-586	-2630
Schedules 6, 7, & 8:	channele.wirman@eia	a.gov	202-586	-5356	
EIA-923 Fax:					
EIA-923 Mailbox:	EIA-923@eia.gov				

POWER PLANT OPERATIONS REPORT

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Form EIA-923 (2011) RE			PORT		App	roval Expires: 1 den: 2.8 Hours	2/31/2013
Plant Name:							
Plant ID:	Rep	orting Month/	/Year	:			
	TRACT	T AND QUALI INFORMATIO fueled plants	N, RECEIPT	rs, and cos	STS	PLANT LEVEL	
☐ No Receipts (If applicable, please check.)			a fuel tolling a		ement in place for	this plant? (If
Contract Informatio	n		Re	eceipts		Cost p	er Unit
	contract Type	Contract Expiration Date	Energy Source	Quantity Purchased (solids in tool liquids in bard gases in Me	d ns, rels,	Total Delivered Cost (cents per MMBtu, to the nearest 0.1)	Commodity Cost (Coal, Natural Gas) (cents per MMBtu, to the nearest 0.1)

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Plant Name:			
Plant ID:	State:	Reporting Month/Year: _	

SCHEDULE 2. PAGE 2. COST AND QUALITY OF FUEL PURCHASES - PLANT LEVEL **QUALITY OF FUEL AND TRANSPORTATION** For fossil-fueled plants 50 megawatts and above

Purchases			Quality of Fuel as Received Fuel Transportation				rtation			
Carried For	ward from S	Schedule 2. Pa	age 1.	All Fuels	Coal, Pet Coke, RFO, and WO	Coal and Pet Coke	Coal Only	Natural Gas		Pet Coke, nd Oil
Fuel Supplier Name	Contract Type	Energy Source	Quantity Purchased	Heat Content (MMBtus to nearest 0.001)	Sulfur Content (percent weight to nearest 0.01)	Ash Content (percent weight to nearest 0.1)	Mercury Content (ppm to nearest 0.001 or enter 9 if not available)	Firm or Interruptible	Predomin ant Mode (Mode used to transport fuel over the longest distance)	Secondary Mode (Mode used to transport fuel over the second- longest distance)

POWER PLANT OPERATIONS REPORT

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Plant Name:			
Plant ID:	State:	Reporting Month/Year: _	

SCHEDULE 2. PAGE 3. COST AND QUALITY OF FUEL PURCHASES - PLANT LEVEL **COAL MINE INFORMATION** For fossil-fueled plants 50 megawatts and above

Purchases Information				Coal Mine Information				
Carried For	Carried Forward from Schedule 2. Page 1.							Coal Mine
Fuel Supplier Name	Contract Type	Energy Source	Quantity Purchased	Coal Mine State	Coal Mine MSHA ID	Coal Mine Type	Coal Mine Name	County (for imported coal, enter IMP)

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TOTHI LIA-323 (2011)	REFORT	Burden: 2.8 Hours	
Plant Name:			
Plant ID:	State: Report	ing Month/Year:	

SCHEDULE 3. PART A. BOILER INFORMATION FOR STEAM-ELECTRIC ORGANIC-FUELED PLANTS — FUEL CONSUMPTION

This schedule will be completed by plants with a total steam turbine capacity of **10 megawatts and above** that burn organic fuels. Report only fuels consumed in the boilers, or for HRSGs in duct burners. If no fuel is consumed for the HRSG at combined cycle plants, report zero. Do not leave blank. Report consumption in combustion turbines or IC engines on SCHEDULE 3. PART B.

If this does not apply, go to SCHEDULE 3. PART B.

Complete a separate row for each Boiler ID.

Did any boiler produce steam for purposes other than electric power generation during this reporting period? (If applicable, please check.)

Prim Move Cod	_{er} Bo	oiler ID	Boiler Status	Energy Source (See Table 8 on pages 22 through 23 in the Instructions.)	Quantity Consumed (Enter zero when a fuel has no consumption for this reporting period)	Type of Physical Units (tons, barrels, or Mcf)	Average Heat Content (as burned, to nearest 0.001 MMBtu per ton, barrel, or Mcf)	Sulfur Content (coal, pet coke, RFO, and WO, to nearest 0.01%)	Ash Content (coal and PC only, to nearest 0.1%)

If you reported the category of OTH, OBS, OBG, OBL, or OG in the Energy Source column, please identify t	he category and
specific fuel name below. For example, "The OBG gas is methane."	
···	

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			-	Burden: 2.8 Hou	rs
Plant Name:					
Plant ID:		S	tate: Reporting Mor	nth/Year:	
	SCHEDULE 3. I	PART B. FU	EL CONSUMPTION – PRIME	MOVER LEVEL	
turbines, IC engines, fuel or prime movers of a single ty number. Report pumping or Complete a separate row	cells, pumped stora ype. In other words energy in megawat for each Prime Mo	ge hydroeled s, all natural g thours for pu ver Type. (S	a and combined cycle steam ca etric units and compressed air u gas consumed by all combustic imped-storage plants and comp ee Table 7 of the instructions.)	units. Aggregate qua on gas turbines should oressed air units.	ntity consumed for
Prime Mover Code	Energy So (See Table 8 on through 23	pages 22 in the	Quantity Consumed (Enter zero when a fuel has no consumption for this reporting period.)	Type of Physical Units (tons, barrels,	Average Heat Content (MMBtu per ton, barrel,
	Instr□ctio	ins.)		or Mcf)	or Mcf)
If you reported the category specific fuel name below.			or OG in the Energy Source s methane."	column, please ident	ify the category and

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Form EIA-923 (2	2011)		REI	PORT		al Expires: 12/3 ² 2.8 Hours	I/2013
Plant Name:							
Plant ID:			_ State:	Reporting	Month/Year:		
SCHI	EDULE 4. FOSS		KS AT THE END or Coal, Oil, and	-		AND DATA BALA	/NCE
Coal (tons) Residual oil Distillate-typ Petroleum c Include back-up Include start-up a Do not report sto Stocks held off-s central stora 9 of this form Enter zero if the Enter adjustment comment to	roke (tons) fuels. and flame-stabilized by the forwaste coasite that cannot be age site must be remarked by the following the fo	fuel oils) (barrels diesel oil, No. 2 of cation fuels. al, natural gas, one assigned to an reported separate cations. but the cation in the adjusting the cation fuels.	oil, jet fuel and ke r wood waste. Do individual plant a ely. New sites sh e blank. pe positive or neg	o enter a comme re to be reported rould be indicated ative. See instru	as stocks held a d in the Commen	t a central storag t Section, located	e site. Each I in SCHEDULE
Energy Source (See Table 8 in the Instructions.)	Type of Physical Units (tons, barrels, or Mcf)	Previous Month's Ending Stocks (1)	Current Month's Receipts (2)	Current Month's Consumption (3)	Ending Stocks (4)	Adjustment to Stocks* (5)	Balance** (6) 4=(1+2-3+5)
*Explain any adji	ustments below.						
Adjustmer (from Column 5	_	Energy Source			Explanation		
will appear in col	lumn (6). If the ba		onsumption plus o, provide an exp		ment should equ	al Ending Stocks	. The balance
Balance (from Column 6	F	Energy Source			Explanation		

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Plant Name:			
Plant ID:	State:	Reporting Month/Year: _	

SCHEDULE 5. PART A. GENERATOR INFORMATION FOR STEAM-ELECTRIC ORGANIC-FUELED PLANTS

This schedule will be completed ONLY for generators at steam-electric organic-fueled plants with a total steam turbine capacity of 10 megawatts and above. Report generation for all other types of prime movers (combustion turbines, IC engines, wind, or hydroelectric turbines, and compressed air units.), and steam turbine plants with less than 10 megawatts total capacity or fueled by nuclear, solar, geothermal, or other energy sources on SCHEDULE 5. PARTS B or C. Generation reported on SCHEDULE 5, Part A corresponds to the fuel consumption reported on SCHEDULE 3. Part A.

Industrial or Commercial Sector plants may report gross generation ONLY if net generation is not measured (see instructions for definition of net generation).

Complete a separate row for each Generator ID. See Generator ID information in the instructions for Schedule 5. Part A.

Prime Mover Code	Generator ID	Generator Status	Gross Generation (MWh)	Net Generation (MWh)

U.S. Department of Energy U.S. Energy Information Administration

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Plant Name:		
Plant ID:	State: Reporting Month	ı/Year:
SCHEDUL	E 5. PART B. PRIME MOVER LEVEL GENE	:RATION
megawatts, by combined-cycle plants whose combustion turbines, pumped-storage hydrocorresponds to the fuel consumption reported in the applicable Gross Generation or Net Gexample, enter the total generation from all generation ONLY if net generation is not me	team-electric organic-fueled plants with a total e steam portion of the operation is under 10 M pelectric turbines, and compressed air units. Out on SCHEDULE 3. Part B. Seneration cell, enter the aggregate generation combustion turbines. Industrial or Commercial easured (see instructions for definition of net gover Type. (See Table 7 of the instructions.)	AW, and all IC engines, fuel cells, Generation reported on this schedule on for prime movers of a single type. For all Sector plants may report gross
Prime Mover Code	Gross Generation (MWh)	Net Generation (MWh)

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Plant Name:			
Plant ID:	State:	Reporting Month/Year:	

SCHEDULE 5. PART C. GENERATION FROM NUCLEAR AND OTHER NONCOMBUSTIBLE ENERGY SOURCES

This schedule will be completed by all nuclear plants and by all wind, solar, geothermal, hydroelectric, or other plants where the energy source is noncombustible, such as purchased steam or waste heat. No fuel consumption is required for these types of plants. Report generation by energy source for nuclear, wind, solar, geothermal, conventional hydroelectric and miscellaneous sources such as purchased steam or waste heat. Do not report generation at a combined-cycle plant. All combined-cycle generation is reported on SCHEDULE 5. PART A or B. Report nuclear data by generating unit.

In the applicable Gross Generation or Net Generation cell, enter the aggregate generation for prime movers of a single type. For example, enter the total generation from all combustion turbines. Industrial or Commercial Sector plants may report gross generation only if net generation is not measured (see instructions for definition of net generation).

Complete a separate row for each Prime Mover Type. (See Table 7 of the instructions.)

Prime Mover Code	Energy Source	Unit Code (nuclear)	Gross Generation (MWh)	Net Generation (MWh)

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Plant Name:							
Plant ID:	State: Reporting Mont	:h/Year:					
SCHEDULE 6. NONUTILITY ANNUAL SOURCE AND DISPOSITION OF ELECTRICITY							
SCHEDULE 6 collects calendar year data (no monthly detail). Report all generation in megawatthours (MWh) rounded to a whole number.							
Source of Electricity Disposition of Electricity							
(1) Gross Generation (Annual)	(4) Station Use						
(2) Other Incoming Electricity		lustrial and Commercial CHP and non-CHP)					
	(6) Total Facility Us	se (4 + 5)					
	(7) Retail Sales to	Ultimate Customers					
	(8) Sales for Resal	е					
	(9) Other Outgoing	Electricity					
(3) Total Sources (1 + 2)	(10) Total Disposition	on (6 + 7 + 8 + 9)					
Total	Sources must equal Total Disposition (3	= 10)					

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		Burden: 2.8 Hours					
Plant Name:							
Plant ID:	State: Reporting Month/	Year:					
SCHEDULE	SCHEDULE 7. ANNUAL REVENUES FROM SALES FOR RESALE						
SCHEDULE 7 is to be completed by responded Sales for Resale.	SCHEDULE 7 is to be completed by respondents who entered a positive amount on SCHEDULE 6, Disposition of Electricity, Item 8, Sales for Resale.						
Sales for Resale is energy supplied to other marketers, or other entities for resale to end	electric utilities, cooperatives, municipalities, F-use consumers.	ederal and State electric agencies, power					
Annual Revenues from Sales for Resale ((in thousand dollars):						

units

Other (specify via footnote on SCHEDULE 9)

Steam Sales (MMBtu)

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Plant Name:									
Plant ID:	Plant ID: State: Reporting Month/Year:								
	SCHEDULE	E 8. ANNUA	AL ENVIRON	MENT <i>A</i>	AL INFORM	IATION			
SCHEDULE 8. PARTS A through F a with a total steam turbine capacity of A.). Plants with a total steam turbine	10 megawa	atts and ab	ove (plants tl	hat repo	rted on SC	HEDULE 3.	Part A and		
Sometimes are seen as the second seco			ANNUAL B				Itons). Re	oort sales o	of steam
in million Btu (MMBtu). If actual da							, ,		
□ NO BYPRODUCTS									
		Disposal			Sale or Beneficial Use			Storage	
Byproduct	On-Site Landfill	On-Site Ponds	Disposal Off-site	Sold	Used On-site	Used Off-site	Stored O□-site	Stored Off-site	Total
Fly ash from standard boiler/PCD units									
Fly ash from un⊟ts with dry FGD									
Fly ash from FBC units									
Bottom ash from standard boiler units									
Bottom (bed) ash from FBC units									
FGD Gypsum									
Other FGD byproducts									
Ash from coal gasification (IGCC)									

U.S. Department of Energy

Amount

Form Approval

U.S. Energy Information Administration OMB No. 1905-0129 **POWER PLANT OPERATIONS** Form EIA-923 (2011) REPORT Approval Expires: 12/31/2013 **Burden: 2.8 Hours** Plant Name: Plant ID: _____ State: _____ Reporting Month/Year: _____ SCHEDULE 8. PART B. FINANCIAL INFORMATION RELATED TO COMBUSTION BYPRODUCTS If actual data are not available, provide an estimated value. Operation and Maintenance (O&M) Expenditures During Year (Thousand Dollars) (4) (3)(5) (6)Water (2) (1) Type Flue Gas **Other Pollution** Total Fly Ash **Bottom Ash** Pollution Desulfurization Abatement (1+2+3+4+5)Abatement Collection Disposal Other Capital Expenditures for New Structures and Equipment During Year, Excluding Land and Interest Expense (Thousand Dollars) (8)(7)(10)(9)**Air Pollution** Water Pollution Type **Solid/Contained Waste Other Pollution Abatement** Abatement Abatement Amount **Byproduct Sales Revenue During Year** (Thousand Dollars) (15)(13)(14)(16)Fly and Bottom Flue Gas Other (11)(12)Total **Type** Fly Ash **Bottom Ash** Ash Sold Desulfurization **Byproduct** (11+12+13+14+15)Intermingled **Byproducts** Revenue

POWER PLANT OPERATIONS REPORT

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10/11/ EIA 320 (2011)		AL.	-1 O.K.1	Burden: 2.8 Hours			
Plant Name:							
Plant ID:							
SCHEDULE	8. PART C.	BOILER INFORMAT	TION NITROGEN OXIDE	EMISSION CONT	ROLS		
Complete a separate row for ea		D as reported on For	m EIA-860, "Annual Elec	tric Generator Rep	ort."		
☐ No NO _x Controls							
	NO _x Co	ntrol In-Service	NO _x Em	NO _x Emission Rate (lbs/MMBtu)			
Boiler ID	(hours)		Entire Year	May	through September		

POWER PLANT OPERATIONS REPORT

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Plant Name:		
Plant ID:	State:	Reporting Year:

SCHEDULE 8, PART D. MONTHLY COOLING SYSTEM INFORMATION

Reporting Month:

Note: All steam-electric plants of 100 MW nameplate capacity or greater, including combined cycle plants and nuclear power plants, must respond to this schedule. Cooling System ID must match the ID as reported on Form EIA-860, "Annual Electric Generator Report." **Complete a separate page for each month.** Complete a separate row for each cooling system.

Cooling		Monthly Amount of		Average Monthly Rate of Cooling Water (in cubic feet per second, to the nearest 0.1 ft ³)				Cooling Water Temperature at Intake (degrees Fahrenheit)		Cooling Water Temperature at Discharge Outlet (degrees Fahrenheit)			
System ID or Plant	Cooling System Status	Chlorine Added to Cooling Water (1000 lbs) Hours in Service	Diversion	Withdrawal	Discharge	Consumption	Measured or Estimated? (If any flow rate data was estimated, select methodology.)	Monthly	Maximum Temperature for the Month	Average Monthly Temperature	Maximum Temperature for the Month	Measured or Estimated? (If any temperature data was estimated, select methodology.)	

POWER PLANT OPERATIONS REPORT

Form Approval OMB No. 1905-0129

Approval Expires: 12/31/2013

					Burden: 2.8 Hours			
Plant Name:								
Plant ID:			State:	F	Reporting Year:			
SCHEDULE 8. PART E. FLUE GAS PARTICULATE COLLECTION INFORMATION								
☐ Does not apply. Complete a separate row for each flue gas particulate collector.								
Flue Gas Particulate FGP Collector Ho		Hours in	Typical Particulate Emissions Rate	Removal Efficiency of Particulate Matter (nearest 0.1% by weight)				
Collector ID Status Service	Service	(to the nearest 0.01 lb/MMBtu)	At Annual Operating Factor	At 100% Load or Tested Efficiency	Date of Most Recent Efficiency Test (e.g., 12-2005)			

U.S. Department of Energy Form Approval **U.S. Energy Information Administration** OMB No. 1905-0129 POWER PLANT OPERATIONS REPORT Form EIA-923 (2011) Approval Expires: 12/31/2013 **Burden: 2.8 Hours** Plant Name: _____ State: _____ Plant ID: _____ Reporting Year: SCHEDULE 8. PART F. FLUE GAS DESULFURIZATION UNIT INFORMATION – ANNUAL OPERATIONS Note: Flue Gas Desulfurization ID must match the ID as reported on Form EIA-860, "Annual Electric Generator Report." ☐ Does not apply. Complete a separate row for each Flue Gas Desulfurization Unit. **ANNUAL OPERATIONS** Removal Efficiency of Sulfur Dioxide (nearest 0.1% by wt) **Quantity of FGD Electrical Energy** Flue Gas **FGD Unit** Hours In-Sorbent Used **Desulfurization Unit** Consumption Status Service (to the nearest 0.1 Date of Most Recent Efficiency ID At Annual Operating At 100% Load or (MWh) thousand tons) Factor Tested Efficiency Test (e.g., 12-2005) OPERATION AND MAINTENANCE EXPENDITURES DURING YEAR, EXCLUDING ELECTRICITY (THOUSAND DOLLARS) Flue Gas **Feed Materials** Labor and Maintenance, Materials, **Waste Disposal Desulfurization Unit** Total and All Other Costs and Chemicals Supervision ID

U.S. Department of Energy

POWER PLANT OPERATIONS

Form Approval OMB No. 1905-0129

Form EIA-9	23 (2011)	non Admin	istration	REPORT	Approval Expires: 12/31/2013 Burden: 2.8 Hours				
Plant Name:	i								
Plant ID:				State: Reporting Mor	nth/Year:				
SCHEDULE 9. COMMENTS									
Comment Section: Explain any unusual values, occurrences, or changes in ownership.									
Schedule	edule Part Item Comment								
Changes in Ownership (Provide name of purchaser and date sold.)									