U.S. J	t Statistics & Analysis Energy Information inistration	Form EIA-860M MONTHLY UPDATE TO ANNUAL ELECTRIC GENERATOR REPORT INSTRUCTIONS	Approval: OMB No. 1905-0129 Approval Expires: xx/xx/xxxx Burden: 0.3 Hours			
PURPOSE	Form EIA-860M colleg	cts data on the status of:				
	a) Proposed nev months;	v generators scheduled to begin commercial o	operation within the subsequent 12			
	b) Existing gene	rators scheduled to retire from service within t	he subsequent 12 months; and			
	c) Existing gene one month.	rators that have proposed modifications that a	re scheduled for completion within			
		this form appear in the EIA publication, <i>Elec</i> urrent status and trends of the electric power				
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 subsequent 12 months, (2) an existing generator scheduled to retire from service within the subsequent 12 months, or (3) an existing generator with a proposed modification scheduled for completion within one month of the reporting period (month).					
RESPONSE DUE DATE	IE Reporting on the EIA-860M must begin when either a new generator is within 12 months of enter commercial operation, an existing generator proposed for retirement is within 12 months of be retired from service, or a proposed modification to an existing generator is within one month completion.					
	The status information provided on the EIA-860M should be the status of the generator as of the end of the data reporting period. The report is due on approximately the 15 th day of the month following the data reporting period.					
METHODS OF FILING		ectronically using EIA's secure e-filing sys formation against unauthorized access during				
RESPONSE	PONSE If you have not registered with e-file Single Sign-On (SSO) system, send an email assistance to: <u>EIA-860M@eia.gov</u> .					
	If you have registered with SSO, log on at https://signon.eia.doe.gov/ssoserver/login.					
	If you need an alternate means of filing your response, contact the Help Center.					
	Please retain a compl	eted copy of this form for your files.				
CONTACTS		n about the data requested on this form, email vey managers listed below.	EIA-860M@eia.gov (preferred) or			
	Suparna Ray, (202) 5 Raymond Chen, (202) Alex Mey, (202) 287-5) 287-6532				



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ITEM-BY-ITEM INSTRUCTIONS

SCHEDULE 1. IDENTIFICATION

- 1. **Survey Contact:** Verify the contact's name, title, address, telephone number, cell phone number, fax number and email address.
- 2. **Supervisor of Survey Contact:** Verify the supervisor's name, title, address, telephone number, cell phone number, fax number and email address.
- 3. **Entity Details:** Verify the legal name of the entity, the entity identification number and the reporting month and year.

If any of the information described above is incorrect or missing, provide the correct information in SCHEDULE 4. COMMENTS.

SCHEDULE 2. UPDATES TO PROPOSED GENERATORS

Verify the plant identification number, plant name and plant state at the top of the schedule. If any of the information is incorrect or missing, provide the correct information in SCHEDULE 4. COMMENTS.

If the pre-printed data are correct and no changes need to be made, check the "Check if no change" box and proceed to SCHEDULE 3. UPDATES TO PROPOSED CHANGES TO EXISTING GENERATORS, if applicable. If any of the pre-printed data are incorrect or missing, provide the correct data in the "This Month's Updates" column and select the appropriate reason for change in line 9.

1. For line 2, item 1, verify the Status Code by using the table below.

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

2. For line 2, item 2, verify the Prime Mover by using the table below.

Prime Mover Code	Prime Mover Description
BA	Energy Storage, Battery
CE	Energy Storage, Compressed Air
СР	Energy Storage, Concentrated Solar Power
FW	Energy Storage, Flywheel
PS	Energy Storage, Reversible Hydraulic Turbine (Pumped Storage)
ES	Energy Storage, Other (explain in SCHEDULE 4. COMMENTS)
ST	Steam Turbine, including nuclear, geothermal and solar steam (does
	not include combined cycle)
GT	Combustion (Gas) Turbine (includes jet engine design)
IC	Internal Combustion Engine (diesel, piston, reciprocating)
СА	Combined Cycle Steam Part



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<u>AT</u>	Combined Quels Combustion Truthing Dout (type of each or called much
СТ	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 a single generator)
CC	Combined Cycle Total Unit (use only for plants/generators that are in
	planning stage, for which specific generator details cannot be provided)
HA	Hydrokinetic, Axial Flow Turbine
HB	Hydrokinetic, Wave Buoy
НК	Hydrokinetic, Other (explain in SCHEDULE 4. COMMENTS)
HY	Hydroelectric Turbine (includes turbines associated with delivery of
	water by pipeline)
BT	Turbines Used in a Binary Cycle (including those used for geothermal
	applications)
PV	Photovoltaic
WT	Wind Turbine, Onshore
WS	Wind Turbine, Offshore
FC	Fuel Cell
OT	Other (explain in SCHEDULE 4. COMMENTS)

- 3. For line 2, item 3, verify the Nameplate Capacity (MW). 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 2, item 4, verify the Net Summer Capacity (MW).
- 5. For line 2, item 5, verify the Net Winter Capacity (MW)
- 6. For line 2, item 6, verify the energy source that is expected to be used in the largest quantity (Btus) to power the generator (i.e. the Primary Energy Source). 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 or reject heat.
- 7. For line 2, item 7, verify the energy source that is expected to be used in the second largest quantity (Btus) to power the generator (i.e. Secondary Energy Source). 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 or reject heat.
- 8. For line 2, item 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 2, item 9, enter Reason for Change in status, prime mover, energy source or change in scheduled commercial operation date. Check all of the reasons that apply; if "Other," explain in SCHEDULE 4, COMMENTS.

On line 3a, **Is the output from this generator part of a net metering agreement?** Indicate whether the output from this generator is part of an arrangement that allows output from renewable resources to be credited against a customer's electric bill. For purposes of this question do not include virtual net metering agreements (see the instructions to line 3c for the definition of virtual net metering).

On line 3b, **If the output from this generator is part of a net metering agreement how much DC capacity (in MW) is part of the net metering agreement (exclude known virtual net metering)?** Specify the amount of DC capacity from the generator that is part of a net metering agreement. For purposes of this question do not include capacity that is part of a known virtual



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net metering agreement.

On line 3c, **Is the output from this generator part of a known virtual net metering agreement?** Indicate whether the output from this generator is part of a known billing arrangement that allows multiple energy customers to receive net metering credit from a shared onsite or remote renewable energy system much as if it was located behind the customer's own meter.

On line 3d, **If the output from this generator is part of a known virtual net metering agreement how much DC capacity (in MW) is part of the known virtual net metering?** Specify the amount of DC capacity from the generator that is part of a known virtual net metering agreement.

SCHEDULE 3. UPDATES TO PROPOSED CHANGES TO EXISTING GENERATORS

Verify the plant identification number, plant name and plant state at the top of the schedule. If any of the information is incorrect or missing, provide the correct information in SCHEDULE 4. COMMENTS.

If the pre-printed data are correct and no changes need to be made, check the "Check if no change" box and choose "Yes" for the corresponding planned modification to confirm that the "Last Data as Reported to EIA" is still correct. If any of the pre-printed data are incorrect or missing, provide the correct data in the "This Month's Updates" column, and select the appropriate reason for change in line 25.

Existing Information

- 10. For line 2, item 1, verify the Existing Prime Mover Code. Use the Prime Mover codes from the table in the instructions to Schedule 2.
- 11. For line 2, item 2, verify the energy source that is used in the largest quantity (Btus) to power the generator (i.e. the Primary Energy Source). Use Energy Source codes from the table in these instructions.
- 12. For line 2, item 3, verify the energy source that is used in the second largest quantity (Btus) to power the generator (i.e. Secondary Energy Source). Use Energy Source codes from the table in these instructions.
- 13. For line 2, item 4, verify the Existing Nameplate Capacity (MW).
- 14. For line 2, item 5, verify the Existing Net Summer Capacity (MW).
- 15. For line 2, item 6, verify the Existing Net Winter Capacity (MW).

Uprates

If no uprates are reported, skip to the next section.

- 16. For line 2, item 7, if the Uprate is still planned, choose "Yes." If the Uprate is canceled, choose "Uprate Canceled." If the Uprate is completed, choose "Uprate Completed."
- 17. For line 2, item 8, verify the Planned Uprate Net Summer Capacity (MW).
- 18. For line 2, item 9, verify the Planned Uprate Net Winter Capacity (MW).
- 19. For line 2, item 10, verify the Planned Uprate Month/Year. If the Planned Uprate Month/Year has changed, enter changes under "This Month's Update" column. If the Planned Uprate was canceled on line 2, item 7, then the Planned Uprate Month/Year should be removed and left blank.



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Derates

If no derates are reported, skip to the next section.

- 20. For line 2, item 11, if the Derate is still planned, choose "Yes." If the Derate is canceled, choose "Derate Canceled." If the Derate is completed, choose "Derate Completed."
- 21. For line 2, item 12, verify the Planned Derate Net Summer Capacity (MW).
- 22. For line 2, item 13, verify the Planned Derate Net Winter Capacity (MW).
- 23. For line 2, item 14, verify the Planned Derate Month/Year. If the Planned Derate Month/Year has changed, enter changes under "This Month's Update" column. If the Planned Derate was canceled on line 2, item 11, then the Planned Derate Month/Year should be removed and left blank.

New Net Capacity

If no Uprates or Derates are reported, skip to the next section.

- 24. For line 2, item 15, verify the New Net Summer Capacity (item 5 + item 8 item 12).
- 25. For line 2, item 16, verify the New Net Winter Capacity (item 6 + item 9 item 13).

Repowering

- 26. For line 2, item 17, if the Repowering is still planned, choose "Yes." If the Repowering is canceled, choose "Repower Canceled." If the Repowering is completed, choose "Repower Completed."
- 27. For line 2, item 18, verify the New Prime Mover Code. For existing generators with a Repowering, enter the Prime Mover Code that is applicable once the Repowering is completed, if it will be different from the current Prime Mover Code.
- 28. For line 2, item 19, verify the New Energy Source. For existing generators with a Repowering, enter the New Energy Source that is applicable once the Repowering is completed, if it will be different from the current Energy Source.
- 29. For line 2, item 20, verify the Planned Repower Month/Year. If the Planned Repower Month/Year has changed, enter changes under "This Month's Update" column. If the Planned Repower was canceled on line 2, item 17, then the Planned Repower Month/Year should be removed and left blank.

Retirement

- 30. For line 2, item 21, if the Retirement is still planned, choose "Yes." If the Retirement is canceled, choose "Retirement Canceled." If the Retirement is completed, choose "Retirement Completed."
- 31. For line 2, item 22, verify the Planned Retirement Month/Year. If the Planned Retirement Month/Year has changed, enter changes under "This Month's Update" column. If the Planned Retirement was canceled on line 2, item 21, then the Planned Retirement Month/Year should be removed and left blank.

Other Modifications

- 32. For line 2, item 23, if the Other Modification is still planned, choose "Yes." If the Other Modification is canceled, choose "Other Mod. Canceled." If the Other Modification is completed, choose "Other Mod. Completed." Specify the type of Other Modification that was completed in SCHEDULE 4. COMMENTS.
- 33. For line 2, item 24, verify the Planned Other Modifications Month/Year. If the Planned Other Modifications Month/Year has changed, enter changes under "This Month's Update" column. If the Planned Other Modification was canceled on line 2, item 23, then the Planned Other



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Modification Month/Year should be removed and left blank.

Reason for Change

34. For line 2, item 25, enter Reason for Change in the data. Check all of the reasons that apply, if "Other," explain in SCHEDULE 4. COMMENTS

ENERGY SOURCE CODES

E I. T	Energy	Unit	Higher Heating Value Range		E	
ниет туре	Code Label MMBtu MMBtu Lower Upper		- Energy Source Description			
			Fossil	Fuels		
	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	
	SGC	Mcf	0.2	0.3	Coal-Derived Synthetic Gas	
	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	
	PG	Mcf	2.5	2.75	Gaseous Propane	
Petroleum Products	RFO	barrels	5.8	6.8	Residual Fuel Oil (including No. 5, and No. 6 fuel oils, and bunker C fuel oil)	
	SGP	Mcf	0.2	1.1	Synthetic Gas from Petroleum Coke	
	WO	barrels	3.0	5.8	Waste/Other Oil (including crude oil, liquid butane, liquid propane, naphtha, oil waste, re-refined motor oil, sludge oil, tar oil, or other petroleum-based liquid wastes)	
Network Co.	BFG	Mcf	0.07	0.12	Blast Furnace Gas	
Natural Gas and Other	NG	Mcf	0.8	1.1	Natural Gas	
Gases	OG	Mcf	0.32	3.3	Other Gas (specify in SCHEDULE 7. COMMENTS)	
Renewable Fuels						
Solid	AB	tons	7	18	Agricultural By-Products	
Renewable	MSW	tons	9	12	Municipal Solid Waste	
Fuels	OBS	tons	8	25	Other Biomass Solids (specify in SCHEDULE 7. COMMENTS)	
- E - E	WDS	tons	7	18	Wood/Wood Waste Solids	



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(including paper pellets, railroad ties, utility poles, wood chips, bark, and wood waste solids)			

	Energy	Unit	Higher Heating Value Range					
Fuel Type	Source Code	Label	MMBtu Lower	MMBtu Upper	- Energy Source Description			
	Fossil Fuels							
	OBL	barrels	3.5	4	Other Biomass Liquids (specify in SCHEDULE 4. COMMENTS)			
Liquid Renewable	SLW	tons	10	16	Sludge Waste			
(Biomass)	BLQ	tons	10	14	Black Liquor			
` Fuels ´	WDL	barrels	8	14	Wood Waste Liquids excluding Black Liquor (including 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	Other Biomass Gas (including digester gas, methane, and other biomass gases; specify in SCHEDULE 4. COMMENTS)			
	SUN	N/A	0	0	Solar			
	WND	N/A	0	0	Wind			
	GEO	N/A	0	0	Geothermal			
All Other Renewable Fuels	WAT	N/A	0	0	Water at a Conventional Hydroelectric Turbine, and water used in Wave Buoy Hydrokinetic Technology, Current Hydrokinetic Technology, and Tidal Hydrokinetic Technology			
All Other Fuels								
	WAT	MWh	0	0	Pumping Energy for Reversible (Pumped Storage) Hydroelectric Turbine			
	NUC	N/A	0	0	Nuclear (including Uranium, Plutonium, and 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.)			

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		TDF	Tons	16	32	Tire-derived Fuels
		MWH	MWh	0	0	Electricity used for energy storage
		ОТН	N/A	0	0	Specify in SCHEDULE 4. COMMENTS
GLOSSARY	The glossary fo http://www.eia.			nline at the	following UF	RL:
SANCTIONS	The timely submission of Form EIA-860M by those required to report is mandatory under 15 U.S.C. §772(b), as amended. Failure to respond may result in a civil penalty of not more than \$10,633 each day for each 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.					
REPORTING BURDEN	response, inclu maintaining the comments rega including sugg of Survey Deve Independence Regulatory Affa	iding the ti e data need arding this estions for elopment a Avenue, S airs, Office	me for reviewi ded, and comp burden estima reducing this and Statistical SW, Washingto of Manageme	ng instruction oleting and a te or any o burden, to t Integration, on, DC 2058 ent and Bud	ons, searchir reviewing the ther aspect of he U.S. Ene Mail Stop El 35-0670; and get, Washing	nated to average 0.3 hours per ng existing data sources, gathering and e collection of information. Send of this collection of information, rgy Information Administration, Office I-21 Forrestal Building, 1000 to the Office of Information and gton, D.C. 20503. A person is not orm displays a valid OMB number.
DISCLOSURE OF INFORMATION	 The following information reported on this survey 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 information associated with the "Survey Preparer" and the "Survey Preparer's Supervisor" on Schedule 1. All other information reported on Form EIA-860M is public information and may be publicly released in 					
	company ident					, , , , , , , , , , , , , , , , , , ,