

INFORMATION COLLECTION REQUEST (ICR)

SUPPORTING STATEMENT

ENVIRONMENTAL PROTECTION AGENCY

WASTE ENERGY RECOVERY REGISTRY

PART A OF THE SUPPORTING STATEMENT

1. Identification of the Information Collection

(a) Title: Waste Energy Recovery Registry
OMB Number: 2060-New
EPA ICR Number: 2321.01

(b) Short Characterization

The U.S. Environmental Protection Agency is proposing a new regulation at 40 CFR part 1200 to establish the criteria for including a source or site on a Congressionally-mandated Registry of Recoverable Waste Energy Sources. Title IV Subtitle D, § 372 of the Energy Independence and Security Act (EISA or the Act) of 2007 (P.L. 110-140, 121 Stat. 1492 et seq.) requires the EPA to develop an ongoing Survey of all major domestic industrial and large commercial sources and the sites at which the sources are located, and to review each source for the quantity and quality of waste energy produced. Section 372 further requires EPA to establish criteria, making use of the information reported in the Survey, by which sites that are (1) economically feasible by virtue of offering a financial payback period of five years or less (the 5-year payback criterion) and that (2) are not developed or used for the primary purpose of making sales of excess electric power under the regulatory provisions of § 374 of EISA (the primary purpose criterion) are listed in a publicly-available Registry of Recoverable Waste Energy Sources (the Registry) to be maintained by the EPA. The Survey and Registry will provide information to support annual Reports to Congress on waste energy recovery. In addition, § 373 of the Act requires the Department of Energy to establish a recoverable waste energy incentive grant program to fund waste energy recovery projects. The Secretary is required to publicize the availability of the grant program to owners or operators of recoverable waste energy sources and sites listed in the Registry. This Information Collection Supporting Statement describes the reporting proposed in the regulation, the data elements that will be included in the Survey, as well as the processes by which EPA will collect data through the Survey. No recordkeeping by respondents is required by the proposed rule.

Detailed burden and costs calculations for respondents and the Agency are presented in Section 6 of this document.

2. Need For, and Use of, the Collection

(a) Authority for the Collection

This information collection is required by Title IV Subtitle D, § 372 of the Energy Independence and Security Act (EISA or the Act) of 2007 (P.L. 110-140, 121 Stat. 1492 et seq.) signed on December 19, 2007. EISA Title IV Subtitle D amends the Energy Policy and

Conservation Act (EPCA) by adding a new Part E, titled “Industrial Energy Efficiency,” to Title III of EPCA (42 U.S.C. 6291 et seq.). The new § 372 directs EPA to establish a “recoverable waste energy inventory program,” which is to include “an ongoing Survey of all major industrial and large commercial sources in the United States (as defined by the Administrator) and the sites at which the sources are located,” as well as “a review of each source for the quantity and quality of waste energy produced at the source.” Section 372 further provides that EPA is to publish a rule to establish criteria for including sites in a Registry of Recoverable Waste Energy Sources (Registry) within 270 days of EISA enactment, and to establish the registry no later than one year after enactment.

(b) Practical Utility/Users of the Data

The EPA will review and use the data obtained through the Survey to populate the Registry. The proposed rule will not require the major industrial and large commercial sources that will be the subjects of the Survey to install any new monitoring equipment. Sources above certain threshold levels will be asked to report specific data points that the facilities already monitor. EPA will then calculate the quantity and quality of potentially recoverable waste energy (through the Survey tool) and if the source or site meets the Congressionally-established five-year or less payback and primary purpose criteria as defined in the proposed rule it will be included in the Registry of Recoverable Waste Energy Sources. The sites or sources listed on the Registry will be used by the Agency and private project developers of waste energy recovery systems to identify potential waste energy recovery opportunities. The information collected will also enable the EPA to satisfy the requirement in § 372(d)(2) of EISA to include in the Registry, both nationally and state-by-state, an estimate of the total quantities of potentially recoverable waste energy from sources on the Registry, and estimates of the criteria pollutant (NOx and SOx), and greenhouse gas (GHG) emissions savings that might be achieved with recovery of the waste energy from all sources and sites listed on the Registry.

3. Non duplication, Consultation, and Other Collection Criteria.

(a) Non duplication

The requirements do not duplicate information currently collected by the EPA. There is no database of similar information available to EPA.

(b) Public Notice

An announcement of a public comment period for the proposed rule and Survey is being published in the Federal Register concurrent with submission of today’s ICR request to the Office of Management and Budget.

(c) Consultations

The EPA has held extensive listening sessions since February 2008 with over 100 key stakeholders, including trade associations and individual companies, to gather input and identify any issues or problems. Subjects include: potential for small business impacts, regulatory burdens, whether data should be collected from individual sites or company headquarters, Confidential Business Information issues, the types of data already collected and available in-house to companies relating to waste energy topics, whether combined heat and power (CHP) should be included as waste energy, and waste energy issues specific to various industrial and commercial sectors.

(d) Effects of Less Frequent Collection

If the EPA does not undertake the Survey and collect the information, it will be unable to satisfy the Congressional mandate to establish the Registry of Recoverable Waste Energy Sources within the timetable set by the Energy Independence and Security Act of one year or less after passage of the Act. The collection will occur only once every three years from each respondent, therefore no less frequent collection is possible.

(e) General Guidelines

This rule does not exceed any of the OMB guidelines found at 5 CFR 1320.5(d)(2).

(f) Confidentiality

Respondents will retain control of any information that they consider confidential or that is normally considered confidential. Only the final summary results based on calculations using respondent-provided data will be provided to EPA.

(g) Sensitive Questions

Information about site's energy and fuel use, average prices for energy and fuel, and site processes and operations, which some respondents may consider sensitive, is necessary to determine if the site has one or more potential energy recovery opportunities and, if so, whether those opportunities pass the 5 year payback period criterion and the primary purpose criterion established by Congress as threshold conditions for inclusion on the Registry. All confidential information, however, will remain under the control of the respondents.

4. The Respondents and the Information Request

(a) Respondents/NAICS Codes

The appropriate North American Industry Classification System (NAICS) codes for potentially affected entities are listed below in Table 1.

Table I. NAICS Classification of Potentially Affected Entities

Code	Category
211	Oil and Gas Extraction
212	Mining (except Oil and Gas)
221320	Sewage Treatment Facilities
221330	Steam and Air-Conditioning Supply
31-33	Manufacturing
311	Food Manufacturing
312	Beverage and Tobacco Product Manufacturing
313	Textile Mills
314	Textile Product Mills

315	Apparel Manufacturing
316	Leather and Allied Product Manufacturing
321	Wood Product Manufacturing
322	Paper Manufacturing
323	Printing and Related Support Activities
32411	Petroleum Refineries
324191	Petroleum Lubricating Oil and Grease Manufacturing
325	Chemical Manufacturing
326	Plastics and Rubber Products Manufacturing
327	Nonmetallic Mineral Product Manufacturing
3311	Iron and Steel Mills and Ferroalloy Manufacturing
3313	Alumina and Aluminum Production and Processing
3314	Nonferrous Metal (except Aluminum) Production and Processing
3315	Foundries
332	Fabricated Metal Product Manufacturing
333	Machinery Manufacturing
334	Computer and Electronic Product Manufacturing
335	Electrical Equipment, Appliance, and Component Manufacturing
336	Transportation Equipment Manufacturing
337	Furniture and Related Product Manufacturing
339	Miscellaneous Manufacturing
44511	Supermarkets and Other Grocery (except Convenience) Stores
4862	Pipeline Transportation of Natural Gas
48811	Airport Operations
48831	Port and Harbor Operations
493120	Refrigerated Warehousing and Storage
518	Internet Service Providers, Web Search Portals, and Data Processing Services
521	Monetary Authorities - Central Bank
522	Credit Intermediation and Related Activities
5221	Depository Credit Intermediation
5222	Nondepository Credit Intermediation
6111	Elementary and Secondary Schools
6112	Junior Colleges
6113	Colleges, Universities
622	Hospitals
623	Nursing and Residential Care Facilities
71211	Museums
71213	Zoos and Botanical Gardens
71311	Amusement and Theme Parks
71321	Casinos (except Casino Hotels)

72111	Hotels (except Casino Hotels) and Motels
72112	Casino Hotels
812331	Linen Supply
812332	Industrial Launderers
92214	Correctional Institutions

(b) Information Requested

- (i) Data items, including recordkeeping requirements

40 CFR Part 1200

40 CFR Section 1200.4(a) Response to Survey. This section would allow the owners or operators of major domestic industrial and large commercial sources to submit data generated by the Waste Energy Survey Tool (WEST or the Survey) to EPA. (Potential respondents are not required to participate in the Survey.) If EPA's review of the submitted data indicates that the source meets the criteria for inclusion established by §1200.3 of the proposed rule, EPA will place it on the Registry.

This section is necessary to satisfy the Congressional mandate in § 372 of EISA that EPA develop an ongoing Survey of all major domestic industrial and large commercial sources to determine whether such sources meet the criteria for inclusion on the Registry. The information collection burden for this section is addressed below in the description and clearance for the Survey.

40 CFR Section 1200.4(b): Form of response. This section would allow Survey respondents to submit data in either electronic or hard copy format.

This section is necessary to ensure that those respondents who prefer to submit only the data generated by the Waste Energy Survey Tool in hard copy will be able to do so. This section would create no additional information collection burden.

40 CFR Section 1200.4(c): Timing of response. This section would provide that in order to be included in the initial launch of the Registry (the first time the Registry is populated) respondents must submit responses no later than 60 days following release of the Survey. This section also would provide that to be eligible for inclusion in the first edition of the Registry, responses from respondents must be received within the first three years following release of the Survey.

This section is necessary to ensure that the Survey will be ongoing and the Registry updated on a regular basis, per EISA § 372(a)(2)(A) and 372 (d)(1)(B)(i). The Survey and Registry approach are constructed such that all Survey responses are certified by EPA. As such, the Agency is not proposing to create an option for self-certification. This approach implements the procedures required by § 372(e) of the Act.

40 CFR Section 1200.5(a): Notice to EPA. This section would provide that the owner or operator of a source that has a potential waste energy recovery project listed on the Registry must notify EPA in writing within 90 days after the project becomes commercially operational.

This reporting requirement is necessary to ensure that the Registry is updated and revised in a timely way. It would implement the requirement in § 372 (d)(1)(B)(1) that the Registry be updated on a regular basis and the requirement in § 372 (d)(4) that as a project achieves successful recovery of waste energy EPA must remove it from the Registry.

40 CFR Section 1200.6: Process for contesting a Registry listing. This section would provide that a State, electric utility, or other interested person may contest a Registry listing by submitting a petition in writing to EPA. Section 1200.6(a) would specify the information to be included in a petition contesting a listing.

40 CFR Section 1200.6(b) would specify that the owner or operator of a source whose inclusion on the Registry is being contested would be notified and allowed 60 days to submit information for consideration by EPA in support of the continued listing.

These sections are necessary to implement the requirement in § 372 (d)(1)(C) of the Act that EPA establish procedures for contesting the listing of any source or site on the Registry by any State, utility, or other interested person.

Waste Energy Survey

The draft Waste Energy Survey Questions are provided in Attachment 1 to this Supporting Statement. The questions are not included in the rule, so that the EPA can, if necessary, revise them based on experience. However, the questions in Attachment 1 closely resemble the questions to be used in the Survey during the three-year duration of this clearance. The questions will be incorporated into an electronic tool, the Waste Energy Survey Tool (WEST), which will be developed by EPA. The Survey will be administered through notification of Survey and Registry requirements to potential responders and directions on where and how to download WEST. Those respondents who choose to take part in the Survey will load WEST onto their own computers and input information according to the protocol of questions included on WEST. The tool will calculate, according to algorithms developed by EPA, the waste energy recovery potential of the site. Only the results of the calculations and a determination of whether or not the site meets the criteria and should be placed on the Registry will be reported back to the EPA. The input data, including any input data that might be considered Confidential Business Information by the respondent, will remain in the respondent's control.

Waste Energy Survey Section A. Basic Site Information. The first section of the Survey will collect basic site information, including the site name, address, the name and address and contact information of the individual serving as the site contact, the primary NAICS code for the site, and baseline information concerning the annual operating hours of the site, annual electrical purchases and/or average electrical demand during operating hours, the average price for electricity paid by the site, annual fuel consumption and the average price of fuel purchased. Information concerning energy and fuel use and prices will be used by the Waste Energy Survey Tool but will remain under the control of the respondent. All respondents will respond to Section A. Respondents will address Sections B – E as relevant to their site. Respondents may choose to respond to Sections B – E even if they fall below the threshold levels in Section A.

Basis for Requesting Information in Section A: This information concerning the site and its energy use will establish baseline energy use input characteristics from which potential results of recoverable waste energy projects can be calculated. Information concerning energy and fuel use and prices will be used by the Waste Energy Survey Tool in performing calculations for Sections B, C, D, and E of the Survey.

Waste Energy Survey Section B: Exhaust Heat or Flared Gas Information. The second section of the Survey will obtain information about heat recovery opportunities from high temperature exhaust streams from industrial operations such as glass melters, cement kilns, and pipeline compressor turbine drives. An initial screen will determine whether the site includes such processes. If not, the respondent will proceed to other sections of the Survey. If the site has processes with exhaust heat or flared gas, respondents will supply information about temperature or gas flow. Only facilities whose temperature or gas flow exceed specific criteria will be asked to supply additional detailed process information. Based on this information, which will remain under the control of the respondent, WEST will calculate and return to the EPA only the following information:

- Waste heat to power recovery potential (MW)
- CO₂ emissions reduction potential (tons/year)
- Criteria pollutant reduction potential (NO_x and SO_x tons/year)
- Potential to meet the 5-year or less payback criterion (yes/no)
- Potential to meet the primary purpose criterion (yes/no)
- If a new source, potential to recover not less than 60% of the energy value in the fuel in the form of useful thermal energy and electricity (the 60% efficiency criterion established by § 371 of the Act). (yes/no)

Under § 1200.4(d) of the proposed rule, respondents may claim that designated information on the data generated by WEST is DQI.

Based on the results of the screening, WEST will indicate whether the site has a waste heat recovery opportunity that passes all screening criteria (yes/no). If the answer to this criterion is "yes" the site will return the final summary page to EPA to be considered and included on the Registry.

Basis for requesting information in Section B: This information will address a category of industrial process that Congress expressly requires to be evaluated for inclusion on the Registry of Recoverable Waste Energy Sources. The information is necessary to determine if a site is eligible to be listed on the Registry.

Waste Energy Survey Section C: Waste Gas or Industrial Tail Gas that would Otherwise by Flared, Incinerated, or Vented Information: The third section of the Survey will obtain information about waste or tail gas with potential energy content. An initial screen will determine whether the site has process gas off streams with combustible energy content. Only those facilities that meet this criterion will be asked to supply additional detailed process information. Respondents will provide information about average gas flow and combustible energy content of the gas stream. If the flow and energy content meet minimum thresholds, respondents will supply additional information about their units and processes. WEST will return to the EPA only the following information:

- Waste heat to power recovery potential (MW)
- CO₂ emissions reduction potential (tons/year)

- Criteria pollutant reduction potential (NOx and SOx tons/year)
- Potential to meet the 5-year or less payback criterion (yes/no)
- Potential to meet the primary purpose criterion (yes/no)
- If a new source, potential to meet the 60% efficiency criterion (yes/no)

Under § 1200.4(d) of the proposed rule, respondents may claim that designated information on the data generated by WEST is DQI.

Based on the results of the screening, WEST will indicate whether the site has a waste gas or industrial tail gas recovery opportunity that passes all screening criteria (yes/no). If the answer to this criterion is “yes” the site will return the final summary page to EPA to be considered and included on the Registry.

Basis for Requesting Information in Section C: This information will address a category of industrial process that Congress expressly requires to be evaluated for inclusion on the Registry of Recoverable Waste Energy Sources. The information is necessary to determine if a site is eligible to be listed on the Registry.

Waste Energy Survey Section D: Recoverable Pressure Drop Information: The fourth section of the Survey will obtain information about high pressure process streams that are reduced to lower pressure. An initial screen will determine whether the site has such process streams. Only those facilities that meet this criterion will be asked to supply additional detailed process information. Such respondents will provide information about boilers and average outlet steam conditions, required process or heating steam conditions, average steam flow, annual operating hours, and whether any backpressure or turbine generators are currently in place. WEST will return to the EPA only the following information:

- Waste heat to power recovery potential (MW)
- CO₂ emissions reduction potential (tons/year)
- Criteria pollutant reduction potential (NOx and SOx tons/year)
- Potential to meet the 5-year or less payback criterion (yes/no)
- Potential to meet the primary purpose criterion (yes/no)
- If a new source, potential to meet the 60% efficiency criterion (yes/no)

Under § 1200.4(d) of the proposed rule, respondents may claim that designated information on the data generated by WEST is DQI.

Based on the results of the screening, WEST will indicate whether the site has a pressure drop recovery opportunity that passes all screening criteria (yes/no). If the answer to this criterion is “yes” the site will return the final summary page to EPA to be considered and included on the Registry.

Basis for Requesting Information in Section D: This information will address a category of industrial process that Congress expressly requires to be evaluated for inclusion on the Registry of Recoverable Waste Energy Sources. The information is necessary to determine if a site is eligible to be listed on the Registry.

Waste Energy Survey Section E: Combined Heat and Power Information: The fifth section of the Survey will obtain information about opportunities for on-site generation with heat recovery for site or process heating and/or cooling. Such respondents will provide information about process or heating steam demand, process or heating hot water demand, and central

cooling/refrigeration at the site. If any of these are present additional information about them will be supplied by the respondent. WEST will return to the EPA only the following information:

- Waste heat to power recovery potential (MW)
- CO₂ emissions reduction potential (tons/year)
- Criteria pollutant reduction potential (NO_x and SO_x tons/year)
- Potential to meet the 5-year payback criterion (yes/no)
- Potential to meet the primary purpose criterion (yes/no)
- If a new source, potential to meet the 60% efficiency criterion (yes/no)

Under § 1200.4(d) of the proposed rule, respondents may claim that designated information on the data generated by WEST is DQI.

Based on the results of the screening, WEST will indicate whether the site has an opportunity for combined heat and power that passes all screening criteria. (yes/no). If the answer to this criterion is “yes” the site will be listed on the Registry.

Basis for Requesting Information in Section E: This information will address a type of site defined by Congress in § 371 of the Act. Congress also specified in § 371 that in addition to exhaust heat or flared gas, waste gas or industrial tail gas, and a pressure drop in any gas, EPA could define “such other forms of waste energy” as the Administrator of EPA may determine. EPA has concluded that opportunities for combined heat and power projects should be included on the Registry of Recoverable Waste Energy Sources. The information is necessary to determine if a site is eligible to be listed on the Registry

(ii) Respondent Activities

The Survey will be administered through notification of Survey and Registry requirements to potential responders and directions on where and how to download WEST. Those respondents who choose to take part in the Survey will load WEST onto their own computers and input information according to the protocol of questions included on WEST. The tool will calculate, according to algorithms developed by EPA, the waste energy recovery potential of the site. Only the results of the calculations and a determination of whether or not the site meets the criteria and should be placed on the Registry will be reported back to the EPA. The input data, including any input data that might be considered Confidential Business Information by the respondent, will remain in the respondent’s control,

5. The Information Collected – Agency Activities, Collection Methodology, and Information Management

(a) Agency Activities

- Develop and test the Waste Energy Survey Tool (WEST)
- Identify potential respondents
- Obtain contact lists
- Develop process for administering the Web-based Survey
- Administer the Web-based Survey
- Respond to questions, develop FAQs
- Receive responses
- Populate Registry
- Update Registry
- Remove Registry listings as projects become operational

- Review and decide challenges to Registry listings

(b) Collection Methods

EPA will rely upon information technology tools to administer the Survey. EPA expects to contact 11,098 facilities to submit the Survey within the initial thresholds proposed in this rule. The Survey will be internet-based. Those industrial and commercial entities that elect to participate will download a Survey tool (the Waste Energy Survey Tool or WEST) to their own computers. They will input detailed information, which will be used in algorithms embedded in the tool and based on the criteria in the proposed rule to generate summary information on the potential waste energy recovery opportunity of the source. Only site contact information and summary data will then be sent to EPA; all detailed site data, including any potential CBI data, will remain on the respondent's computer. Once a respondent has completed the Survey, WEST will generate a final summary report, which the respondent will submit to EPA in hard copy form via mail or by email. It is estimated that 100 percent of the potential responses will be filed electronically. However, the proposed rule gives respondents the option of filing a hard copy response. Sources or sites that meet the criteria in the proposed rule will be included on the Registry.

. The Registry will include the following information for each site on the Registry:

- Site name, address, NAICs code;
- Site contact person name, title, address, phone number, email address;
- The total waste energy recovery potential at the site.
- Date the listing was posted in the Registry

(c) Small Entity Flexibility

Because the Survey will be conducted of only major industrial and large commercial sources, few or no small businesses will be affected. In addition, the burden on all affected entities, including any small entities that elect to respond and seek listing on the Registry, has been reduced to every extent possible.

(d) Collection Schedule

Following publication of the proposed rule, analysis of any public comments, and publication of the final rule, the Survey tool will be distributed to respondents so that the Registry can begin to be populated with data within the time period established by EISA. Respondents will be encouraged to respond within 60 days, but also may respond after the end of the 60-day period. The Registry will be maintained for 3 years. At the end of the 3-year period another Survey will be conducted and an updated Registry created.

6. Estimating the Burden and Cost of Collection

(a) Estimating Respondent and Non-Respondent Burden

The basis of the analysis is the identification of the estimated burden for each of the voluntary activities associated with the proposed rule provisions and the Survey. EPA identified ten one-time reporting activities which contain all the information to be obtained from the respondents (see Table II.a. Respondent Burden for details). No recurrent reporting and no recordkeeping are associated with this proposed rule and Survey. EPA estimated the number

of respondents per reporting activity based on information from the Census of Manufactures, County Business Patterns and best professional judgment concerning the types of recoverable waste energy sources likely to be reported by each of the NAICS categories of respondents and an estimated 50 percent response rate. The number of reports estimated to be submitted per respondent over the 3-year period of this ICR is one. EPA estimated the amount of time for data compilation and placement of the data into the Waste Energy Survey Tool based on its prior consultations and best professional judgment.

Table II.a. Respondent Burden (Hours)

Section	Number of Respondents	Responses per Respondent	Total Responses	Burden per Response (Hours)	Total Burden Hours (Annualized)
§40.1200.4(a) Respondents must submit data generated by the WEST to EPA	Burden is addressed under each component of the Survey.				
§ 40.1200.4(b) Respondents may submit data electronically or in hard copy	This section creates no additional information collection burden.				
§ 40.1200.4(c) Respondents must submit data within 60 days	This section creates no additional information collection burden.				
§ 40.1200.5(a) O/O of a source listed on the Registry notifies EPA that the project has become operational	24	1	24	2	16
§ 40.1200.6 and 1200.6(a) State, utility, or interested person submits petition contesting Registry listing	3	1	3	2	2
§ 40.1200.6(b) O/O response to petition for delisting	3	1	3	2	2
Survey respondents to Section A and one	3,277	1	3,277	6	6,554

additional section					
Survey respondents to Section A and two additional sections	1,415	1	1,415	8	3,773
Survey respondents to Section A and three additional sections	328	1	328	10	1,093
Survey respondents to Section A and four additional sections	529	1	529	12	2,116
Total Respondents and Hours	5,579 (5,549 survey responses plus 30 additional paperwork actions)		5,579 (1,860 annualized)		13,556
Total—Burden Hours per Year per Respondent					7.29

Table II.b. Non-Respondent Burden (Hours)

Of the 11,098 potential respondents to the survey, EPA estimated that approximately 50 percent, or 5,549, would ultimately decide not to respond. The burden associated with these non-respondents will vary. Some will make this decision after minimal consideration, others after accessing the survey and reading background information such as the Federal Register notice. EPA estimated the average burden for a potential respondent that receives the survey, investigates the possibility of responding, but eventually decides not to respond to be approximately one-half the burden of responding, or 3.6 hours.

Number of Non-Respondents	Actions per Non-Respondent	Total Actions	Burden per Non-Response (Hours)	Total Burden Hours (Annualized)
5,549	1	5,549 (1,850 annualized)	3.6	6,659
Total—Burden Hours per Year per Non-Respondent				3.6

(b) Estimating Respondent and Non-Respondent Costs

(i) Estimating Labor Costs

An average labor rate for respondents and non-respondents was derived from data on wages by NAICS code obtained from the Bureau of Labor Statistics Employer Cost and Employee Compensation Table 10 (“Private Industry by Industry Group”), 2007. EPA escalated the average hourly wage rate, based on data on “other compensation” including leave and benefits derived from BLS data from the Economic News Release, last modified June 2008. EPA used an average hourly labor rate for all respondents of \$46.13. The total burden hours per year was estimated to be 13,556 hours, which when multiplied by the hourly industry wage rate of \$46.13 equals \$625,338 for total yearly costs. To determine yearly costs per respondent, per report, EPA multiplied the burden hours per respondent per report by the average industry wage. See Table III.a. below for details.

Table III.a. Yearly Respondent Costs Calculations

Industry Wage (includes overhead and fringe)	Total Burden Hours Yearly	Yearly Total Costs
\$46.13	13,556	\$625,338
Industry Wage (includes overhead and fringe)	Total Burden Hours per Respondent	Total Yearly Costs per Respondent
\$46.13	7.29	\$336.29

To determine yearly costs per non-respondent, EPA multiplied the estimated burden hours per non-respondent by the same average industry wage of \$46.13 per hour. See Table III.b. below for details.

Table III.b. Yearly Non-Respondent Costs Calculations

Industry Wage (includes overhead and fringe)	Total Burden Hours Yearly	Yearly Total Costs
\$46.13	6,659	\$307,179
Industry Wage (includes overhead and fringe)	Total Burden Hours per Respondent	Total Yearly Costs per Respondent
\$46.13	3.6	\$166.07

Total estimated annual labor costs for both respondents and non respondents equal \$625,338 plus \$307,179 or \$932,517. The average yearly labor cost, considering both respondents and non-respondents, is approximately \$251 per recipient of the survey.

(ii) Estimating Capital and Operations and Management (O&M) Costs

Capital and operations and management costs include costs such as photocopying, packaging, and postage. Capital and O&M costs were estimated to be \$0 because respondents are expected to submit the summary data from the WEST electronically.

(iii) Capital/Start-up Operating and Management Costs

Capital/ start-up O&M costs were estimated to be \$0 because respondents will input into WEST only data that they already collect and maintain in the ordinary course of business, and no new data collection or maintenance will be required.

(iv) Total Annual Costs for Respondents and Non-Respondents

As discussed above, total labor costs for respondents and non-respondents were calculated to be \$932,656, with \$0 recurring capital and O&M costs and \$0 capital and O&M start-up costs. In summary, total annual costs for the survey (respondents and non-respondents) were calculated to be \$932,656.

(c) Estimating Agency Burden and Costs

To determine agency burden and costs, EPA identified five key activities, listed in Table IV below, associated with recordkeeping and reporting: Survey oversight, including oversight of Survey development, securing lists of potential respondents, distribution of the Survey, review of Survey results, determining if a sources should be included on the Registry, and removing sources from the Registry; reviewing and deciding claims of DQI; reviewing notices from sources that projects have become operational and that sources therefore should be removed from the Registry; reviewing petitions opposing listings on the Registry; and reviewing responses to petitions from sources on the Registry.

The hourly wage rates for EPA technical and managerial staff were derived from the wage rates for such staff used in the regulatory cost estimate for this rulemaking. A blended and fully-loaded labor rate per FTE of \$150,000 was used. EPA was also estimated to incur a one-time extramural cost to develop the Survey instrument, including the information technology tool, of approximately \$90,000, an additional cost of \$302,000 to purchase lists of potential respondents and administer the survey; and an additional cost of \$85,000 to develop and administer the Registry over the three year period.. Thus, EPA will incur extramural costs of \$420,334 in the first year of the Survey and extramural costs of \$28,333 in each of the two succeeding years, for a total of \$477,000 extramural costs over the three years of this clearance.

Table IV summarizes the estimated annual agency burden and costs.

Table IV. EPA Information Management Burden (Annualized)

	Number of Actions	Burden per Action (hours)	Total Burden (Annualized)
Conduct oversight of Survey, review Survey results, determine whether source should be included on Registry,	5,549	1.75	3,237

and remove listings from Registry			
Review notices that projects have become operational and determine whether to remove listings from Registry	24	4	32
Review petitions contesting listings	3	4	4
Review information opposing delisting and decide whether to remove a source from the Registry	3	4	4
Total	5,579 (1,860 annualized)		3,277
EPA Costs (3 years)			
EPA Labor (6 FTE = 2 FTE/yr @ \$150,000/FTE)			\$ 900,000
Extramural			\$ 477,000
Total (3 years)			\$1,377,000

(d) Estimating Total Burden and Costs

Estimates for respondent universe were based on estimates in the cost analysis prepared in support of the proposed regulation. Estimates of the numbers of respondents completing each component of the Survey are presented in Table I above. Because the Survey has never previously been conducted, historical data are not available. EPA conducted informal consultations with stakeholders and relied on best professional judgment to develop estimates. Costs were estimated as described above, and are averages based on the assumption that the burden to respondents will increase as a function of the number of components of the Survey that they address.

(e) Bottom Line Burden Hours and Cost Tables

(i) Respondent Tally

To determine bottom line burden hours and costs for respondents, EPA estimated the total number of responses per control period. The total number of responses for all respondents was calculated to be 1,860 responses and 13,556 hours annually, plus an additional 6,659 hours annually for entities that receive the survey but after evaluating the survey ultimately decide not to respond. Therefore, over the three year span of this ICR, the total hours estimated for respondents is estimated to be 40,668 hours and the total cost for respondents is estimated to be \$1,876,014; total cost for non-respondents is estimated to be 19,977 hours and the total cost for non-respondents is estimated to be \$921,537. Total costs are estimated to be \$1,876,014 plus \$921,537 or \$2,797,551.

(ii) The Agency Tally

The agency estimated its bottom line burden hours and costs based on the number of responses and other actions received per year, which was calculated to be 1,860. EPA also estimated the time necessary to complete the activities associated with the reports and Survey implementation activities. Over the three year span of this ICR, the total Agency burden is estimated as 9,831 hours and the cost is estimated to be \$1,377,000.

(f). Reasons for Change in Burden

The estimated annual burden to respondents plus non-respondents of 20,215 hours for one-time reporting (annualized) represents new burden associated with the proposed rule and Survey.

(g) Burden Statement

As shown in Table V, the total burden for respondents and non-respondents associated with the proposed rule over the 3 years following promulgation is 60,645 hours, or an average of 20,215 hours per year. The total cost over this period, including costs to respondents and non-respondents is \$2,797,551 or an average of \$932,517 per year.

The average burden per response, considering only survey respondents, for each activity that requires a collection of information is 7.29 hours; the average cost per response is \$336. Average burden and cost to non-respondents is approximately half of the burden and cost to respondents, or 3.6 hours and \$166. Time and cost variations may exist depending on the number of components of the Survey addressed by respondents.

The total burden to EPA is approximately 9,831 hours, or 3,277 hours per year. Total costs are \$1,377,000 over three years, or approximately \$459,000 per year, including extramural costs.

Table V.—Annual, Total, and Annual Average Burden Hours and Costs for the Proposed Rule Information Collection Request 3-Year Approval Period

	Year 1	Year 2	Year 3	Total	Annual Average
Total (Respondents, Non-Respondents, and EPA Headquarters)					
Burden (in hours)	23,492	23,492	23,492	70,496	23,492
Respondents and Non-Respondents	3,709	3,709	3,709	11,128	3,709
Responses (includes EPA reviews)	5,569	5,569	5,569	16,707	5,569
Costs	1,652,851	1,260,850	1,260,850	4,174,551	1,391,517
Labor \$	1,232,517	1,232,517	1,232,517	3,697,551	1,232,517
Nonlabor \$	420,334	28,333	28,333	477,000	159,000
Burden per response (includes non-	4.2	4.2	4.2	4.2	4.2

responses)					
Cost per response \$	297	226	226	250	250
Burden per respondent/non-respondent	6.3	6.3	6.3	6.3	6.3
Cost per respondent/non-respondent (includes costs to EPA) \$	446	340	340	375	375
Respondents					
Burden (in hours)	13,556	13,556	13,556	40,668	13,556
Respondents	1,860	1,860	1,860	5,579	1,860
Responses	1,860	1,860	1,860	5,579	1,860
Costs \$	625,338	625,338	625,338	1,876,014	625,338
Labor \$	625,338	625,338	625,338	1,876,014	625,338
Nonlabor \$	0	0	0	0	0
Burden per response	7.29	7.29	7.29	7.29	7.29
Cost per response \$	336	336	336	336	336
Burden per respondent	7.29	7.29	7.29	7.29	7.29
Cost per respondent \$	336	336	336	336	336
Non-Respondents					
Burden (in hours)	6,659	6,659	6,659	19,977	6,659
Non-respondents	1,849	1,849	1,849	5,549	1,849
Actions	1,849	1,849	1,849	5,549	1,849
Costs \$	307,179	307,179	307,179	921,537	307,179
Labor \$	307,179	307,179	307,179	921,537	307,179
Nonlabor \$	0	0	0	0	0
Burden per non-response	3.6	3.6	3.6	3.6	3.6
Cost per non-response	166	166	166		166
Burden per non-respondent	3.6	3.6	3.6	3.6	3.6
Cost per non-respondent	166	166	166		166
EPA Headquarters					
Burden (in hours)	3,277	3,277	3,277	9,831	3,277
Respondents	1,860	1,860	1,860	5,579	1,860

Responses	1,860	1,860	1,860	5,579	1,860
Costs \$	720,334	328,333	328,333	1,377,000	459,000
Labor \$	300,000	300,000	300,000	900,000	300,000
Nonlabor \$	420,334	28,333	28,333	477,000	159,000
Burden per response	1.76	1.76	1.76	1.76	1.76
Cost per response \$	387	177	177	247	247
Burden per respondent	1.76	1.76	1.76	1.76	1.76
Cost per respondent \$	387	177	177	247	247

Note: Numbers have been rounded.

The annual public reporting and recordkeeping burden for this collection of information is estimated to average 11 hours per response. Burden means the total time, effort, or financial resources expended by persons to generate, maintain, retain, or disclose or provide information to or for a Federal agency. This includes the time needed to review instructions; develop, acquire, install, and utilize technology and systems for the purposes of collecting, validating, and verifying information, processing and maintaining information, and disclosing and providing information; adjust the existing ways to comply with any previously applicable instructions and requirements; train personnel to be able to respond to a collection of information; search data sources; complete and review the collection of information; and transmit or otherwise disclose the information. An agency may not conduct or sponsor, and a person is not required to respond to, a collection of information unless it displays a currently valid OMB control number. The OMB control numbers for EPA's regulations are listed in 40 CFR part 9 and 48 CFR chapter 15.

To comment on the Agency's need for this information, the accuracy of the provided burden estimates, and any suggested methods for minimizing respondent burden, including the use of automated collection techniques, EPA has established a public docket for this ICR under Docket ID Number EPA-HQ-OAR-2008-0201, which is available for online viewing at www.regulations.gov, or in person viewing at the Air Docket in the EPA Docket Center (EPA/DC), EPA West, Room 3334, 1301 Constitution Avenue, NW, Washington, D.C. The EPA Docket Center Public Reading Room is open from 8:30 a.m. to 4:30 p.m., Monday through Friday, excluding legal holidays. The telephone number for the Reading Room is (202) 566-1744, and the telephone number for the Air Docket is (202) 566-1742. An electronic version of the public docket is available at www.regulations.gov. This site can be used to submit or view public comments, access the index listing of the contents of the public docket, and to access those documents in the public docket that are available electronically. When in the system, select "search," then key in the Docket ID Number identified above. Also, you can send comments to the Office of Information and Regulatory Affairs, Office of Management and Budget, 725 17th Street, NW, Washington, D.C. 20503, Attention: Desk Officer for EPA. Please include the EPA Docket ID Number **EPA-HQ-2008-0201** and OMB Control Number **2060-NEW** in any correspondence.

PART B OF THE SUPPORTING STATEMENT: COLLECTION OF INFORMATION EMPLOYING STATISTICAL METHODS

EPA did not develop Part B of the supporting statement because statistical sampling is not used in this collection of information.

Attachments:

1. Draft Waste Energy Survey Questions

1. Waste Energy Survey Tool (WEST) - Survey Questions

Introduction

Section 372 of the 2007 Energy Independence and Security Act (EISA) calls for EPA to publish a rule to establish a Registry of Recoverable Waste Energy Sources (Registry). EPA intends to populate the Registry through responses to an ongoing waste energy recovery Survey (Survey), also required under EISA. The Survey is designed to estimate the potential for waste energy recovery projects at major industrial and large commercial sources and the sites at which the sources are located based on readily available information on the site and each potential waste energy source at the site.

The Survey EPA is proposing is an internet-based Survey, the Waste Energy Survey Tool (WEST), which is downloaded by owners or operators of the sites or sources (the respondents). The respondents will enter data into WEST to be used to determine the potential waste energy recovery opportunity of the source.

Survey Questions

A. Site Information – Information on the site name, address, primary contact, and NAICS/application; site-wide information on electricity and thermal use, and electricity and fuel prices.

1. Site Name #:
2. Site Address #:
3. Site Contact:

Name #:
Title #:
Address (street address, city, state, zip code) #:
Phone Number #:
E-mail #:
4. Primary NAICS code (6 digit) #:
5. Site Description (Brief sentence description of primary function of site - e.g., hospital, petroleum refinery, etc) *:
6. Annual operating hours:
7. Annual electricity purchases (kWh):

and/or
Average electricity demand during operating hours (kW):
8. Average purchased electricity price for 2007 (cents/kWh or specify units) – include total costs – commodity and delivery, and all costs – demand and energy:
9. Annual fuel consumption (Specify units – MMBtu, therms, etc)

10. Average purchased fuel price for 2007 (\$/MMBtu or specify units):
11. Electric distribution utility serving site:
12. Is there an existing on-site generation system (do not include back-up or emergency generators)?
If so, what is the capacity (kW) and annual operating hours, or annual electricity generation (kWh/yr)

Site information that will be submitted to EPA and published in the public waste energy registry

** Site information that will be submitted to EPA and can be designated by the respondent as Detailed Quantitative Information (DQI)*

If initial minimum thresholds are not met (i.e., 1 MW average electric demand or 5 MMBtu/hr fuel for commercial, and 100 MMBtu/hr fuel use for industrial), the user would be given the option to end the Survey at this point, or to move on to the individual waste energy categories.

WEST Implementation option - Section A could end with a series of questions that would direct the user to the applicable follow-on sections:

- Does your site have individual furnace/process and/or flare stacks that have an exit temperature of greater than 500° F? (If yes, the Survey would jump to Section B, if no, the Survey would go to the next question)
- Does your site have process off streams with combustible energy content? (If yes, the Survey would jump to Section C, if no, the Survey would go to the next question)
- Does your site have a steam boiler or boilers? (If yes, the Survey would jump to Section D, if no, the Survey would jump to Section E (it is assumed all respondents that pass site thresholds will be asked to complete Section E – CHP)

B. “Exhaust heat or flared gas” - Information on heat recovery opportunities from high temperature stacks. Examples of such sources would include high temperature exhaust streams from glass melters, cement kilns, or pipeline compressor turbine drives.

1. How many individual furnace/process/equipment stack or flare stacks at your site are greater than 500 ° F:
2. How many of these have an average gas flow greater than 7,000 scf/min (or 500,000 scf/hr):
3. How many of these operate at least 4,500 hours per year:

If 1, 2 and 3 not met, user will be sent to Section C

Complete the following for each exhaust furnace/process/equipment stack or flare stack with an exhaust temperature greater than 500 ° F, average stack flow of 7,000 scf/min or above, and minimum operating hours of 4,500 hrs/yr.

1. Temperature (F):
2. Average stack gas flow (specify units: scf/min, scf/hr, cf/min, cf/hr, lbs/hr):
Temperature will determine specific minimum flow requirements; if not met, user will be sent to next stack or Section C.

If exhaust temperature is known, but stack flow is not, available heat could be estimated based on the following (replaces question 2 above):

- 2-a. Source fuel input (MMBtu/hr or MMBtu/yr):
- 2-b. Is source furnace/process/combustion equipment step or flare:
- 2-c. If furnace/process/combustion equipment, what is the thermal efficiency (%):
3. Annual operating hours for source:
4. Source description (e.g., glass furnace, process flare) *:
5. Is source a continuous or batch process:
6. Is there emissions control equipment in the stack:

If so, what type:

Is stack temperature specified before or after control equipment?:

7. Was the source in operation or commence construction prior to December 19, 2007?

For each waste heat source, WEST will screen and calculate a quantitative estimate of:

1. Waste heat to power recovery potential (MW) *
2. CO₂ emissions reduction potential (tons/year) *
3. Criteria pollutant reduction potential (NOx and SOx tons/yr) *
4. Does the potential project have a five year payback or less (yes/no) *
5. Does the potential project meet the primary purpose criteria (yes/no) *
6. If a new source, does the potential project meet the 60% efficiency test (yes/no) *

For the site, WEST will indicate:

Does the site have a waste heat recovery opportunity that passes all screening criteria (yes/no)*

Waste heat recovery information that will be submitted to EPA and published in the public waste energy registry

** Waste heat recovery information that will be submitted to EPA and can be designated by the respondent as Detailed Quantitative Information (DQI)*

C. “Waste gas or industrial tail gas that would otherwise be flared, incinerated or vented” - Information on energy recovery opportunities from process off streams with significant combustible energy content. Examples of such sources would include chemical and/or refinery off-gases, anaerobic decomposition gases from food processing wastes, or combustible off-gases from coke ovens.

1. Are there any process off streams with combustible energy content at the site:

If 1 not met, user will be sent to Section D

2. Average gas flow (specify units: scf/min, scf/hr, cf/min, cf/hr, lbs/hr or other):

Minimum and maximum stack gas flow (optional):

3. Gas stream combustible energy content (specify units: Btu/scf, or other):

Flow and Btu content will determine minimum threshold, if not met, user will be sent to Section D.

4. Annual operating hours for source:

If below 4,500 hours, user will be sent to next stack or section C

5. Source description (e.g., coke oven, digester) *:

6. Is source a continuous or batch process:

7. Is there existing pollution control equipment in place:

If so, what type:

Is flow and Btu content specified before or after control equipment?:

8. Was the source in operation or under construction prior to December 19, 2007?

For each combustible source, WEST will screen and calculate a quantitative estimate of:

1. Waste gas to power recovery potential (MW) *
2. CO₂ emissions reduction potential (tons/year) *
3. Criteria pollutant reduction potential (NOx and SOx tons/yr) *
4. Does the potential project have a five year payback or less (yes/no) *
5. Does the potential project meet the primary purpose criteria (yes/no) *
6. If a new source, does the potential project meet the 60% efficiency test (yes/no) *

For the site, WEST will indicate:

Does the site have a waste gas or industrial tail gas recovery opportunity that passes all screening criteria (yes/no)*

Waste gas recovery information that will be submitted to EPA and published in the public waste energy registry

** Waste gas recovery information that will be submitted to EPA and can be designated by the respondent as Detailed Quantitative Information (DQI)*

D. “Recoverable pressure drop” - Information on energy recovery opportunities from high pressure process streams that are reduced to lower pressure without any existing recovery. A primary example of such sources would include high pressure steam from a boiler that is reduced in pressure reduction valves to a lower pressure for process and/or heating use.

1. Are there steam boilers at the site:

If 1 not met, user will be sent to Section E

2. What are the average outlet steam conditions of the boiler(s) (psig and temperature):
3. What are the average steam conditions required at the process or for heating (psig and temperature):
4. Is there an existing backpressure or extraction steam turbine generator in place:
5. Average steam flow (specify units: lbs/hr, lbs/yr, Btu/hr, Btu/yr):
6. Annual operating hours for steam system:
7. Was the unit in operation or under construction prior to December 19, 2007?

For each pressure drop source, WEST will screen and calculate a quantitative estimate of:

1. Pressure drop to power recovery potential (MW) *
2. CO₂ emissions reduction potential (tons/year) *
3. Criteria pollutant reduction potential (NOx and SOx tons/yr) *
4. Does the potential project have a five year payback or less (yes/no) *
5. Does the potential project meet the primary purpose criteria (yes/no) *
6. If a new source, does the potential project meet the 60% efficiency test (yes/no) *

For the site, WEST will indicate:

Does the site have a pressure drop recovery opportunity that passes all screening criteria (yes/no) *

* *Pressure drop recovery information that will be submitted to EPA and published in the public waste energy registry*

* *Pressure drop recovery information that will be submitted to EPA and can be designated by the respondent as Detailed Quantitative Information (DQI)*

E. “Combined Heat and Power” - Information on opportunities for on-site generation with heat recovery for site/process heating and/or cooling.

1. Average process or heating steam demand at site (specify units such as lb/hr, lbs/yr):
2. Average process or heating steam conditions (psig, temperature):
3. Annual hours of steam demand

Commercial applications may not know actual steam or hot water demand. In those cases, the Survey will ask:

- 3-a. What is annual space heating load (Btu/yr, or Btu/month), or what is annual space heating fuel use (MMBtu/yr, therms/yr)
- 3-b. What is annual hot water load (Btu/yr, or Btu/month), or what is annual hot water fuel use (MMBtu/yr, therms/yr)
4. Average process or heating hot water demand at site (specify unit such as lbs/hr, gallons/hr, Btu/hr, Btu/yr):
5. Average process hot water temperature (F):
6. Annual hours of hot water demand:
7. Is there a central cooling/refrigeration supply:
8. Average cooling/refrigeration demand (specify units such as tons/hr):
9. Annual hours of cooling/refrigeration:

WEST will screen and calculate a quantitative estimate of:

1. CHP potential based on thermal (heating and/or cooling) load (MW) *
2. CO₂ emissions reduction potential (tons/year) *
3. Criteria pollutant reduction potential (NOx and SOx tons/yr) *
4. Does the potential project have a five year payback or less (yes/no) *
5. Does the potential project meet the primary purpose criteria (yes/no) *
6. If a new source, does the potential project meet the 60% efficiency test (yes/no) *

For the site, WEST will indicate:

Does the site have a Combined Heat and Power opportunity that passes all screening criteria
(yes/no)*

CHP potential information that will be submitted to EPA and published in the public waste energy registry

** CHP potential information that will be submitted to EPA and can be designated by the respondent as Detailed Quantitative Information (DQI)*