

**U.S. Department of Energy**  
**Supporting Statement**  
**Combined Heat and Power (CHP) Packaged System eCatalog**  
**OMB Control Number – 1910-NEW**

This supporting statement provides information regarding the Department of Energy (DOE) request for processing of the proposed information collection, for the Combined Heat and Power (CHP) Packaged CHP systems eCatalog. The numbered questions correspond to the order shown on the Office of Management and Budget (OMB) Form 83-I, “Instructions for Completing OMB Form 83-I.”

**A. Justification**

- 1. Explain the circumstances that make the collection of information necessary. Identify any legal or administrative requirements that necessitate the collection. Attach a copy of the appropriate section of each statute and regulation mandating or authorizing the information collection.**

This data collection is necessary in order to administer the voluntary CHP Packaged System eCatalog.

The Energy Policy Act of 2005 (EPAc) sec 911 Energy Efficiency<sup>1</sup> and sec 106 Voluntary Commitments to Reduce Industrial Energy Intensity support the eCatalog and authorize this type of data collection.

CHP is a technological approach to producing electricity and thermal energy onsite that saves source energy, increases energy resilience, and reduces emissions. The multiplicity of electric generating devices and thermal energy systems historically has meant that most CHP systems were custom designed, which adds to cost, project development, and construction time, and increases the potential for design error. New York State Research and Development Authority (NYSERDA) pioneered a voluntary market engagement and Packaged CHP Systems program in 2012 to achieve genuine cost reductions and increase customer confidence. Based on the NYSERDA voluntary program results in cost and risk reduction, CHP developer, utility and state energy office support, and EPAc’s focus on industrial competitiveness, energy security, and resiliency, DOE is creating the Packaged CHP Systems eCatalog to provide nationwide support for industry.

Underlying Economics of the eCatalog Packaged Systems Program

Section 1 of the EPAc sec 911 calls for DOE to conduct programs of energy efficiency research, development, demonstration, and commercial application, including activities in industrial facilities and commercial buildings, particularly to reduce the cost of energy and to make the economy more efficient and competitive, reduce energy demand from foreign sources, and improve energy security of the United States. The eCatalog develops a

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<sup>1</sup> Pub. L. 109–58, title IX, § 911, Aug. 8, 2005, 119 Stat. 857; Pub. L. 110–140, title III, § 315(a), Dec. 19, 2007, 121 Stat. 1571

framework to continually identify and value cost effective Packaged CHP systems, enabling corporate managers to make energy efficient CHP investment decisions that reduce delivered systems costs to industry, increase reliability, and reduce overall risk to all parties.

The EPAct sec 106 allows DOE to enter into voluntary agreements with energy intensive industrial sectors to reduce the energy intensity of the production activities.

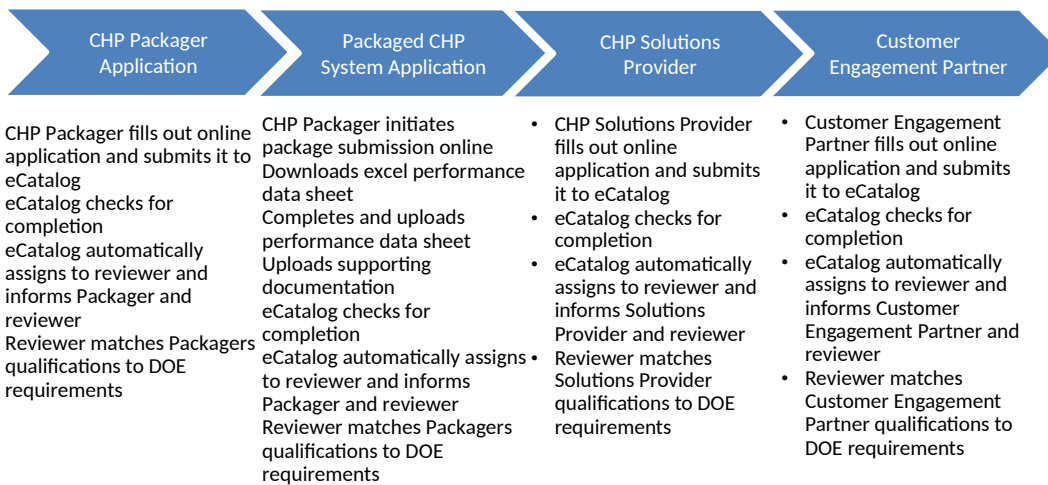
DOE, in cooperation with other appropriate Federal agencies, shall develop mechanisms to recognize and publicize the achievements of participants in voluntary agreements under this section. DOE partners who make a good faith effort to achieve energy efficiency should be eligible to receive technical assistance, as appropriate, to assist in the achievement of those goals. This eCatalog collection of information and data will enable DOE to verify and validate the design performance of new packaged CHP systems on a consistent basis, and allow potential users to have more confidence in the projected performance to better substantiate their investment in CHP.

**2. Indicate how, by whom, and for what purpose the information is to be used. Except for a new collection, indicate the actual use the agency has made of the information received from the current collection**

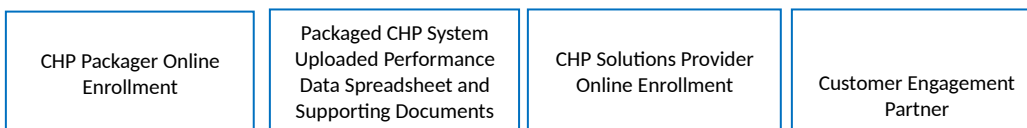
The information being collected will be used to report the progress of participants in the eCatalog. The eCatalog benefits include third party verification of energy savings, the associated cost savings, and DOE recognition.

**The following figure summarizes the eCatalog data collection process.**

**New Collection: eCatalog data collection process**



**Forms collected at each step**



The following is an overview of the data collection forms for the eCatalog.

Summary of eCatalog Voluntary Data Collection Uses		
	Who Submits the Form	How DOE Will Use the Information
<b>CHP Packager Online Enrollment</b>	CHP Packager	Recognize CHP packager
<b>Packaged CHP system Uploaded Performance Data Spreadsheet and Supporting Documents</b>	CHP Packager	Recognize packaged CHP systems in accordance with the eCatalog Requirements Document
<b>CHP Solutions Provider Online Enrollment</b>	CHP Solutions Provider	Recognize CHP Solutions Provider
<b>Customer Engagement Partner Online Enrollment</b>	Customer Engagement Partner	Enable Customer Engagement Partner Programs to be tagged to eCatalog equipment

. The eCatalog will provide the target markets with a robust, national, web-based knowledge catalog of DOE recognized, packaged CHP systems<sup>2</sup> that will be designed, assembled, tested, and warranted by DOE recognized CHP packagers. DOE recognized CHP Solution Providers will also be featured in the eCatalog. CHP Solution Providers will choose Package CHP systems from the eCatalog to offer to customers and be fully responsible for all aspects of applying, installing, maintaining, and servicing the Packaged CHP systems. CHP Solution Providers must provide a single point of responsibility for site integration, system installation, maintenance, and service; offer a market priced Assurance Plan that provides service and maintenance covering planned and unplanned shutdowns of the Packaged CHP system (including all components), for a period of not less than five (5) years from the date of electric grid interconnection recognition; maintain availability at or above 92% for reciprocating engines, and 95% for combustion and micro turbines; and deliver a response to unplanned shutdowns within 12 hours.

#### CHP Packager Enrollment

“Enrollment” refers to the period of time that a CHP packager communicates its interest in participating in the eCatalog to DOE as the eCatalog Administrator. The CHP packager applicant fills out the online CHP Packager Enrollment Form. Basic company, CHP packaging experience, and contact information is collected to provide eCatalog participants an understanding of the potential CHP Packager’s CHP capabilities, including showing experience in engineering, design, assembly, and testing of Packaged CHP systems. The data will be checked for completeness. If data is missing, a notice will be sent to the applying CHP Packager for completion. The CHP Packager Enrollment Form will be submitted electronically.

<sup>2</sup> Minimum system design efficiency of 60% HHV

### Packaged CHP System Application

“Application” refers to the period of time that a CHP Packager communicates its interest in submitting a specific Packaged CHP system design for publication in the eCatalog to DOE as the eCatalog Administrator. The CHP Packager fills out the Packaged CHP System Application information for each Packaged CHP System design submitted. The data requested in this form provides the basic data to determine the designed and/or tested Packaged CHP system performance. The data will be checked for completeness. If data is missing, a notice will be sent to the applying CHP Packager for completion. The Packaged CHP System Application will be submitted electronically.

DOE recognized, packaged CHP systems will be designed, assembled, tested, and warranted by DOE recognized CHP Packagers. Packaged CHP systems that have been recognized by DOE as the eCatalog Administrator will be included into the eCatalog.

### CHP Solutions Provider Enrollment

“Enrollment” refers to the period of time that a CHP Solutions Provider communicates its interest in participating in the eCatalog to DOE as the eCatalog Administrator. The CHP Solutions Provider applicant fills out the CHP Solutions Provider Enrollment Form. Basic company, CHP experience and contact information is collected to provide eCatalog participants an understanding of the potential CHP Solutions Provider capabilities. The data will be checked for completeness. If data is missing, a notice will be sent to the applying CHP Solutions Provider for completion. The CHP Solutions Provider information will be submitted electronically.

DOE recognized CHP Solution Providers will also be featured in the eCatalog. CHP Solutions Providers will choose Package CHP systems from the eCatalog to offer to customers and be fully responsible for all aspects of applying, installing, maintaining, and servicing the Packaged CHP systems. CHP Solution Providers must provide a single point of responsibility for site integration, system installation, maintenance, and service; offer a market priced Assurance Plan that provides service and maintenance covering planned and unplanned shutdowns of the Packaged CHP system (including all components) for a period of not less than five (5) years from the date of electric grid interconnection recognition; maintain availability at or above 92% for reciprocating engines and 95% for combustion and micro turbines; and deliver a response to unplanned shutdowns within 12 hours.

### Customer Engagement Partner (Customer Engagement Partner) Enrollment

Customer Engagement Partner Enrollment refers to the period of time that a Customer Engagement Partner CHP related Program communicates its interest in participating in the eCatalog to DOE as the eCatalog Administrator. The CHP Customer Engagement Partner applicant fills out the online Customer Engagement Partner Enrollment Form. Basic CHP program information is collected to provide eCatalog participants an understanding of CHP guidance and support provided to specific Packaged CHP systems by the Customer Engagement Partner. The data will be checked for completeness. If data is missing, a notice

will be sent to the applying Customer Engagement Partner CHP related Program for completion.

**3. Describe whether, and to what extent, the collection of information involves the use of automated, electronic, mechanical, or other technological collection techniques or other forms of information technology, e.g., permitting electronic submission of responses.**

eCatalog will rely on data provided in an electronic format. DOE is developing a web-based, password-protected system that will be housed within a DOE data center compliant with the Federal Information Security Management Act (FISMA) for submitting all information datasets. No other data collection systems will be employed to support the eCatalog.

**4. Describe efforts to identify duplication.**

The eCatalog is a national program offering a high level of rigor and credibility to Packaged CHP systems.

NYSERDA has created a voluntary program that currently offers residents of, and companies doing business in New York State a similar program that provides a PDF catalog of Packaged CHP systems under 1.3 megawatts (MW) in prime mover capacity. This is the only similar program in the nation. DOE has been working closely with NYSERDA to assess the success that program has achieved and has patterned a national program based on this work. NYSERDA plans to stop their state CHP packaged systems catalog program and use DOE's national program because NYSERDA considers DOE's eCatalog's technical review process to be more comprehensive.

**5. If the collection of information impacts small businesses or other small entities, describe any methods used to minimize burden.**

The collection of information is not mandatory so it does not impact small businesses or other small entities unless they choose to participate voluntarily. The eCatalog is a voluntary program, and small businesses may choose not to participate. DOE will assist any small business seeking to be part of the program.

**6. Describe the consequence to Federal program or policy activities if the collection is not conducted or is conducted less frequently, as well as any technical or legal obstacles to reducing burden.**

DOE is requesting the minimum level of information required to fully support and implement eCatalog. To be successfully administered, the eCatalog requires the collection of some unique and specific participant information, as well as Packaged CHP system and performance information. DOE cannot administer the program, or track participation and outcomes, without the information gathered by the collection instruments described in Question 2 above. DOE is the only possible administrator at this point because of its unique engagement with past and present participants in the program.

DOE has worked closely with Customer Engagement Partners through its Technology Assistance Partnerships throughout the U.S. and has determined that the Packaged CHP System eCatalog is an essential tool to increase the deployment of CHP. DOE has also been working with NYSERDA to assess their New York State packages CHP system catalog performance over the past five years. NYSERDA packaged systems and supporting market engagement has led to about a 30% reduction in time from inquiry to installation and a 20% reduction in cost with pre-engineering, bulk purchasing, inspection, and permitting streamlining.

Reducing CHP project delivery time and cost is critical to establishing CHP systems as an important national infrastructure asset that efficiently uses domestic natural gas, cost effectively increases the electric grid's reliability and resilience, and increases industrial competitiveness by lowering energy costs. Based on the proven results of the NYSERDA program, not developing the eCatalog will significantly impact the future deployment of CHP in the U.S.

Essentially, all data are required for initial enrollment or application, which is the minimum expectation.

7. **Explain any special circumstances that require the collection to be conducted in a manner inconsistent with OMB guidelines. (a) requiring respondents to report information to the agency more often than quarterly; (b) requiring respondents to prepare a written response to a collection of information in fewer than 30 days after receipt of it; (c) requiring respondents to submit more than an original and two copies of any document; (d) requiring respondents to retain records, other than health, medical government contract, grant-in-aid, or tax records, for more than three years; (e) in connection with a statistical survey, that is not designed to produce valid and reliable results that can be generalized to the universe of study; (f) requiring the use of statistical data classification that has not been reviewed and approved by OMB; (g) that includes a pledge of confidentiality that is not supported by authority established in statute or regulation, that is not supported by disclosure and data security policies that are consistent with the pledge, or which unnecessarily impedes sharing of data with other agencies for compatible confidential use; (h) requiring respondents to submit proprietary trade secrets, or other confidential information unless the agency can demonstrate that it has instituted procedures to protect the information's confidentiality to the extent permitted by law.**

The collection will be conducted in a manner consistent with all OMB guidelines.

8. **If applicable, provide a copy and identify the date and page number of publication in the Federal Register of the agency's notice, required by 5CFR 320.8(d), soliciting comments on the information collection prior to submission to OMB. Summarize public comments received in response to that notice and describe actions taken in response to the comments. Specifically address comments received on cost and hour burden. Describe efforts to consult with persons outside DOE to obtain their views on the availability of data, frequency of collection, the clarity of instructions and**

**recordkeeping, disclosure, or reporting format (if any), and on the data elements to be recorded, disclosed, or report.**

The Department published a Notice and Request for Comment concerning this collection in on March 2, 2018 in the Federal Register, Volume 83, No. 42, page 8983. The notice described the collection and invited interested parties to submit comments or recommendations regarding the collection. The Department didn't receive any comments during this time period.

**9. Explain any decision to provide any payment or gift to respondents, other than remuneration of contractors or grantees.**

There will be no payment or gift of any kind to respondents. The programs are voluntary and participants will not receive any payment or gift in return for involvement.

**10. Describe any assurance of confidentiality provided to respondents and the basis for the assurance in statute, regulation, or agency policy.**

DOE has developed an online version of the application forms that participants can fill out and submit through a secured website. This information will be stored within a system that is FISMA compliant. Hypertext links to the four application process forms are included below.

The Application forms can be accessed for review at:

- [Solutions Provider Enrollment Form](#)
- [CHP Packager Enrollment Form](#)
- [Packaged CHP Systems Enrollment Form](#)
- [Customer Engagement Partner Enrollment Form](#)

eCatalog participants provide the information to help DOE inform the broader marketplace of industrial facilities and companies about the successful implementation of Packaged CHP systems. eCatalog participants are informed that DOE will make the following information public in the eCatalog: company name, services provided, Packaged CHP datasheets, and Packaged CHP system performance data.

**11. Provide additional justification for any questions of a sensitive nature, such as sexual behavior and attitudes, religious beliefs, and other matters that are commonly considered private. This justification should include the reasons why DOE considers the questions necessary, the specific uses to be made of the information, the explanation to be given to persons from whom the information is requested, and any steps to be taken to obtain their consent.**

The information collected for this project is energy consumption and conservation efforts of partner organizations and contains no personal data.

**12. Provide estimates of the hour burden of the collection of information. The statement should indicate the number of respondents, frequency of response, annual hour burden, and an explanation of how the burden was estimated. Unless directed to do so, DOE should not conduct special surveys to obtain information on which to base hour burden estimates. Consultation with a sample fewer than 10 potential respondents is desirable.**

Developing the eCatalog was a collaborative process with industry experts, who provided key feedback in developing the four information and data entry forms (CHP Packager Enrollment Form, Packaged CHP System Application, Solutions Provider Enrollment Form, and Customer Engagement Partner Enrollment Form). Industry experts have voluntarily completed enrollment and applications that generally confirm the time estimates used in calculating the burden. Projected uptake of applicants and Packaged Systems was estimated based on NYSERDA’s program experience.

The table below contains the detailed time assessment for each of the data collections forms over the three program years.

Description	Number of responses per year	Number of people to complete each response	Hours per person per response	Total hours per year per response	Total hours per year for all responses
<b>Solutions Provider Enrollment Form</b>					
Non-recurring initial submission.	40	1	1	1	40
<b>CHP Packager Enrollment Form</b>					
Non-recurring initial submission.	50	1	1	1	50
<b>Packaged CHP Systems Enrollment Form</b>					
Non-recurring initial submission.	120	1	8	8	960
<b>Customer Engagement Enrollment Form</b>					
Non-recurring initial submission.	10	1	1	1	10
<b>Solutions Provider Enrollment Form</b>					
Non-recurring initial submission.	50	1	1	1	50
<b>CHP Packager Enrollment Form</b>					
Non-recurring initial submission.	70	1	1	1	70
<b>Packaged CHP Systems Enrollment Form</b>					
Non-recurring initial submission.	160	1	6	6	960
<b>Customer Engagement Enrollment Form</b>					
Non-recurring initial submission.	15	1	0.5	1	15
<b>Solutions Provider Enrollment Form</b>					
Non-recurring initial submission.	60	1	1	1	60
<b>CHP Packager Enrollment Form</b>					
Non-recurring initial submission.	80	1	1	1	80
<b>Packaged CHP Systems Enrollment Form</b>					
Non-recurring initial submission.	200	1	4	4	800
<b>Customer Engagement Enrollment Form</b>					
Non-recurring initial submission.	20	1	1	1	20



The table below compiles the average burden hours of 3.6 per response, the average number of respondents per year at 395 and the average annual responses of 875. This yields an annual average report per respondent of 2.2.

		Respondents	Total Responses	Reports filed per person	Total Hours
Average burden hours per response 2018 =	4.8	100	220	2.2	1,060
Average burden hours per response 2019=	3.7	135	295	2.2	1,095
Average burden hours per response 2020=	2.7	160	360	2.3	960
Total 2018 - 2020 =		395	875		3,115
Average 2018 - 2020 =	3.56	131.7	291.7	2.2	1,038.3

A summary of the annual burden hours are shown in the table below (note the average burden per applicant is 1,038.3 hours / 2.2 reports filed per applicant or 7.9 hours):

<b>Total Number of Unduplicated Respondents</b>	<b>131.7</b>
<b>Reports Filed per Applicant</b>	<b>2.2</b>
<b>Total Annual Responses</b>	<b>291.7</b>
<b>Total Annual Burden Hours</b>	<b>1,038.3</b>
<b>Average Hourly Burden per Collection</b>	<b>3.6</b>
<b>Average Burden per Applicant</b>	<b>7.9</b>

**13. Provide an estimate for the total annual cost burden to respondents or record-keepers resulting from the collection of information. The cost estimate should be split into two components: (a) a total capital and start-up cost component (annualized over its expected useful life) and (b) a total operation and maintenance and purchase of services component.**

- (a) There are no capital and start-up cost components associated with any of these data collections. All costs associated with these data collections are personnel costs.
- (b) The estimated total annual cost burden to respondents completing forms for the eCatalog is about \$46,154.

(c) There is no operation and maintenance and purchase of services component with any of these data collections. All costs associated with these data collections are personnel costs.

Description	Total all responses for three years	Total Hours for all three years	Hours per response	Labor Rate	Total Labor Cost	Average Annual Labor Cost	Cost per Submission	Average Annual Responses	Average Annual Cost
<b>Solutions Provider Enrollment Form</b>									
Non-recurring initial submission.	150	150	1	\$66.21	\$9,932	\$3,311	\$66	50.0	\$3,311
<b>CHP Packager Enrollment Form</b>									
Non-recurring submission.	200	200	1	\$66.21	\$13,242	\$4,414	\$66	66.7	\$4,414
<b>Packaged CHP Systems Enrollment Form</b>									
Non-recurring submission.	480	2720	5.7	\$41.29	\$112,309	\$37,436	\$234	160.0	\$37,436
<b>Customer Engagement Enrollment Form</b>									
Non-recurring submission.	45	45	1	\$66.21	\$2,979	\$993	\$66	15.0	\$993
<b>Summary of Average Annual Burden Hours for eMarket</b>									
<b>Total burden hours =</b>			<b>3115.0</b>	<b>3 Year average annual burden hours =</b>		<b>1038</b>	<b>Totals</b>	<b>291.7</b>	<b>\$46,154</b>
<b>Total number of responses =</b>			<b>875</b>	<b>3 Year average annual number of responses =</b>		<b>292</b>	<b>Average Annual Respondents</b>	<b>131.7</b>	<b>Response per person</b>

**14. Provide estimates of annualized cost to the Federal government.**

DOE staff oversight for the eCatalog will require 15% of a GS13 average FTE cost.

109,900	S&B 13/5 (base salary for GS 13/5)
31,871	Average benefits 29%
123,000	WCF, TV, TR, awards, EITS
264,771	Average FTE

Annual DOE staff oversight will cost \$39,716.

DOE will require contractor support to process and analyze the data being reported by recipients and prepare an annual summary of energy savings achieved. The following estimate reflects the DOE and contractor resources needed to process and analyze the data being reported by participants. The all-in contractor hourly rate used is \$200 per hour.

**CHP Packager Online Enrollment**

Total number of unduplicated forms submitted annually: 66.7

Total annual hours: 133.3

Total annual cost associated with total annual burden hours: \$26,667

**Packaged CHP Systems Online Enrollment and Uploads**

Total number of unduplicated forms submitted annually: 160.0

Total annual hours: 1,226.7

Total annual cost associated with total annual burden hours: \$245,333

**Solution Online Enrollment**

Total number of unduplicated forms submitted annually: 46.7

Total annual hours: 93.3

Total annual cost associated with total annual burden hours: \$18,667

**Customer Engagement Partner Online Enrollment**

Total number of unduplicated forms submitted annually: 15.0

Total annual hours: 15.0

Total annual cost associated with total annual burden hours: \$3,000

**Combined processing totals**

Total average number of unduplicated forms submitted annually: 288.3

Total average annual hours: 1468.3

Total average annual cost associated with total annual burden hours: \$293,667

**Combined cost total including DOE staff oversight: \$333,382**

**15. Explain the reasons for any program changes or adjustments reported in Items 13 (or 14) of OMB Form 83-I.**

Not applicable. This supporting statement is related to a new collection request.

**16. For collections whose results will be published, outline the plans for tabulation and publication.**

Information collected through this effort will be used to publicize the achievements, efforts, and strategies of eCatalog Packaged CHP Systems via the program's websites as a means to encourage other organizations to learn from their successes.

eCatalog CHP Packagers, Packaged CHP systems, and Solution Providers information will be publicized through mediums such as the DOE website to recognize CHP capabilities and programs:

1. Company name
2. Company location (city, state)
3. Recognized Packaged CHP Systems Data Sheets

The information collected may be used internally by DOE to produce high-level summaries and analyses of aggregated data of the eCatalog, including determining the eCatalog wide energy savings, estimating the costs and benefits of implementing Packaged CHP Systems to the facility, and developing strategies to increase program participation. Results of the analyses and summaries may be published at industry conferences, publications, and the DOE website. However, aside from the information presented above in the website screen shots, no information that could potentially relate the data to a specific facility will be published.

On all eCatalog online forms requested to be completed, the following statement will be provided to disclose the information that will be disclosed publicly and explain how DOE will protect confidential business information:

“DOE maintains the confidentiality of proprietary energy and production related data as proprietary that is submitted to the Combined Heat and Power (CHP) Packaged System eCatalog (eCatalog).

DOE will, from time-to-time, publicly share aggregate, program-wide metrics, such as number of eCatalog CHP systems, and annual and cumulative eCatalog participation use data.

All data provided to DOE is subject to the Freedom of Information Act (FOIA), however, DOE will notify partners if a FOIA request has been submitted for which their data might be responsive. DOE will consult with the partner and ensure the partner has an opportunity to inform DOE what data they view is proprietary. DOE will review the partner's suggestions and will not release to the public any data DOE deems proprietary.”

**17. If seeking approval to not display the expiration date for OMB approval of the information collection, explain the reasons why display would be inappropriate.**

DOE is not seeking approval to not display the expiration date for OMB approval of the information collection.

**18. Explain each exception to the certification statement identified in Item 19 of OMB Form 83-I.**

There are no exceptions to the certification statement identified in Item 19 of the OMB Form 83-I.