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Instructions for Applying for the ENERGY STAR® Plant Certification

Background
Select manufacturing plants located within the U.S. and its territories are eligible to receive ENERGY STAR certification from the U.S. Environmental Protection Agency (EPA) when they score within the top quartile of energy performance. Industrial plants that are eligible include:

- Auto Assembly Plants
- Cement Manufacturing Plants
- Cookie and Cracker Baking Plants
- Container Glass Manufacturing Plants
- Flat Glass Manufacturing Plants
- Frozen Fried Potato Processing Plants
- Integrated Paper Mills
- Juice Processing Plants
- Petroleum Refineries (*Solomon-EII*™ scoring system)
- Pharmaceutical Manufacturing Plants
- Pulp Mills
- Wet Corn Mills

Energy performance for plants in these industries is determined using an Energy Performance Indicator (EPI). EPIs, industry-specific benchmarking tools, score a plant's energy performance and compare it to that of similar plants in its U.S. industry and generate an Energy Performance Score on a scale of 1 to 100. EPA defines a plant to be energy-efficient when its Energy Performance Score is at the 75th percentile or higher (equivalent to a minimum score of 75 on the EPIs).

Definition of a plant type and relevancy of an EPI to a specific plant is discussed in the EPI tool. Current EPIs may be downloaded for use at www.energystar.gov/industrybenchmarkingtools.

Determining Eligibility
Plants eligible for the ENERGY STAR certification must meet the following criteria:

1. Score 75 or better using the current version of the EPI for the plant type utilizing data that are current for the operation of the plant (defined as within 4 months of the period ending date on the Statement of Energy Performance). For petroleum refineries, scoring within the top 25 percent of refineries for similar crude capacity in the U.S. using *Solomon-EII*™ scoring system.
2. Satisfy the specific eligibility criteria on the "Instructions" sheet of the applicable EPI.
3. Satisfy the following environmental compliance criteria:
    a. No unresolved high priority violations of the Clean Air Act (CAA) within the past 3 years,
    b. No CAA Consent Decrees within the last year or noncompliance of an existing CAA Consent Decree, and,
    c. No CAA criminal convictions or pleas within the past 5 years or current criminal investigations involving an employee(s) or corporate officer(s).

For questions regarding a plant's compliance standing, please contact Rebecca Hindin at hindin.rebecca@epa.gov

Before Applying
The corporate energy manger must ensure that all eligibility criteria are met for the plant. To meet criteria 1 and 2 in the "Determining Eligibility" section above, the following steps must be performed (criteria 3 will be determined by EPA through an internal compliance screen):

1. *Establish a Formal Certification File*: The corporate energy manager must establish and maintain for five years, a formal certification file that incorporates the energy- and plant-related data required for the EPI. This formal certification file must contain copies of all documents that provide the necessary information for

computing an EPI plant score and proving plant eligibility. The information contained in this file will be reviewed by the Professional Engineer (PE) who must verify its accuracy prior to validating the Statement of Energy Performance. Examples of this information include raw data used to compute a score in the EPI along with supporting records such as fuel purchases, utility bills, other specific inputs as used in the EPI, internal records of production for the period of application, conversion factors, calculations, and related assumptions.

The formal certification file is a stand-alone, self-explanatory file and must be maintained for five years after certification. All source material, assumptions, communications, etc., are documented such that anyone reviewing the file would not need the corporate energy manager to explain why or how any aspect was executed.

The file may be physical (e.g., a three-ring binder), electronic (e.g., a specific "folder" or directory saved on a corporate file server), or some combination. Regardless of format, it is necessary all information is compiled in a centrally accessible location so an auditor can obtain immediate access to the formal certification file upon notification of an audit. For example, emails exchanged within the company or with EPA during the application process would be archived to the formal certification file, not maintained in a corporate email box. Centralizing all information helps assure that the formal certification file would not be lost when personnel change jobs.

The formal certification file contains all information submitted to EPA (or its designated reviewer in the case of proprietary data claims – currently Duke University, and, in the case of petroleum refineries, Solomon Associates) as part of the certification application. This includes the completed original Energy Performance Indicator, the original PE-stamped Statement of Energy Performance, and copies of any communications exchanged with EPA regarding questions, clarifications, and exceptions related to certification instructions and requirements. It will also include the original PE Verification Checklist at the conclusion of PE verification.

The formal certification file contains all source data underlying numbers entered into the EPI. This means:

- ✓ All energy data are supported by utility invoices or a download from a company database. Any conversion factors, calculations, or assumptions are documented.
- ✓ All measures of production (e.g., units produced, material inputs, labor hours) are supported by company records. Any conversion factors, calculations, or assumptions are documented along with the sources of all such information.
- ✓ Any metrics affecting eligibility to use the EPI are supported by calculations. For example, if a minimum of 50% of production must be from specific production categories in order to use the EPI, the documentation would include detailed records of products produced, how those products are mapped to the categories specified in the EPI, and the calculated total share of production from the relevant categories.
- ✓ All other characteristics unique to a specific type of EPI (e.g., maximum daily throughput, number of kilns, automobile wheelbase) are documented using types of records appropriate to the specific characteristic.
- ✓ Where required, all weather data (heating/cooling degree days) are supported by the underlying data and calculations.

Note: It is not adequate to document source data by referring to the company database from which it was derived. Company databases are often revised due to utility adjustments, and internal and external audits

and reconciliations. If data are taken from a database, some static record of the source data (e.g., monthly data downloaded into a non-linked spreadsheet, a screen-shot of the data from the date on which the data were used to populate the EPI) must be maintained in the formal certification file to show that the source data matched the values entered into the EPI on the date of EPI preparation.

Lastly, the formal certification file contains all non-data background information supporting the plant's eligibility for certification, and the preparation of submitted materials.

2. *Complete the EPI*: Download the most current version of the correct EPI for your industry and input the necessary data identified on the EPI. The dataset must include 12 months of continuous data ending within four months of when the application is submitted.

   Petroleum Refineries are scored by a separate system operated by Solomon Associates. For further information, please contact Mr. Bill Trout at Bill.Trout@SolomonOnline.com.

3. *Have a PE Review EPI and Validate the Statement of Energy Performance*: When the correct data are entered into the EPI and the plant scores 75 or higher, a PE must verify that all information used to generate an Energy Performance Score is accurate and documented in company records. The PE must sign and stamp the Statement of Energy Performance attached to the EPI. In providing his/her stamp upon the Statement of Energy Performance, a PE validates that the data entered into the EPI are accurate. To do this, the PE may visit the plant or may engage a representative to conduct all or part of the site visit while under his/her direction and control. However, the Statement of Energy Performance must still bear the seal and signature of the licensed PE who remains responsible for all work performed by others under his/her direction and control.

   The PE validating the Statement of Energy Performance is not required to be licensed in the same state where the plant is located, and may be licensed within any Canadian Province, or territory of the U.S. or Canada. The PE may also be employed by the company.

   For more information regarding the PE verification process, please refer to the *ENERGY STAR Industrial Plant Certification Professional Engineers' Guide for Validating Statements of Energy Performance.*

   For Petroleum Refineries, Solomon Associates performs the PE verification. For further information, please contact Mr. Bill Trout at Bill.Trout@SolomonOnline.com

4. *Determine EPI Third Party Verification Option*: The EPI score must be verified by EPA by replicating the results using the same plant data used by the corporate energy manager. There are two options for verification. Applicants will choose an option based on whether they consider the information used to generate an EPI score proprietary.
   a. Non-Proprietary: If data used to calculate the EPI are not considered proprietary information, send a print out of the EPI along with the Statement of Energy Performance to EPA as part of the application.
   b. Proprietary: If any information used to generate an EPI score is deemed proprietary, a copy of the EPI should be sent to Dr. Gale Boyd, the EPA-designated EPI reviewer. **Prior to sending the EPI, the applicant must notify EPA and receive approval to send the EPI to Dr. Boyd**. Dr. Boyd will recalculate the score using the propriety inputs and notify EPA of the outcome. Dr. Boyd's communication with EPA will become part of the official EPA file for this plant if EPA awards it with the ENERGY STAR plant certification. Additionally, the applicant must indicate on the Statement of Energy Performance that this option will be used to verify the EPI results.

      Upon request, Dr. Boyd will provide a non-disclosure agreement between Duke University and the applicant for this purpose. Company-provided non-disclosure agreements will not be considered.

      Dr. Gale Boyd's may be contacted at gab7@econ.duke.edu or (919) 660-6892.

For Petroleum Refineries, Solomon Associates performs the third party verification. For further information, please contact Mr. Bill Trout at Bill.Trout@SolomonOnline.com

5. Complete the additional application forms which include the Plant Award Application Letter and the Plant Award Specification Sheet. These forms may be found on the ENERGY STAR website or upon request from the applicant.

Application and Materials

After the corporate energy manager has determined eligibility and completed the requirements discussed in the "Before Applying" section above, copies of the following application documents will need to be sent via email to EPA at the address listed below under the "Where to Apply" section. The information that must be received by EPA in order to process applications for the ENERGY STAR plant certification includes:

1. Plant Award Application Letter printed on company letterhead and signed by the corporate energy manager. Applicant should keep the original on hand for their formal certification file.
2. Statement of Energy Performance validated by the PE. Applicant should keep the original on hand for their formal certification file.
3. EPI if data are non-proprietary. If proprietary, the EPI should not be submitted with the application. Upon the request from EPA, the proprietary EPI should be sent to the EPA-designated EPI reviewer (Dr. Gale Boyd), who will then send a signed review letter to EPA. For Petroleum Refineries, the Solomon Associates PE certification letter serves as the EPI and should be submitted with the application. For EPIs that adjust for weather, the source of the HDD and CDD data, including website URL and weather station name must be provided. Applicant should keep original EPI on hand for their formal certification file.
4. Plant Award Specification Sheet.
5. PE Verification Checklist. Applicant should keep the original on hand for their formal certification file.

All application material can be found on the ENERGY STAR website, or you may request them from EPA.

EPA Application Review

Upon receipt of an application, EPA will conduct a review and make the decision on whether the plant is eligible for the ENERGY STAR plant certification. EPA will follow this procedure:

1. Review application for completeness. Contact applicant if any information is missing.
2. Perform a compliance screen to ensure the plant meets the compliance criteria in the "Determining Eligibility" section above.
3. Ensure any other industry-specific requirements have been met.
4. Verify that an EPI score of 75 or higher is produced by the current EPI tool by using the data contained in the EPI printout, or upon receipt of a confirmation letter from an EPA-designated EPI reviewer.
5. If a plant meets all requirements and has a favorable EPA review, EPA will inform the corporate energy manager of the award of the ENERGY STAR plant certification.

Award of the ENERGY STAR Plant Certification

Award of the ENERGY STAR plant certification represents plant energy performance at the time of the application. Certified plants are awarded a congratulatory letter to the company's CEO and corporate energy manager, a certificate of achievement, decals for identifying the plant's certification, the option to obtain flags/banners/plaques, and listing in the ENERGY STAR certified plant registry. The certification year is dated with the year the application is *approved*, regardless of the period ending date on the Statement of Energy Performance. Therefore, corporate energy managers are encouraged to reapply in subsequent years to earn the ENERGY STAR plant certification.

EPA Review of Records

The integrity of ENERGY STAR, its representation of energy efficiency at a national level, and the expectation of the U.S. public that EPA must uphold the impartiality of any environmental labeling effort it undertakes requires that the process for awarding the ENERGY STAR plant certification be public and transparent.

EPA reserves the right to request and review any records which support the data used to produce the energy performance score for a plant. Therefore, corporate energy managers must maintain a formal certification file for each plant for which EPA has awarded the ENERGY STAR certification.
The formal certification file must be maintained for five years.

When to Apply
A plant is welcome to apply any time during the year. However, *the EPA will certify a plant with the year its application is approved, regardless of the period ending date found on the plant's Statement of Energy Performance and the receipt of application*.

Please note that the application must be received within 4 months of the Statement of Energy Performance period ending date.

Note: If this is your first time applying for plant certification, we recommend contacting EPA prior to beginning the application process.

Reapplication for the ENERGY STAR Plant Certification
Plants that have been awarded with the ENERGY STAR certification are eligible to reapply one year after the ending date of their period of performance used for the prior year application, and must use 12 months of continuous non-overlapping data.

Where to Apply
Corporate energy managers should submit application packages via email to hindin.rebecca@epa.gov.

Additional Information
For further information and/or questions, contact Rebecca Hindin at hindin.rebecca@epa.gov or (202) 343-9939.