



Industrial Energy Consumers of America

The Voice of the Industrial Energy Consumers

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Comments by: The Industrial Energy Consumers of America (IECA)
Regulation 40 CFR 1200 Waste Energy Recovery Registry
Environmental Protection Agency
Docket ID No.EPA-HQ-OAR-2008-0201

The Industrial Energy Consumers of America (IECA) is a nonpartisan association of leading manufacturing companies with \$900 billion in annual sales and with more than 850,000 employees nationwide. It is an organization created to promote the interests of manufacturing companies for which the availability, use and cost of energy, power or feedstock play a significant role in their ability to compete in domestic and world markets. IECA membership represents a diverse set of industries including: plastics, cement, paper, food processing, brick, chemicals, fertilizer, insulation, steel, glass, industrial gases, pharmaceutical, aluminum and brewing.

IECA and its member companies are strongly supportive of cost-effective energy efficiency and conservation. Because energy is a significant cost to our operations and because we compete in global markets, it is important to use energy efficiently and to recycle energy whenever it is possible to do so economically. We believe that the Waste Energy Recovery Registry is an important first step in determining how much potential exists. Most importantly, the Waste Energy Recovery Registry can provide a vehicle for financial incentives to capture and utilize waste energy within our facilities and/or to sell excess power into the grid if important changes are made.

The intentions of Congress appear to be to find out where viable waste energy exists and incentivize its capture to reduce GHG emissions and increase national energy efficiency. However, IECA is concerned that the EPA proposed ruling may potentially contradict the legislative intent because it would:

1. Deny admission to the Registry by omitting revenues from the pay-out calculation. Omitted were: thermal sales or savings, excess power sales, and the incentives themselves. That leaves only projects justified on avoided power purchases.
2. Deny self-certification as a means of entering projects on the Registry by proposing a Waste Energy Survey Tool as the only means of meeting qualifications, including a "primary purpose" exclusion determined by unstated means. (The tool is not available for testing.)
3. Promote the Registry as "the basis" for incentives ("sole basis").

Unless changes are made to the proposed Rule, a significant volume of waste energy projects will not be included in the registry and not qualify for Congressional financial incentives under Section 372, Section 373 and Section 374 of EPCA. Without the

changes outlined below, the Congressional objective of the Waste Energy Recovery Registry will not be achieved.

IECA and its member companies look forward to working with you to make this program a success.

1. Methods by which a project is certified and included in the Registry

EPA's only proposed process for inclusion into the Registry is a screening program called the Waste Energy Survey Tool (WEST). Using WEST unfortunately excludes 4 out of 6 types of revenues a project could generate in payout:

- a) Power generation for self-use - included
- b) Power generation for sale – excluded
- c) Thermal energy for self-use – excluded
- d) Thermal energy for sale – excluded
- e) \$10/MW-hr power generation incentive – included
- f) \$10/3.412 Million BTU thermal generation incentive excluded

By not accounting for the revenues, WEST excludes 3 out of 4 types of projects: ones that generate thermal energy like steam for 1) self-use or 2) sale and 3) ones that produce power in excess of self-use for sale. Therefore WEST excludes a vast number of available waste heat sources from both the knowledge base of the government (the Registry) and this avenue for incentives. Also, WEST does not provide an opportunity for auxiliary environmental benefits to be acknowledged in justification.

IECA Recommendation:

1. Make WEST inclusive of more types of projects by including all types of project revenue in the 5 year payout calculation.
2. Design a self certification program regardless.

2. Purpose and effect of the registry

EPA proposed rule would establish criteria for inclusion in the Registry. EPA's stated additional purpose (in preamble) is to have the Registry serve as "the basis" for projects to qualify for EPCA Section 373 incentives of \$10/MW-hr or \$10/3.412 million BTU and Section 374 incentives of assured access to market and retail based power rates.

EPA's preamble to the ruling is not written in the rule itself. So, the effect is not clear. The legislation calls for the DOE to determine eligibility for the Section 373 grants, presumably with its own established determination of the merits of each project. Relative to the Registry, the DOE would merely "publicize the availability of the grant program known to owners or operators of recoverable waste energy sources and sites listed on the Registry". However, incentives under Section 372 from the DOE only flow to projects on the Registry (these include technical support and ½ funding of feasibility studies).

In practicality it may be better that the DOE use the Registry as the source of eligible projects for all the incentives (Section 372, Section 373 and Section 374). Therefore, it is important that the registry be inclusive in its nature.

There is no explicit legislative reference establishing the reason for the Registry within Sections 372 to 374 and so the purpose would presumably be EPCA's in general. Obviously the nation cannot support something it does not know about. So, we presume the purpose of the registry is to inform the government of the availability of useful waste energy as a first step. To that end, legislation provides only that the Registry is to include recoverable waste energy sources that have: Major industrial and large commercial sources (defined by EPA); and energy recovery economics that meet a 5 year payout (including incentives).

Information in the Registry would indicate the quantity and quality of energy available. The legislation also says that "The criteria shall include - standards to ensure that projects proposed for inclusion in the registry are not developed or used for the primary purpose of sales of excess electric power under the regulatory provisions of this part". (Comment: This does not require that such a project be excluded from the registry. EPA has however interpreted it this way in its ruling.)

IECA Recommendation:

The Registry can be used by DOE as the gatekeeper to Section 372, 373 and 374 incentives. Therefore, the Registry must include all voluntary sources of waste energy that meet a 5 year payout. Statements by owner-operators that their site is not primarily intended for excess power sales should be taken at face-value until disproved. EPA should clarify whether its ruling is designed to create a suitable (comprehensive) registry that DOE may defer to (as a gatekeeper) for Section 372, 373 or 374 incentives.

3. The primary purpose criteria

The intent appears to be to avoid subsidizing firms getting into the power generation business by creating "new fuel burning" sources, an unwanted side-effect to the desired intention to capture existing waste energy. Meeting at least one of the proposed primary purpose criteria demonstrates that a facility will not be developed primarily for sales of excess electric power. They are:

- i) 50% or more of the Aggregate Energy Output must be used for industrial or commercial purposes and not sold to a utility.
- ii) If a state does not implement Section 374 standards (that would assure a market and price for excess power sales) then (i) is waived.
- iii) If a utility agrees jointly with a project owner to waive (i), then it is waived.

Our interpretation is that the EPA is using an empirical rule to determine if a project was created to sell power to a utility under the guise of waste energy. EPA understandably wants to avoid situations where a developer puts up a project to generate 1% steam for use in product manufacture alongside 99% electricity for mandated sales to a utility, the later being a counterproductive intent. In our view, it is difficult to discern the intent of a project with a one-size fits-all empirical rule.

The definition of Aggregate Energy Output is confusing: "The total useful output of the fuel driving the source including electricity generated by a project and thermal energy recovered in or driving a project and/or process". Neither fuel nor source is defined and the EPA has not provided the WEST algorithm for examination. EPA provides good

examples, but not in the proposed rule itself and so there is likely to be confusion on what projects meet criterion (i).

IECA Recommendation:

- 1) It is only reasonable to assume that any facility that exists in operation prior to this rule operates for some other primary purpose than generating existing waste energy in any form or gaining the incentives of this legislation to capture it. Therefore, a waiver should be provided from meeting any primary purpose criteria for sources of waste energy existing before the legislation took effect.
- 2) New sources (after the legislation) should submit to a determination by EPA through a self-certification process (similar to the 60% efficiency also required and determined by EPA).
- 3) We encourage the Aggregate Energy Output definition be expanded for clarification.

4: Thresholds for initial Registry launch and ultimate Registry inclusion

Our concern is that because the initial launch is not actually based on stack data, many waste heat projects will not make the initial launch and it is not clear when the next opportunity will arise for inclusion.

The proposed draft states that for the initial launch we must submit within 60 days of the WEST release and thereafter, on a rolling basis. For ultimate inclusion, industrial entities need only meet a secondary threshold of 500F, 7000 to 50,000 scfm (in combination with temperature meeting 1 MW potential generation), and 4500 hours/year; and for commercial entities, thermal or cooling load of 2.5 MMBTU/hr and 4500 hrs/year.

EPA does not state the purpose of the initial threshold in the ruling, but in preamble only states its intention to contact the sources meeting the initial threshold (source of data unknown) for its initial launch. In opinion, the secondary threshold should not have a minimum. Also, we know of heat sources under 500F that can be recovered and utilized with the economic incentives provided for this program. We encourage the registry to be inclusive of sources under 500F.

Many processes are exothermic and have a lot of waste heat, but less than 100 MMBTU/hr fuel use and so these will not be aware of the WEST release and may miss the opportunity for the initial launch. It is unclear when projects submitted after the initial launch would be entered into the Registry. (We encourage the EPA to define "Rolling basis".)

IECA Recommendation:

It is more meaningful to reach out to actual waste heat emitters evident from National Emissions Inventory data which could be screened against the secondary threshold. This, in addition to the 100 MMBtu/hr rate could be used for initial launch. Secondly, the registry should allow waste heat sources that are less than 500F to be included in the Registry.

5: New sources- 60% criteria for efficiency and waiver for technology limitation

EPA requires that new sources must capture at least 60% of the total energy value of the fuels used at the source. EPA can waive this criterion in their determination for inclusion in the Registry if they determine that the technology cannot meet it.

IECA Recommendation:

The mechanism is not clear by which EPA would know a project existed of this type. There needs to be a mechanism in WEST or in a self certification system that would notify the EPA for further consideration relative to this criterion. EPA should explain how it would make such a determination.

Submitted by:
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