

Request for Information: Defining “an area in which there is inadequate electric service” under Section 242 of the Energy Policy Act of 2005

DATE: July 8, 2021
SUBJECT: Request for Information (RFI)

Description

The U.S. Department of Energy (DOE), Office Energy Efficiency and Renewable Energy (EERE), and the Water Power Technologies Office (WPTO) seeks stakeholder input on factors to consider in relation to defining “an area where there is inadequate electric service”. WPTO proposes to define “an area in which there is inadequate electric service” as follows:

“An area in which there is inadequate electric service means a geographic area that lacks access to an interconnected electrical grid or where a customer may not reasonably access electrical energy services; is subject to frequent electric outages, based on common reliability metrics; or where the cost of electricity is significantly above the typical residential electricity cost.”

The above definition will be applied in accordance with the definition of a qualified hydroelectric facility set in Section 242 of the Energy Policy Act of 2005, 42 U.S.C. § 15881 (“Section 242”), as amended by Section 3005(a) of the Energy Act of 2020.

Background

On August 8, 2005, Congress created the Section 242 program pursuant to Section 242 of the Energy Policy Act of 2005, which originally defined the term “qualified hydroelectric facility” as “a turbine or other generating device owned or solely operated by a non-Federal entity which generates hydroelectric energy for sale and which is added to an existing dam or conduit.”

Section 242 established an incentive payment program to benefit owners of qualified hydroelectric facilities who add electrical generation equipment to existing dams or conduits. Calendar Year 2019 was the seventh year that DOE issued payments pursuant to Section 242. On December 27, 2020, Congress amended Section 242 under Section 3005(a) of the Energy Act of 2020 (Pub. L. 116-260). Specifically, Congress expanded the definition of a “qualified hydroelectric facility.”

This is a Request for Information (RFI) only. EERE will not pay for information provided under this RFI and no project will be supported as a result of this RFI. This RFI is not accepting applications for financial assistance or financial incentives. EERE may or may not issue a Funding Opportunity Announcement (FOA) based on consideration of the input received from this RFI.

Prior to this expanded definition, qualified hydroelectric facility was defined as:

“...a turbine or other generating device owned or solely operated by a non-Federal entity which generates hydroelectric energy for sale and which is added to an existing dam or conduit.”

The expanded definition of qualified hydroelectric facility is as follows:

“The term “qualified hydroelectric facility” means a turbine or other generating device owned or solely operated by a non-Federal entity—

(A) that generates hydroelectric energy for sale; and

(B)

(i) that is added to an existing dam or conduit; or

(ii)

(I) that has a generating capacity of not more than 20 megawatts;

(II) for which the non-Federal entity has received a construction authorization from the Federal Energy Regulatory Commission, if applicable; and

(III) that is constructed in an area in which there is inadequate electric service, as determined by the Secretary, including by taking into consideration—

(aa) access to the electric grid;

(bb) the frequency of electric outages; or

(cc) the affordability of electricity.”

42 USC § 15881(b)(1) (emphasis added). WPTO has proposed defining these additional eligibility requirements for Section 242 pursuant to Section 3005(a) of the Energy Act of 2020 as laid out in the bolded text, and is seeking feedback on these proposed definitions.

Purpose

The purpose of this RFI is to solicit feedback from industry, academia, research laboratories, government agencies, and other stakeholders on factors that should be considered in defining “an area in which there is inadequate electric service” as “a geographic area that lacks access to an interconnected electrical grid or where a customer may not reasonably access electrical energy services; is subject to frequent electric outages, based on common reliability metrics; or where the cost of electricity is significantly above the typical residential electricity cost,” in accordance with Section 242 of the Energy Policy Act of 2005, as amended by Section 3005(a) of the Energy Act of 2020. This is solely a request for information and not a Funding Opportunity Announcement (FOA). EERE is not accepting applications

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Disclaimer and Important Notes

This RFI is not a Funding Opportunity Announcement (FOA); therefore, EERE is not accepting applications at this time. EERE may issue a FOA in the future based on or related to the content and responses to this RFI; however, EERE may also elect not to issue a FOA. There is no guarantee that a FOA will be issued as a result of this RFI. Responding to this RFI does not provide any advantage or disadvantage to potential applicants if EERE chooses to issue a FOA regarding the subject matter. Final details, including the anticipated award size, quantity, and timing of EERE funded awards, will be subject to Congressional appropriations and direction.

Any information obtained as a result of this RFI is intended to be used by the Government on a non-attribution basis for planning and strategy development; this RFI does not constitute a formal solicitation for proposals or abstracts. Responses to this notice will be treated as information only. EERE will review and consider all responses in its formulation of program strategies for the identified materials of interest that are the subject of this request. EERE will not provide reimbursement for costs incurred in responding to this RFI. Respondents are advised that EERE is under no obligation to acknowledge receipt of the information received or provide feedback to respondents with respect to any information submitted under this RFI. Responses to this RFI do not bind EERE to any further actions related to this topic.

Confidential Business Information

Pursuant to 10 CFR 1004.11, any person submitting information that he or she believes to be confidential and exempt by law from public disclosure should submit via email well-marked copies: one copy of the document marked “confidential” including all the information believed to be confidential, and one copy of the document marked “non-confidential” with the information believed to be confidential deleted. DOE will make its own determination about the confidential status of the information and treat it according to its determination.

Evaluation and Administration by Federal and Non-Federal Personnel

Federal employees are subject to the non-disclosure requirements of a criminal statute, the Trade Secrets Act, 18 U.S.C. 1905. The Government may seek the advice of qualified non-Federal personnel. The Government may also use non-Federal personnel to conduct routine, nondiscretionary administrative activities. The respondents, by submitting their response, consent to EERE providing their response to non-Federal parties. Non-Federal parties given access to responses must be subject to an appropriate obligation of confidentiality prior to being given the access. Submissions may be reviewed by support contractors and private consultants.

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Request for Information Categories and Questions

In accordance with Section 242 of the Energy Policy Act of 2005, as amended, WPTO proposes the following definition for “an area in which there is inadequate electric service”:

“An area in which there is inadequate electric service means a geographic area that lacks access to an interconnected electrical grid or where a customer may not reasonably access electrical energy services; is subject to frequent electric outages, based on common reliability metrics; or where the cost of electricity is significantly above the typical residential electricity cost.”

Category 1: Inadequate Electric Service

1. Should the evaluation of “inadequate electric service” consider critical electric infrastructure¹ or resilient systems²?
 - a. Should the evaluation of “inadequate electric service” consider resource adequacy, or other uses of “adequacy” as a standard electric system planning term?
2. Are there terms within the proposed definition that require clarification or elaboration?
3. Should inadequate electric service for a geographic area be determined at the local utility service level? Should it be determined at the state, regional, or national level?

Category 2: Access

4. What challenges do owners and operators of hydroelectric facilities face in gaining physical access to the electric grid?
5. Should special considerations be made for hydroelectric facilities operating outside of the interconnected U.S. electrical grid such as independently operating grids of Alaska, Hawaii, the Electric Reliability Council of Texas (ERCOT), Puerto Rico, or territories of the United States?

¹ Critical Electric Infrastructure means a system or asset of the bulk-power system, whether physical or virtual, the incapacity or destruction of which would negatively affect national security, economic security, public health or safety, or any combination of such matters. <https://ecfr.io/Title-10/Section-1004.13>

² Resilience is defined as the ability of an electric power system to resist, absorb or withstand the impact of changes in conditions that have the potential to affect its operation, the ability to adapt in response to the change, and the ability to recover and restore system functionality rapidly. <https://publications.anl.gov/anlpubs/2021/03/166807.pdf>

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Category 3: Frequent Electric Outages

6. What metrics are appropriate for consideration of the frequency of electrical outages? For example, WPTO is considering examining System Average Interruption Duration Index (SAIDI) / System Average Interruption Frequency Index (SAIFI)³ as possible metrics.
7. Are there other metrics available to assess the adequacy of electric service that are suitable for comparison? If so, please identify the metrics and how they have been used to compare broad range or regional electrical outages previously.

Category 4: Affordability of Electricity

8. Is retail cost of energy a reasonable proxy for affordability, or would other tools that capture the ratio of income to energy costs, such as the Low-Income Energy Affordability Data (LEAD) Tool⁴ or the Electricity Affordability Metrics Tool⁵, provide more useful information?
9. When determining the affordability of electricity, should the cost of electricity be compared against the national average?
10. Balancing comprehensive data and approaches with transparent and accurate processes, what other affordability indices or metrics are available that should be consulted when comparing affordability across an area?

Category 5: General Questions

11. Are there any other related issues that WPTO should consider regarding the proposed definition and its intended use?

Request for Information Response Guidelines

Responses to this RFI must be submitted electronically to hydroincentive@ee.doe.gov no later than 11:59pm (ET) on September 7, 2021. Responses must be provided as attachments to an email. It is recommended that attachments with file sizes exceeding 25MB be compressed (i.e., zipped) to ensure message delivery. Responses must be provided as a Microsoft Word (.docx) attachment to the email, and no more than 2 pages in length, 12 point font, 1 inch margins. Only electronic responses will be accepted.

³ SAIDI measures the total time an average customer experiences a non-momentary power interruption in a one-year period. SAIFI is an index that measures the frequency of interruptions.

<https://www.eia.gov/todayinenergy/detail.php?id=45796>

⁴ <https://www.energy.gov/eere/slsc/low-income-energy-affordability-data-lead-tool>

⁵ <https://gmlc.doe.gov/project-highlights/mapping-electricity-affordability>

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EERE will not respond to individual submissions or publish publicly a compendium of responses. A response to this RFI will not be viewed as a binding commitment to develop or pursue the project or ideas discussed.

Respondents are requested to provide the following information at the start of their response to this RFI:

- Company / institution name;
- Company / institution contact;
- Contact's address, phone number, and email address.

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