

BEFORE THE PUBLIC UTILITY COMMISSION OF OREGON

UM 1751

In the Matter of)
)
OREGON PUBLIC UTILITY COMMISSION) PORTLAND GENERAL ELECTRIC'S COMMENTS
) ON DRAFT ENERGY STORAGE GUIDELINES
) FOR PROJECT GUIDELINES, PROPOSAL
) GUIDELINES, AND COMPETITIVE BIDDING
) REQUIREMENTS
Implementing an Energy Storage
Program Guidelines

Pursuant to Order No. 16-316 issued August 19, 2016, Portland General Electric Company (PGE or the Company) submits these comments on the Public Utility Commission of Oregon's (Commission) draft guidelines for electric companies to use in considering and designing energy storage comments. PGE provided comments related to Part C. Storage Potential Evaluation Requirements on September 16, 2016. PGE provides the following comments related to parts A., B., and D.

A. PROJECT GUIDELINES

Electric companies should consider the following when selecting projects to submit for authorization:

- 1. Electric companies are encouraged to submit multiple projects with an aggregate capacity close to the full one percent of 2014 peak load allowed by HB 2193.*

PGE supports the above guideline.

- 2. Electric companies are encouraged to submit a range of projects that are differentiated by use case, application, or other differentiating factor.*

PGE supports the above guideline.

- 3. Electric companies are encouraged to submit a portfolio of projects that balance technology maturity, technology potential, short- and long-term project performance and risks, and short- and long-term potential value.*

PGE supports the above guideline, but requests a definition for "technology potential."

4. *Electric companies are encouraged to submit projects that can serve multiple applications.*

PGE supports the above guideline.

5. *Electric companies are encouraged to submit projects that are strategically located to help defer or eliminate the need for system upgrades, ~~provide ancillary services, provide supplemental generation capacity~~ **provide voltage control and adaptive conservation voltage reduction, improve reliability in a microgrid, or supply some other location-specific service.***

PGE Response: Some of the items cited are services or benefits that are not location specific. Both ancillary services and supplemental generation capacity provide system wide benefits. PGE proposes to remove the items that provide system-wide benefits. In addition, PGE proposes other examples of location-specific services.

6. *Electric companies are encouraged to identify qualified vendors and viable storage technologies through a Request for Information (RFI) process.*

PGE supports the above guideline.

7. *Electric companies are encouraged to use established models—such as the Pacific Northwest National Laboratory's Battery Storage Evaluation Tool or the Electric Power Research Institute's Energy Storage Valuation Tool—to estimate the value of storage applications.*

PGE supports the above guideline.

B. PROPOSAL GUIDELINES

Each proposal must include the following description and analysis of each proposed project:¹

1. *Technical specifications for each project, including:*
 - a. *The capacity of the project to store energy **including both the amount of energy the project can store and the rate at which it can charge and discharge;***
 - b. *The location of the project;*
 - c. *A description of the electric company's electric system needs and the application that the energy storage system will fulfill as the basis for the project;*
 - d. *A description of the technology necessary to construct, operate and maintain the project, including a description of any data or communication system necessary to operate the project.*

¹ The first three elements (including their sub-elements) in the list are taken verbatim from HB 2193. The remaining elements are additional specifications to be adopted by the Commission

- e. *A description of the types of services that the electric company expects the project to provide upon completion; and*
- f. *An analysis of the risk that the electric company will not be able to complete the project.*

PGE proposes additional wording to reflect that the capacity of a storage project includes both the overall amount of energy the project stores, measured in megawatt hours, and the rate at which it charges and discharges, measured in megawatts. While the original language is from HB 2193, PGE's proposed language provides additional detail and clarity.

2. *The estimated cost of each project, including:*

- a. *The estimated capital cost of the project;*
- b. *The estimated output cost of the project; and*
- c. *The amount of grant moneys available to offset the cost of the project.*

PGE supports the above guideline.

3. *The benefits of each project to the electric company's electric system, including:*

- a. *Projected in-state benefits to the electric system;*
- b. *Projected benefits to the electric company's region-wide electric system; and*
- c. *The potential benefits to the electric company's entire electric system if the electric company installs the energy storage system technology that is the basis for the project system-wide.*

PGE supports the above guideline.

4. *Reasoning for selecting chosen technology, grid location, application, and ownership structure, with supporting analysis;*

PGE supports the above guideline.

5. *Comprehensive description of the project;*

PGE supports the above guideline.

6. *Plan for constructing, maintaining, and operating the storage system;*

PGE supports the above guideline.

7. *Comprehensive analysis of all identified costs over the life of the project;*

PGE supports the above guideline.

8. *Comprehensive assessment of **identified** project risks over the life of the project;*

PGE proposes to include “identified” project risks, just as costs should include identified costs in guideline 7.

9. *Comprehensive assessment of all identified quantitative benefits to the electric company’s system and discussion of identified qualitative benefits over the life of the project;*

PGE proposes to include “identified” quantitative benefits, just as costs should include identified costs in guideline 7. As the utilities gain experience with energy storage, additional benefits may be identified, just as additional costs may be identified.

In addition, PGE proposes language to clarify that the scope of quantitative benefits to be identified is limited to benefits to the electric system. With regard to qualitative benefits, we propose a discussion as opposed to a comprehensive analysis as both the identification of and the value of qualitative benefits of energy storage may be subjective. The utilities should make best efforts to identify and describe all qualitative benefits.

10. *Description of methodology for assessing project benefits, including the aggregation of benefits;*

PGE supports the above guideline.

11. *Cost-effectiveness of the storage system including benefit-cost ratios and net present value revenue requirements over the storage system lifetime, and all underlying inputs and assumptions used in the calculation;*

PGE supports the above guideline.

Projected trends in storage system cost and performance;

PGE supports the above guideline.

12. *Strategy for large-scale deployment of the technology over time, if applicable;*

PGE supports the above guideline.

- ~~13. *Comparative analysis of: (1) the proposed storage solution, and (2) other storage and non-storage solutions for the proposed application; and*~~

PGE proposes to remove this guideline as this comparison is the standard basis for economic evaluation performed for guideline number 11. Alternatively, PGE proposes to add the language into guideline 11 rather than include it as a separate guideline.

14. *Data collection and evaluation plan with identified research objectives.*

PGE supports the above guideline.

D. COMPETITIVE BIDDING REQUIREMENTS

For the present purpose of bidding HB 2193 projects, we propose the following limited requirements:

1. *An electric company may award a contract for a project without competition if it determines and presents justification that only a single vendor or contractor is capable of meeting the requirements of the project.*

PGE supports the above guideline.

2. *Where the requirements for sole source procurement are unmet, electric companies must use a competitive process to award contracts.*
 - a. *The electric companies will bear the burden of demonstrating that they followed a fair, competitive solicitation process to identify open to all vendors with requisite expertise, experience, and capability to install viable projects.*
 - b. *The electric companies must give the Commission and stakeholders the opportunity to review the companies' Request for Proposal (RFP) design and offer nonbinding input.*
 - c. *The electric companies must summarize and report to the Commission their solicitation process and scoring approach. The report should be included with the formal project proposal submitted to the Commission, or, if bidding occurs after Commission authorization, at a special public meeting to follow.*

PGE proposes to modify the wording in 2.a. to read, “open to all” vendors rather than “to identify” vendors. The solicitation should be open to all capable bidders that would be notified through the standard process.

3. *The Commission will approve by order the project proposal(s) from each electric company, or direct the electric company to revise and resubmit its proposal(s) for Commission approval. The Commission will target a decision within 60 days after the utility files its proposals.*

PGE proposes to include the additional guideline above to provide the electric companies with Commission authorization of project proposals. PGE seeks clarity to reduce the risk of cost recovery for a project or projects above 5 MWh, given that energy storage projects will likely be priced above market relative to other solutions.

Dated this 30th day of September, 2016

Respectfully Submitted,



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