

**BEFORE THE PUBLIC UTILITY COMMISSION  
OF OREGON  
UM 1751**

In the Matter of	)	
	)	
OREGON PUBLIC UTILITY	)	COMMENTS OF
COMMISSION	)	THE OREGON DEPARTMENT OF
	)	ENERGY
	)	
Implementing Energy Storage Program	)	
Guidelines pursuant to House Bill 2193	)	
_____	)	

**Summary**

The Oregon Department of Energy (ODOE or department) is pleased to submit these comments in response to the Public Utility Commission’s (PUC or Commission) Order No. 16-316 proposing guidelines pursuant to House Bill 2193 (2015) to implement an energy storage program. The comments ODOE is submitting at this time address section A, “Project Guidelines,” and section B, “Proposal Guidelines.” The department’s comments focus on two issues: the potential for the Project Guidelines to be unclear on the minimum requirements for proposed projects, and the complexity of the effort for electric companies to identify location-specific attributes for energy storage proposals.

**Need for clear minimum requirements in the Project Guidelines**

Order 16-316 begins the section on Project Guidelines with the statement, “Electric companies should consider the following when selecting projects to submit for authorization....” Seven project guidelines are then described, with the Commission stating for each that “electric companies are encouraged” to follow the guideline. ODOE appreciates the effort of the PUC to recognize that the electric companies are undertaking evaluation of new technologies and are learning to use new tools for evaluating technical merit as well as establishing new business cases. Therefore, the draft guidelines seem to reflect that it would be unreasonable to require that each utility company comply with all seven guidelines in order for their respective proposals to be considered complete and responsive.

The department is concerned, however, that the proposed Project Guidelines do not establish any minimum requirements, nor adequately distinguish between project attributes which are a high priority for the Commission and those which are considered to be of lesser priority or are longer term goals. Without these distinctions, the department anticipates the Commission may receive projects with widely varying parameters which may be difficult to

compare and evaluate for effectiveness and rate-payer benefit.

The department would like the Commission to consider changing some of the Project Guidelines to requirements, rather than outcomes that are encouraged. The department's review of HB 2193 concludes that a few of the seven proposed Project Guidelines can be clearly mapped onto language in the bill, while others have a less clear connection. For example, Project Guidelines numbers two and three encourage utilities to propose a range of projects differentiated by several benefits as well as a portfolio of projects that balances a variety of values and risks. These guidelines align quite clearly with Section 3(1)(a) of HB 2193. HB 2193 may be a useful guide for distinguishing between higher priority and lesser priority outcomes, and hence which project attributes should be required and which should be encouraged.

The department appreciates the Commission specifically encouraging the use of tools made available to the electric companies by the National Laboratories for evaluating energy storage options and business cases. The department has been gaining experience using the tools from the National Laboratories, as well as encouraging electric utilities across the state to begin using them.

### **Proposal Guidelines – Challenges in Optimizing Location of Projects**

The department appreciates the organization and detail in the Proposal Guidelines and the clear language about what electric companies must submit. The draft Proposal Guidelines encompass the necessary description and analysis of the proposed energy storage system in adequate detail to facilitate a meaningful review by the Commission, while being within the reach of what is achievable by the electric companies.

However, ODOE does have one area of concern. ODOE recently submitted comments to the Commission regarding Section C, "Storage Potential Evaluation Requirements," in which we highlighted the challenge for utilities in finding the optimal locations for energy storage. The proposed Proposal Guidelines also would require evaluation of location-specific services, costs and benefits in order to fulfill the requirement under 3.c. to include description and analysis of:

*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.*

For ease of reference, we repeat here a portion of our previous comments to the Commission on the challenge of assessing the electric company's entire system for optimizing the application of energy storage:

To identify system locations with the greatest storage potential would require the development of an energy storage sizing and siting optimization model that takes into account, among other things, the multitude of different use cases of energy storage projects, optimized for various outcomes (e.g., maximizing the value of the storage projects or minimizing overall system costs) across the utility's entire electric

transmission and distribution system. ODOE recommends that the Commission consider the existing academic and industry literature on the complexity of developing energy storage sizing and siting optimization tools, for example:

[http://www.ee.washington.edu/research/real/Library/Reports/storage\\_siting\\_and\\_sizing.pdf](http://www.ee.washington.edu/research/real/Library/Reports/storage_siting_and_sizing.pdf).

The department recognizes that the language requiring utility proposals to include an assessment of benefits to the entire system originates from Section 3(2) of HB 2193. However, given the challenges outlined above, ODOE recommends that the Commission consider moving section 3.c. from Section B, "Proposal Guidelines," to Section A, "Project Guidelines," and, furthermore, that the Commission consider encouraging the electric company to undertake such an evaluation rather than requiring it. The outcome of multiple workshops for UM 1751 in 2016 has made it clear that the electric companies need to gain more experience and build the evaluation methodologies to provide the location-specific benefits for a technology in a hypothetical system-wide deployment.

The department appreciates the opportunity to comment on the proposed guidelines, and appreciates the work of the Commission in developing them.

DATED this Thursday, September 29, 2016.

Respectfully submitted,

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