## BEFORE THE PUBLIC UTILITIES COMMISSION OF THE STATE OF CALIFORNIA

Order Instituting Rulemaking Pursuant to Assembly Bill 2514 to Consider the Adoption of Procurement Targets for Viable and Cost-Effective Energy Storage Systems.

Rulemaking 10-12-007 (Filed December 16, 2010)

# COMMENTS OF ENBALA POWER NETWORKS, INC. RESPONDING TO ASSIGNED COMMISSIONER'S RULING PROPOSING STORAGE PROCUREMENT TARGETS AND MECHANISMS AND NOTICING ALL-PARTY MEETING

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In accordance with the Rules of Practice and Procedure of the California Public Utilities Commission ("Commission") ENBALA Power Networks, Inc. ("ENBALA", or the "Company") hereby submits these comments on the Assigned Commissioner's Ruling Proposing Storage Procurement Targets and Mechanisms and Noticing All-party Meeting, issued by Commissioner Carla J. Peterman on June 10, 2013.

#### I. INTRODUCTION

ENBALA submits these opening comments for two reasons. First, to state our support in the Commission's continued effort in transforming the California electrical market; advancing a technology with the objectives of increasing the optimization of the power system, supporting the integration of renewable energy and reducing greenhouse gas emissions. Secondly, ENBALA believes that its experience providing Regulation Service in wholesale electrical markets and assisting utilities with renewable power integration utilizing demand-side process storage provides a unique insight to innovative storage solutions. ENBALA believes Demand-Side Energy Storage will have an increasingly important role to play in managing California's power system and supports the Commission including Demand-Side process storage in the Customer end use category. This will allow for a diverse set of energy storage technologies, which will be necessary in developing a robust market transformation.

#### **II. COMPANY BACKGROUND**

ENBALA Power Networks is a Smart Grid technology company that continuously connects large electricity users to the grid to deliver grid balancing flexibility to electricity system operators and utilities. ENBALA's innovative Grid Balance platform captures and then intelligently aggregates inherent demand-side process storage from connected loads, to respond to the real-time needs of the power system, increasing its reliability, efficiency and reducing greenhouse gases. ENBALA's technology is commercially available, providing Regulation Service in the competitive PJM wholesale electricity market and a wind integration solution to New Brunswick Power and Nova Scotia Power for the PowerShift Atlantic Project.<sup>1</sup> In addition, ENBALA is at various stages of implementation with a number of other North American ISO's and utilities, most recently being awarded a contract this April to provide the Independent Electrical System Operator of Ontario (IESO) with +/- 4 MW Regulation Service through a competitive RFP process for Alternative Sources of Regulation. The ENBALA Power Network platform is extensible to many other services that can benefit the power system as it is capable of shifting loads in seconds, to minutes, to hours.

### **III. DEMAND-SIDE PROCESS STORAGE**

Process storage refers to storing energy in the form in which it will be used. This type of storage alters the pattern of power use in processes that work with various types of equipment (e.g. industrial pumps, aerators, fans, HVAC equipment, compressors), shifting when electrical loads consume energy to align with the needs of the power system. Demand-Side process storage is an innovative form of storage

<sup>&</sup>lt;sup>1</sup> http://www.powershiftatlantic.com/overview.html

that leverages commercial and industrial organizations' existing energy consuming assets — and the inherent process storage they offer — to create an aggregated network of demand-side loads.

Process storage has similar operational characteristics to that of other storage technologies. The medium of process storage is dependent on the process being serviced by the load. Examples include: thermal energy associated with HVAC heating and cooling, and potential energy associated with pumping water to an elevated reservoir. Demand-side loads with process storage are able to charge by consuming more power when the grid has a surplus, and discharge by consuming less during periods when the grid has a deficit. Although loads cannot inject real power into the grid, from the perspective of the bulk electrical system a load reduction is equivalent to a power injection. Similar to other storage technologies, process storage has a state-of-charge, or a finite and measurable limit to how much time demand-side loads can be charged or discharged.

### V. CONCLUSION

ENBALA appreciates this opportunity to provide these comments and looks forward to work with the Commission and the parties of this proceeding in developing a framework for energy storage procurement targets.

July 3, 2013 in North Vancouver, BC

Respectfully submitted,

By: <u>/s/ Andy Gassner</u>

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