Edited Redline Version Maine Office of the Public Advocate and Conservation Law Foundation October 18, 2013



Distributed Generation Forecast Working Group (DGFWG) Proposed Scope of Work

Background

ISO New England (ISO) and its stakeholders anticipate growth of distributed generation (DG) resources in the near future. Estimating, and subsequent planning for, this growth may present uniquechallenges for grid operators (see ISO's <u>6/19 PAC presentation</u>) as well as benefits for system reliability and for ratepayers. To help the ISO estimate estimate the growth and <u>quantify the impacts</u> of DG resources on the regional power system, it-the ISO established the Distributed Generation Forecast Working Group. This scope of work outlines the responsibilities of the DGFWG.

The most common distributed generation resources include: solar photovoltaic (PV), small-scale wind, fuel cells, combined heat and power, and small hydro-electric power. Currently, PV represents the largest share of future DG resources throughout New England, and poses a number of unique challenges to system planning and system operations. Therefore, the ISO expects to focus a large part of its <u>initial</u> forecasting efforts on the impact of anticipated DG PV resources. The DGFWG will use the definition of "distributed generation" provided below.

Objective

In order to assist the ISO's development of a DG forecast, it established a stakeholder working group. A DG forecast will provide ISO planners and stakeholders with estimates of DG to be used in longrange planning. <u>ISO NE</u>, together with the working group, shall develop a reliable, transparent method to account for all of the available DG resources and their energy and capacity contributions to the New England electrical system. The working group will provide input on DG forecast assumptions, data inputs, model validation, and feedback on the model results. The working group will identify (and, where appropriate, quantify) the benefits and challenges that DG resources provide to numerous aspects of the regional bulk power system. Information developed shared through the DGFWG may also provide insight into howsome aspects of DG integration that may will impact current be useful for other planning and operational needs of the New England power system. An initial goal for the DGFWG is to develop an interim forecast that can be used in planning studies based on the 2014 Regional System Plan.

DGFWG Composition

This stakeholder group is open to all interested parties. Participation by state agency representatives with strong knowledge of both DG programs and sources of funding will be particularly valuable. Distribution companies, solar installers and other developers with experience in DG development and installation, renewable energy advocates, and DG program administrators will also play a key role in the DGFWG as they will provide DG resource data to the ISO and information on both interconnection requirements and technology performance characteristics. Information that the ISO uses to develop the DG Forecast will be shared with the DGFWG members, while protecting any

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confidential or customer specific information.

The ISO is seeking working group members with expertise in the following areas: ratepayer funded DG programs, technology trends and associated changes in production costs, installation and performance of DG resources, funding sources, and trends in prioritization of program implementation. Members will participate in a collaborative process to develop an annual forecast contribute to an annual forecast process, which may include both face-to-face meetings and teleconferences. During the forecast development process, members may be asked to take on specific tasks, including but not limited to, external research and analysis, presentation development and delivery. Information on the electrical characteristics and options for the proper modeling of DG will be discussed with the working group.

DGFWG Organization

The DGFWG is chaired by a representative of ISO New England, and will not be a formal NEPOOL committee or subcommittee. Periodically, the <u>activities of the</u> DGFWG will <u>be shared with provide-updates to</u> the Planning Advisory Committee and other committees as necessary. Meeting agendas and materials will be posted on the ISO website <u>three business days in and</u>-advance <u>of each meeting</u>. <u>Meetings will be scheduled at locations that are roughly central and that offer open access to all</u> <u>stakeholders</u>. <u>Meeting venues will have telephone conferencing and internet connectivity easily available for all stakeholders</u>.

The responsibility to produce the DG forecast rests with the ISO. The DGFWG will not be a voting body. The DGFWG will serve in an advisory role to the ISO, in accordance with the objectives stated above.

DG Definition

For purposes of the DGFWG, distributed generation resources are defined as those that are typically-5 MW or less in nameplate capacity and are interconnected to the distribution system (typically 69 kV or below) according to state-jurisdictional interconnection standards. These may include both those installations that are located behind a customer load (i.e., "behind-the-meter") and those that are interconnected directly to the distribution system without a customer load being present. Note that this definition of DG is more expansive then that in the ISO's Tariff. The Tariff definition is focused only on resources participating in the markets as Demand Resources, and the work of the DGFWG will focus on DG both in and outside of the markets. (http://www.iso-ne.com/regulatory/tariff/sect_1/sect_i.pdf).