

Date of Hearing: May 4, 2011

ASSEMBLY COMMITTEE ON UTILITIES AND COMMERCE

Steven Bradford, Chair

AB 1302 (Williams) – As Amended: April 27, 2011

SUBJECT: Electricity system distribution planning

SUMMARY: This bill requires the California Energy Commission (CEC) to develop guidelines for large investor owned and publicly owned utilities to use for creating maps and identifying optimal zones for distributed generation and requires those electric utilities to submit those maps to the CEC for review and approval. Additionally, the bill requires the maps to be made publicly available. Specifically, this bill:

- 1) Requires the CEC, in consultation with the Public Utilities Commission (PUC), to develop guidelines for creating maps which identify and designate zones for distributed generation.
- 2) Specifies information that must be included in the distributed generation maps.
- 3) Requires large utilities (investor owned and public) to submit distributed generation maps to the CEC, the PUC, and the California Independent System Operator no later than December, 31, 2012.
- 4) Requires the CEC to review and approve or disapprove the designation of optimal distributed generation zones identified by the utilities.
- 5) Requires utilities to make this information available on their websites and periodically update them.
- 6) Allows the CEC to assess a fee on a utility if a utility has failed to produce a map. The CEC would then produce the map for that utility and recoup reasonable costs.
- 7) Exempts small utilities (both investor owned and public) from these requirements.
- 8) Requires state agencies to give priority for the approval of distributed generation projects located within optimal distributed generation zones.

FISCAL EFFECT: Unknown

COMMENTS:

The author argues that the State must have an understanding of the optimal areas for distributed generation in California within areas served by investor owned utilities and public utilities.

Distributed generation (DG) refers to electric generation facilities that are located close to where the electricity will be consumed. Distributed generation can take the form of renewable power (such as solar or wind), fuel cells powered by natural gas or biogas. These projects do not usually require large amounts of land and most can be co-located on existing developed property (such as a parking lot or building roof).

Distributed generation systems connect to the electricity grid via the local transmission or distribution system (the developer and the utility enter into an 'interconnection agreement'). They can be constructed in a manner that allows all of the power to be sent to the electricity grid or constructed in a manner to first serve on-site electricity needs and send only excess electricity to the grid. Electricity that is sent to the grid is purchased by the local serving utility as a result of a contract between the utility and the project developer. The contract to sell power is known by a variety of names: standard contract, feed in tariff, wholesale power purchase agreement.

California has a number of initiatives underway to increase the use of distributed generation, including but not limited to:

- Governor Brown 12,000 MW Localized Energy Initiative
- Sacramento Municipal Utility District (SMUD) 100MW Feed in Tariff
- City of Los Angeles Feed in Tariff (pending)
- California Public Utilities Commission 1,000 MW Reverse Auction Mechanism
- Pacific Gas and Electric (PG&E) 500 MW Photovoltaic Procurement Program (for projects from 1 MW up to 20 MW; half utility owned, half private developers)
- Southern California Edison (SCE) 500 MW Photovoltaic Procurement Program (for projects between 1 and 2 MW; half utility owned, half private developers)
- San Diego Gas and Electric (SDG&E) 100 MW Photovoltaic Procurement Program (for projects between 1 and 5 MW; 26 MW utility owned, 76 MW private developers)

The CPUC has established the Renewable Distributed Energy Collaborative (Re-DEC) to address a number of challenges that have been identified by stakeholders, including utility system maps (Re-DEC brings together utility grid operators, renewable DG project developers, and renewable DG technology experts to better understand the challenges associated with interconnecting renewable energy at the distribution grid).

One of the major barriers to DG has been lack of data available on where DG can provide the most value to ratepayers and/or where DG can be most easily connected to the electricity grid. Mapping will provide this data. Investor owned utilities have presented information on maps that they are voluntarily developing to provide more information and data to renewable DG project developers. Some early versions of these maps are already available on utility websites.

As DG deployment accelerates utility maps will need to be regularly updated. As one area is developed it may no longer be optimal to develop DG projects in that area. In addition, utilities regularly perform maintenance and provide distribution system upgrades in response to changes in customer electricity needs. A DG project may be under review which is not yet indicated on the map. As a result, a map might inadvertently provide an indication to a developer that a designated optimal zone is pre-approved for their DG project.

The bill provides that state agencies shall give priority to approve DG projects. Not all DG projects will be approved by state agencies. Some DG projects may require approval by local governments through a construction-building permit or conditional use permit. In addition, interconnection agreements would be approved by either the distribution system owner (typically the owner of a distribution system is the utility within the service area) or the CAISO. The

process for reviewing and approving interconnection agreements are primarily governed by the Federal Energy Regulatory Commission (FERC).

Some terms in the current bill are not clearly defined, including: 'optimal' and 'zones.' PG&E points this lack of clarity out in their letter opposing AB 1302. The author may wish to consider an amendment to direct the CEC to define those terms.

PG&E points out in its letter that distribution systems are dynamic, i.e., [distribution] systems change, new devices are added, new loads are added; different types and sizes of DG are incorporated. In addition, they point out that DG technologies themselves are create unknown variables, such as whether they are mechanical or inverter based systems, how they potentially interact with each other and the existing electrical system. They note that the electric grid is an 'ever changing' system. Thus, PG&E is not certain that the maps will ultimately be useful.

The California Municipal Utilities Association expresses opposition to this bill because it would undermine the Public Utility's local governing board's authority because this bill asserts CEC jurisdiction and allows the CEC to review and approve their DG maps.

The author may wish to consider an amendment to clarify that a designated optimal zone on a utility system map is not a pre-approval for a DG facility.

REGISTERED SUPPORT / OPPOSITION:

Support

Pacific Power (if amended)

Opposition

California Municipal Utilities Association (CMUA)
Pacific Gas and Electric (PG&E)
Sacramento Municipal Utility District (SMUD)

Analysis Prepared by: Susan Kateley / U. & C. / (916) 319-2083