

California Department of Water Resources - State Water Project Comments on FERC Order 764 Market Design Protective Measures Straw Proposal

August 9, 2013

On August 2, 2013, the CAISO held a web conference to discuss CAISO's FERC Order 764 Market Design Protective Measures Straw Proposal, dated July 26, 2013. This proposal specifies the criteria that must be met by variable energy resources (VERs) to qualify for protective measures under the new market redesign set by Order 764.

DWR appreciates CAISO's efforts in recognizing the importance of giving some VERs more time to adjust to FERC Order 764 design changes. DWR supports the four criteria that must be met in order for VERs to receive "protective measures". In essence, the straw proposal supports a three year transition period for VERs to modernize their way out of the Participating Intermittent Resource Program (PIRP). VERs that do not qualify for the protective measures will have a much shorter transition period, a little over a year, to upgrade their equipment or find alternate methods to minimize their risks. DWR recognizes that some VERs will not be able to upgrade during this transition period and may need to retire or face the added risk without protection.

PIRP uplift cost is the difference between what CAISO actually spends to offset a VER's UIE (based on actual RTD prices) and PIRP settlement - what CAISO charges the VERs for their UIE (based on the weighted average RTD prices). PIRP settlement will continue to be paid only by VERs in PIRP. PIRP uplift costs will continue to be socialized among all scheduling coordinators (SCs) that contribute to net negative uninstructed deviations. These SCs may then allocate these costs to their respective generators and/or loads. Therefore, a VER in PIRP is subject to PIRP settlement charges as well as the socialized PIRP uplift charge. DWR supports this existing cost allocation methodology as long as there is a predetermined path to phasing out PIRP protective measures.

The criteria outlined in the straw proposal are based on discussions CAISO had with 24 VERs. In order to help identify and clarify options that all VERs will have under Order 764, DWR defines six (6) VER categories.

VERs falling into six (6) different categories:

- 1) **VERs currently in construction and therefore not in PIRP:** These are VERs that will most likely come online in the next two years. These VERs will not be

able to receive Order 764 protective measures because their technology will be newer than 2005. These type of VERs can be separated into two sub categories:

- Controllable output - Controllable output VERS currently under construction will fall into Category 2 below. These type of VERs will be able to take advantage of new Order 764 rules.
- Non-controllable output - Non-controllable output VERs still under construction will face consequences similar to Category 5 VERs below. They will be required to upgrade their equipment and/or acquire a firming service by the time Order 764 is implemented (Fall 2014). In order to minimize their UIE the VER will need a firming service. However in order to minimize their risk to negative energy prices, they need to upgrade their equipment, at a minimum, to go offline. Having a firming service alone, without a curtailable output, will not shield the VER from negative energy prices. These type of VERs (non controllable and under construction), along with Category 5 VERs, are probably the worst off under Order 764 because they have to update their control equipment and provide meteorological data in about a year in order to operate economically under the new rules.

- 2) **Existing VERs not in PIRP and can control their output:** These VERs are not in PIRP because they don't need the protection provided by PIRP. They currently can make more money participating in the real-time energy market as a "regular" generator. These VERs have no need to apply for the protective measures.
- 3) **Existing VERs not in PIRP and cannot control their output:** These VERs are most likely 20 MW or less (noted in the straw proposal as Qualifying Facilities – QFs) and are currently under contract with an IOU. Based on a December 2010 CPUC order ([D.10-12-035](#)), IOUs are required to purchase power from these QFs. This provided the QF "protection from adverse energy settlement in the ISO's market" by requiring the IOU to provide the overall controllable output. After the QF's contract with the IOU expires, it can apply to be in PIRP and therefore be eligible to receive protective measures. PIRP qualification will require the QFs to provide meteorological data. Regardless of when the QF qualifies for protective measures, the protective measures will expire at the beginning of October 2017 (assuming Order 764 is implemented by the beginning of October 2014). For example, if a VER's contract with an IOU expires in September 2016 and is able to qualify for protective measures by October 2016, it will only receive these protective measures for one year.

These type of VERs are in a slightly better situation than Category 1 non-controllable VERs because they will have more than one year to plan for their upgrade. During the term of the contract with the IOU (next 15 to 20 years), the VER knows it has to upgrade and can make plans to do so. Based on comments from VERs during the web conference, some expressed concerns of not having enough cash flow to be able to upgrade during this time. Also, most if not all of

these type of VER/IOU contracts do not allow the VER to search for new investors (that can finance the upgrade) until usually two years before the contract expires. Therefore, for all practical purposes, the VER won't have the money to upgrade their equipment until about two years before they need to comply with new Order 764 rules.

- 4) **Existing VERs in PIRP and can control their output:** These VERs have chosen to be in PIRP because it is easier for them and less risky to operate under this program than to participate as a "regular" generator. These VERs will be forced to operate as designed. They can take full advantage of Order 764 with minimal to no required equipment changes or upgrades.
- 5) **Existing VERs in PIRP, cannot control their output, and don't meet the minimum requirements:** These VERs were not designed to have controllable output because it was either cheaper to build them that way or the technology was not there. These VERs have a little more than a year (assuming Order 764 is implemented by October 2014) to upgrade their equipment in order to be able to control their output.
- 6) **Existing VERs in PIRP, cannot control their output, and meet the minimum requirements:** These VERs are probably the older type of VERs participating in the market and were not designed to have their output controlled. These VERs will require major equipment upgrades (i.e. turbine replacement). These VERs will have three years (starting from October 2014) to upgrade their equipment.

Based on CAISO's proposal, the 24 VERs that CAISO had discussions with seem to fall into Categories 3, 5 and 6.

For added clarification to Figure 1, page 5, DWR suggests identifying the characteristics for the Wind and Solar groups shown. Are they grouped by their MW output range, geographical location, or what other characteristic?

DWR looks forward to receiving further details in upcoming proposals and stakeholder meetings.