

# Stakeholder Comments Template

## Reactive Power Requirements and Financial Compensation

### Addendum to Draft Final Proposal

Submitted by	Company	Date Submitted
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EDF Renewable Energy, Inc. opposes CAISO's proposal to go beyond the FERC's requirements of Order No. 827 and require Asynchronous Generation (ASG) to install automatic voltage control (AVC) capabilities without a compensation mechanism. Further, several clarifications are needed to CAISO's AVC proposal.

CAISO's proposal would impose an additional cost on ASG with no means of cost recovery.

In June, CAISO told the FERC that the ASG's cost of the reactive capability supply is covered in power purchase agreements (PPAs) entered into with individuals purchasers and load serving entities (LSEs). CAISO has not addressed cost recovery for its proposed additional AVC requirement. We can only presume that CAISO intends for this additional capital cost to be recovered in PPAs as well. CAISO has not shown that LSEs will be willing to increase the price of power under PPAs to cover this additional equipment. Indeed, reactive capability and AVC benefit much more than a single LSE's specific customers. All load and customers in the local area benefit. CAISO has not demonstrated that the LSE and its customers are willing to subsidize others' use and benefit. In any event, without any demonstrated guaranteed means to recover the cost, the CAISO proposal is premature and should not be adopted. It is not just or reasonable to require ASG to bear the cost of more equipment than the FERC requires with no demonstrated means of cost recovery.

The FERC held a technical conference on June 30th, addressing compensation for ASG. The panelists at the conference confirmed that nearly all RTOs but CAISO provide some form of compensation for reactive capability supply equipment. The FERC is now considering the appropriate compensation method. One method discussed is the "AEP Methodology." That methodology has been in place for over a decade and is applied by PJM and MISO. That methodology compensates a generator based on its actual allocated costs to provide and maintain reactive capability supply.

CAISO should likewise adopt the AEP Methodology to recover the cost of an ASG's (and synchronous generator's (SG)) cost to provide and maintain reactive capability supply including any AVC component. First, the AEP Methodology is tried and true and easily adopted. Second, the methodology ensures that the generator will recover its costs. Third, even if the cost could somehow be bundled with, and embedded into, the cost for real power under a PPA, the customers of the LSE should not subsidize other's beneficial use of the CAISO grid. Reactive capability supply (including

any AVC requirement) supports the transmission grid, as the FERC has made very clear. Fourth, it will send the proper investment signal to generation developers. If there is choice between developing new generation in the CAISO or MISO market, with each having a PPA, and with MISO also providing for reactive capability supply on a separate cost-based basis (but CAISO providing nothing), the developer will build the new generation in the MISO market and not CAISO. This is not in the best interest of CAISO, its load and ratepayers and California state policy goals. Fifth, ASG, and wind generation in particular, can instantaneously respond to CAISO's reactive needs, more so than SG. This value should be recognized and appropriately compensated.

#### Clarification needed

Assuming CAISO provides for AVC compensation as discussed above, other clarifications to its proposed Tariff language are needed.

1. CAISO should make it clear in its Tariff that having AVC will not expand the reactive power band of +/-95% leading/lagging, nor impose any requirement to go beyond the 95% power factor leading and lagging. The addition of AVC does not equate to an ASG's ability to go beyond the 95% power factor.

2. It is axiomatic that a generator cannot provide both voltage control and power factor control at the same time. This is not technologically feasible and is established industry practice. This raises the question of why CAISO has listed both in its proposed Tariff language. We request that CAISO explain its position. At a minimum, the CAISO Tariff should specifically state that the ASG will not be obligated to provide voltage control and maintain a power factor range at the same time and that CAISO will provide clear product instructions.

#### Conclusion

EDF Renewable understands the desire for AVC. We urge CAISO to provide an opportunity to discuss the compensation need as part of its stakeholder discussions before any final determination is made and before any proposal is presented to the Board. We also request that the CAISO provide the clarifications discussed above.

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