

WESTERN ENERGY IMBALANCE MARKET

Energy Storage and Distributed Energy Resources Phase 2 (ESDER 2)

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Initiative includes a component within EIM Governing Body's primary decisional authority and components within its advisory role

ESDER Phase 2 proposal elements have different classifications:

Advisory

- Add new demand response performance evaluation methods
- Clarify station power treatment for storage resources

Primary decisional authority

- Incorporate additional gas indices into the Net Benefits Test calculation to reflect all real-time participation regions

New demand response (DR) customer load baseline methodologies were evaluated and proposed

- The ISO's current and only DR performance evaluation method does not accurately reflect the performance of certain types and configurations of DR
- ESDER 2 introduces new, well-vetted baseline methodologies that will better reflect the performance of various DR types in the ISO market
- In addition to the ISO's current baseline methodology, ESDER 2 adds Control Group, Weather Matching, and Day Matching performance evaluation methods

Proposal clarifies station power treatment for storage resources by distinguishing energy used to charge a storage device versus supply station power

Resolved through tariff and business practice manual changes including:

1. Simplify the station power definition to incorporate by reference the definitions applied by local regulatory authorities (LRA)
 - E.G., “retail energy for operating the electrical equipment of an energy resource, as defined by the LRA”
2. Include wholesale use examples in BPM such as:
 - Charging energy, resistive losses, blackstart energy, pumping load, synchronous condensers
3. During interconnection process, resources will affirm to the ISO that they comply with retail tariff requirements

The DR Net Benefits Test (NBT) calculation needs to reflect the expanded real-time market footprint

The NBT establishes a price threshold above which DR resource bids are deemed cost effective and paid the full locational marginal price without any offset

- A monthly analysis is performed, utilizing historical data from the previous year's supply curve, to identify the price threshold estimate that shows where customer net benefits occur
- An adjustment is made to the supply curve to reflect differences in resource availability and fuel prices between the target and reference month

The proposal removes tariff language specifying specific gas indices

Year	Month	PG&E Citygate	Southern California Citygate	Average Gas Price	Gas Scalar
2016	07	\$2.67	\$2.64	\$2.66	
2017	07	\$3.19	\$3.14	\$3.17	1.19

TABLE 2: GAS PRICES AND GAS SCALARS

- Two specific California gas price indices are used in the current NBT calculation to adjust the supply curve for fuel prices and are specifically listed in the tariff
- Proposal removes tariff language that lists specific gas indices and incorporate all relevant gas price indices used to derive the Net Benefits Test price threshold into the ISO's Business Practice Manual for Market Instruments

Management requests the EIM Governing Body approve the proposal to remove existing tariff language that ties specific gas price indices to the derivation of the Net Benefits Test price threshold

- Incorporation of regional gas price indices was supported or not commented on by stakeholders
 - Request to review additional indices as incorporated into calculation was made and can be accommodated in BPM proposed revision request process