Battery Index Standard

The proposed standards related to the Battery Index are a parallel index to that which applies to the Interstate pipelines and storage companies. It is intended to facilitate transparency and reliable information for planning, assessment and contracting purposes, there should be an index of battery facilities that are wholesale electric market participants (hereafter referred to as Battery-WEMPs).

To be effective, the index has to constructs. First an index of the location, owner/operator and facility’s physical attributes. Second would be a contractual index outlining the contractual attributes associated with the facility’s Facility Attributes of the B-WEMPs (set forth below).

The combination of such indexes would provide the ability to present pertinent contract performance attributes associated with Battery-WEMPs. Standardized attributes will promote contracting, of such attributes and facilitate development and associated financing of Battery WEMPs. [detailed benefits to follow and be provided through the record developed in the standards development process]

Examples of useful data elements setting forth Battery facility physical attributes are set forth below. Once fully vetted and determined, it will be a natural progression to identifying the contractual attributes that can be referred to, in whole or in part in contracts for service(s) from such Battery facilities. Note such contractual attributes should be kept in mind when developing the physical attributes, and would necessarily follow Facility Attribute determinations.

Facility Attribute sample data elements:

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| --- | --- | --- |
| Data Element Type | Related Data Element Component | Sample Definition/Description |
| Location | Location Name | A unique location name assigned by the Location owner |
| Location | State, County | Code or standardized text |
| Location | OASIS code |  |
| Location | ISO and Balancing Authority | Code(s) or standardized text |
| Location | Unique Facility Code | A unique code |
| Location Operator | Identity of Location Operator name | Entity responsible for operational coordination with ISO/Balancing Authority |
| Facility Entity Attributes | Contract Entity | Identity of Location Owner or Entity designated by Location Owner with which contracts are administered |
| Facility Attributes | Facility Storage Capacity | Total Energy in MWH which can be discharged and recharged and contractually committed to the Wholesale Electric Market (WEM) |
| Facility Attributes | Maximum Discharge Capacity | The Maximum MW of instantaneous discharge the Facility can output |
| Facility Attributes | Maximum Continuous Discharge Duration to Full Discharge | The maximum length of time in hours:minutes:seconds that the Facility can continuously discharge/output at Maximum Discharge level |
| Facility Attributes | Maximum Recharge Capacity | The Maximum MW of instantaneous recharge the Facility can absorb. |
| Facility Attributes | Minimum Continuous Recharge Duration to Full Recharge | The minimum length of time in continuous hours:minutes:seconds that the Facility requires in order to be fully recharged from fully discharged |
| Facility Attributes | Recharge Rate | The percentage of Maximum Recharge Capacity per hour divided by the Maximum Discharge Capacity per hour. This will enable the calculation of the time it takes to recharge an amount of storage capacity relative to the facility’s discharge capacity. For example it may take 2 hours to recharge 1 MWH of storage for each 1 hour of discharge capability. |
| Facility Attributes | MW Output Characteristics | Power quality of output |
| Facility Attributes | MW Input Characteristics | Required Power Quality of recharge power |
| Facility Attributes | [Future] Wholesale Services supported by Facility | List of services that the Facility can contract to provide/accept. Examples are voltage control, VAR management, other ancillary services, power sink to manage excess power on the ISO/Balancing Authority, and others that the standards development process identifies. |
| Facility Attributes | Full Cycle Count | Rated number of full Discharge/Recharge Cycles |
| Facility Attributes | Partial Cycle Count | To the extent applicable the Facility’s number of partial Discharge/Recharge Cycles if different from Full Cycle Count |
| Facility Attributes | Required Maintenance Interval | The minimum length of time in days between the Facility’s requited maintenance events. |
| Facility Attributes | Required Maintenance Duration | The maximum length of time in days of the Facility’s required maintenance events. |