

# ELCC Class Definitions and ELCC Floor Groupings

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*“ELCC Class shall mean a defined group of ELCC Resources that share a common set of operational characteristics and for which effective load carrying capability analysis, as set forth in RAA, Schedule 9.1, will establish a unique ELCC Class UCAP and corresponding ELCC Class Rating. **ELCC Classes shall be defined in the PJM Manuals. ELCC Classes shall be defined such that the members of each ELCC Class are reasonably homogeneous in character and with respect to impact on system resource adequacy.** ELCC Classes shall be defined for Limited Duration Resources of no less than four hours duration, and shall include 4-hour, 6-hour, 8-hour, and 10-hour duration characteristics, with matching duration classes for Combination Resources composed in part of one or more such ELCC Classes. Members of an ELCC Class shall share a common method of calculating the ELCC Resource Performance Adjustment, provided that the individual ELCC Resource Performance Adjustment values will generally differ among ELCC Resources.”*

## ***“Variable Resources***

- Onshore and offshore wind, solar, landfill gas, intermittent hydro, etc.

## ***Limited Duration Resources***

- 4, 6, 8, and 10-hour energy storage resources
- 4, 6, 8, and 10-hour generic limited duration resources
- Linear derating allowed for ESR and limited duration resources
- A resource cannot include in the inventory storage available to the ELCC model any MWh needed for other firm commitments such as black start. The MWh inventory needed for black start is  $(\text{BlackStartMW}) \times 16\text{hrs}$ .
- A resource must be in a given duration class for at least five delivery years.

## ***Combination Resources***

- Solar+4, 6, 8, and 10-hour ESR hybrids, other gen+4, 6, 8, and 10-hour ESR, hydro with storage, other co-located combinations of resource types that allow greater reliability than an individual resource.
- A resource cannot include in the inventory storage available to the ELCC model any MWh needed for other firm commitments such as black start.
- The MWh inventory needed for black start is  $(\text{BlackStartMW} - \text{IntermittentMW}) \times (16\text{hrs}) - \text{IntermittentMW} \times 3\text{hrs}$ , where IntermittentMW is an hourly value that represents a reasonably conservative estimate of incoming intermittent power in the 3 hours before and 16 hours during a Black Start event.
- A resource must be in a given duration class for at least five delivery years.”

- ELCC Class Ratings will be posted for all classes present in the resource mix forecast.
- Not all classes will be included all ELCC results postings (e.g., landfill gas + 10 hour storage might not be included if not in the resource mix forecast).
- In general, ELCC Class Ratings posted in December of each year to be applied in all auctions run the following year.
- In general, resources in new classes that have not yet been analyzed have an opportunity to communicate the possibility of an emerging class as part of the data submission deadline (*“no later than six months prior to an RPM Auction in which the ELCC Resource intends to submit a Sell Offer or otherwise commit to provide capacity”*).

## *RAA Schedule 9.1 section (J)(3)(e)*

- *“The ELCC Class Rating used to determine an Accredited UCAP shall not be below the applicable floor value. ELCC Classes shall be organized into groups for the purpose of sharing the risk that a final or preliminary ELCC Class Rating for a Delivery Year is lower than the corresponding ELCC Class Rating in any table of floor values for such Delivery Year”*
- *...*
- *“ELCC Class groups shall be defined in the PJM Manuals. The groups shall be defined in accordance with the following principles: (1) each group shall be composed of ELCC Classes that shall share relevant physical characteristics; and (2) each group is broad enough to include a significant fraction of the ELCC Portfolio UCAP, with consideration given to ELCC Classes that are expected to increase in deployment over the ten-year term of the effective load carrying capability analysis.”*

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