Explanation of posted files

assumed_resource_mix.xlsx: assumed resource mix for the year under study. Effective Nameplate and/or Installed Capacity are not provided for classes with no more than 3 owners due to data confidentiality reasons.

bins.xlsx: this Excel file includes 4 sheets. The pre-merging bins correspond to the output of using the Freedman Diaconis Estimator to create the temperature bins. The post-merging bins correspond to the output after PJM merged a few temperature bins to avoid having too small a sample size (in number of days) in some of the extreme bins. Each of the sheets include the upper bound and lower bound of each bin in load-weighted RTO-wide THI units as well as the days included in each bin. The Days column has all days in each bin since 1993-06-01 until 2023-05-31 (which are used to derive load scenarios). The Days_after_2012-06-01 column has all days in each bin since 2012-06-01 until 2023-05-31 (which are used to derive resource performance scenarios for variable and unlimited resources).

hourly_load_scenarios.xlsx: these are the per-unitized load scenarios used in the model (they are per-unitized on the 50/50 forecasted annual peak load). Hour 0 corresponds to June 1st at 0:00:00 AM. The columns contain the 390 load scenarios based on 30 delivery years of weather history (DY 1993 – DY 2022) and the 13 weather rotations (A-M).

hours_and_weight_for_performance_adjustment_calculation.xlsx: this file includes the timestamps as well as the weight of each timestamp for the calculation of the resource Performance Adjustment for ELCC Classes that have an ELCC Class Rating.

stats_performance_adjustment.xlsx*:* this file provides the minimum, the 25th percentile (25%), the median (50%), the 75th percentile (75%) and the maximum values for the Performance Adjustment in ELCC Classes that have an ELCC Class Rating and with a membership including more than 3 owners.

weekly_schedule_planned_and_maintenance_outages_by_load_scenario.xlsx: this file has the total quantity in MW of planned and maintenance outages for each week in each of the 390 load scenarios (the columns are named after the load scenarios). Week 0 corresponds to the first week of June in a delivery year.

info_for_loss_of_load_hours.xlsx: this file has all the hours with loss of load identified by the model. The columns in the file are:

- HourBeginningInYear: self-explanatory
- Year: this refers to the weather year (weather year 0 starts in June 1st, 1993 and ends in May 31st, 1994)
- Weights: probability of occurrence of the event
- Rotation: weather rotation (value can go from 0 to 12)
- Replication: resource performance draw (value can go from 0 to 99)
- Date: date of the identified loss of load hour in the simulation
- DayOfDeliveryYear: day number in delivery year (value goes from 0 to 364)

- HourBeginning: hour beginning of the loss of load event
- Load: load in hour
- LoadRelativetoSolvedLoad: ratio of load in hour to solved simulated annual peak load
- TotalUnlimitedOutput: total output of resources in the Unlimited Resources ELCC Classes
- TotalVariableOutput: total output of resources in the Variable Resources ELCC Classes
- TotalLimitedDurationAndCombinationOutput: total output of resources in the Limited Duration and Combination Resources ELCC Classes
- DROutput: total output of resources in the Demand Resources ELCC Class
- Margin: load minus total resource output from all ELCC Classes
- LOLEFlag: 1 if there is a loss of load event (i.e. Margin is less than 0)
- PlannedOutagesMW: amount of Planned and Maintenance Outages of Unlimited Resources scheduled in hour
- Bin: temperature bin employed to sample performance for Unlimited and Variable Resources for the hour
- ActualPerfDay: actual historical performance date used to sample performance for Unlimited and Variable Resources for the hour
- ActualTimeStampPerfDay: actual historical performance timestamp used to sample performance for Unlimited and Variable Resources for the hour

unlimited_classes_hourly_time_series_ambient_derate.xlsx: these are the ambient derate rates (from 0 to 1) for the Unlimited Resources Classes for which an ELCC Class Rating is calculated and that include 4 or more market participants. The time series starts on June 1st, 2012 and ends on June 1st , 2023. A value in this file should be interpreted as the share of the total ICAP in the ELCC Class that is undergoing an ambient derate in the corresponding hour.

unlimited_classes_hourly_time_series_forced_outage.xlsx: these are the forced outage rates (from 0 to 1) for the Unlimited Resources Classes for which an ELCC Class Rating is calculated and that include 4 or more market participants. The time series starts on June 1st, 2012 and ends on June 1st , 2023. A value in this file should be interpreted as the share of the total ICAP in the ELCC Class that is undergoing a forced outage in the corresponding hour.

variable_classes_hourly_time_series.xlsx: these values (from 0 to 1) correspond to the share of total Effective Nameplate Capacity in each Variable Resources Class (only for Variable Resources ELCC Classes for which an ELCC Class Rating is calculated and that include 4 or more market participants) assumed to be output in the corresponding hour. The time series starts on June 1st, 2012 and ends on June 1st , 2023.