Energy Exemplar

Simulation-ready North America Datasets for PLEXOS and Aurora
Plug-n-Play Data for Trusted Decision-Making Insights

YOUR MODELS ARE ONLY AS GOOD AS YOUR DATA

Energy Exemplar has invested in creating simulation-ready datasets from public sources so that you can immediately start modeling with confidence.

- *Publicly sourced*
- *Thoroughly documented*
- *Extensively tested and calibrated within the market*
- *Continuously updated*

FASTER START-UP

Dozens of datasets from all corners of the world offer a fast-start for users beginning their modeling journey. Subscribing to Energy Exemplar datasets makes it easy to overlay and maintain proprietary updates.

- *Consistent annual updates*
- *Integrated zonal datasets*
- *Planning and commercial nodal datasets*
- *Visual mapping, load-building and integrated 3D output*

CUT INTERNAL COSTS

Investing in research as well as collecting and transforming data can take a team of people the majority of a year. Energy Exemplar's dedicated data team stays current with the updates of market data, current market assumptions and emerging data sources.

- *Updated when each new public data stream is published*
- *Benchmarked to historic market data to demonstrate the quality of the data*

MAKE INFORMED, RELIABLE DECISIONS

These datasets incorporate the latest industry data from ISOs/TSOs, regional entities and governmental agencies. Both nodal and zonal data is available using the latest information across all interconnects.
It's the ideal tool for:

- *20+ year forecasts*
- *Analysis of all zones and regions*
- *Asset valuation*
- *Market analysis (including energy and capacity)*
- *Congestion and risk analysis*
- *Comprehensive resource and constraint modeling mapped to all interconnected zones*

Real Time

Day Ahead

AVAILABLE FOR BOTH PLEXOS & AURORA

North America

- *Zonal: North America, WECC, ERCOT, EIC*
- *Nodal: WECC, ERCOT, EIC*
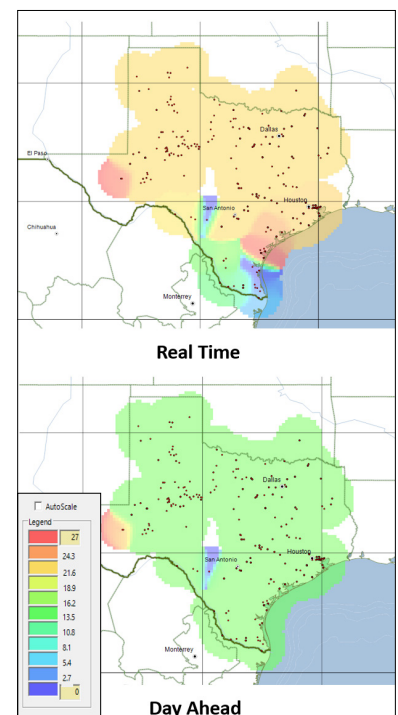
DATASET DETAILS – NORTH AMERICA

Inclusions:

- *30-year price forecast for 178 areas*
- *Over 24,000 generators with unique operating characteristics*
- *Model-driven resource expansion plan*
- *38 natural gas hub forecasts with prime over, size and vintage differentiation for plants across the US and Canada*
- *Plant-specific coal forecasts*
- *Up-to-date demand forecasts using the latest ISO and other available data*
- *Solar rating factors for fixed and tracking axis technologies*

- *Unique hourly wind shapes for 95 wind regions with three unique wind classifications for each configuration*
- *A detailed set of release notes with each new version of the database*
- *Mappings of generators to those within other major reports (CELT, Gold Book, CDR, WECC ADS, etc.)*
- *Detailed monthly hydro shapes with those in the Northwest derived from 80 years of hydro data using the latest Biological Opinion*
- *Emissions modeling of CO_2, NOx, SOx and HG using the latest existing and expected environmental programs*

SOURCES

- *Power plants are derived using EIA, EPA, ISO and independent research*
- *Fuel forecasts from ENERFAX, Annual Energy Outlook and Short-Term Energy Outlook by the EIA*
- *New generator characteristics derived from EIA Table 8.2 and expanded upon through Energy Exemplar analysis*
- *Transmission links are nodally informed and enhanced using the latest regional reports from WECC, ISOs and other entities*
- *Hourly demand shapes for each area from using actual data and historical analysis*
- *Solar rating factors were derived from the NREL System Advisor Model (SAM v2016.3.14)*
- *Hourly wind rating factors were derived from NREL's Wind Integration National Dataset (WIND) Toolkit*
- *ISO, EIA, EPA, NERC and FERC data and reports where appropriate*

FOR NODAL DATASETS

- Power flow cases from WECC, ERCOT and MMWG for Eastern Interconnect

NODAL AND ZONAL DATASETS PROVIDED FOR (INDIVIDUALLY)

- WECC
- ERCOT
- Eastern Interconnect

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