

PRODUCT ANNOUNCEMENT

25-year electricity and fuel price forecast

Power Reference Cases, fall 2019



ABB Energy Portfolio Management Advisors are pleased to announce the latest release of the Hawaii, ERCOT, Midwest, Northeast, Southeast, WECC, Mexico and European Power Reference Cases. The results files for the fall 2019 Power Reference Cases are now available.

Hawaii Power Reference Case

The Hawaii Power Reference Case is a fundamental analysis of the Hawaii electric market and considers current and projected new resources for the Hawaii electric industries utilities, fuel prices, operations, and hourly loads. Recent renewable projects include those approved by the Hawaii Public Utilities Commission and those sought in the latest renewable procurement. It includes a fundamentals-based forecast of market clearing prices, which are comprised of hourly, monthly and annual prices for the 25-year study period. The Hawaii Reference Case includes a Base Case, a High Fuel price scenario, and a Low Fuel price scenario.

ABB has updated their summer 2019 release of the Hawaii electricity market and will produce it twice a year, concurrent with the North American Power Reference Case, going forward. It is developed using the PROMOD electric market simulation tool, Velocity Suite data and ABB's fuel price forecast.

North American Power Reference Cases

The ABB [North American Power Reference Case](#) is a 25-year assessment of North American power, fuels and environmental markets. ABB examines supply and demand fundamentals in each of these markets to produce an integrated, internally consistent forecast of hourly, monthly, and annual wholesale electricity prices; annual capacity prices; monthly and annual coal and natural gas prices; and annual emission allowance and renewable energy credit prices.

In the power sector, ABB simulates economic capacity expansion and retirements subject to regularly updated appraisals of load growth and reserve margin requirements, new generating technology costs and characteristics, renewable and environmental policy mandates, and zonal transmission constraints.

Watch the webinar: An integrated view of the energy sector, North America, fall 2019.

The Power Reference Case includes a Base Case, a “Carbon Tax” scenario, a High Gas price scenario, and a Low Gas price scenario. ABB’s methodology for developing the High and Low Gas price scenarios has changed based on client feedback and is described below.

Low and High Gas price scenarios

ABB’s methodology for the Low Gas and High Gas price scenarios isolates the impact of supply expectations on natural gas prices by holding other natural gas and power assumptions constant. The Low Gas price scenario is intended to reflect pricing that could be sustained over the short-term. Over the long-term, significant technological improvements would be required to sustain the price trajectory in this scenario. ABB assumes that the long-run marginal production costs for shale plays are increased to at least the 75th percentile in the High Gas price scenario which creates a geographically diversified gas price scenario.

European Power Reference Cases

ABB’s [Power Reference Cases for Europe](#) consist of detailed country-by-country analysis projecting electricity market outlook for the next 25 years. These Reference Cases address key issues affecting the European energy markets both today and in the future. It is based on fundamental analysis examining the interactions between electricity demand and supply (i.e., thermal and renewable additions/ retirements), fuel prices, carbon prices and cross border flows across different European markets. ABB applies our tried-and-tested market simulation methodology (for investment planning and market operation), capturing the major policy and regulatory developments affecting the European power markets.

Our European Reference Cases are produced through simultaneous modeling of the integrated topology of ENTSO-E countries. Market scenarios include provision of three future scenarios: Base Case, Low Gas and High Gas price.

Key deliverables for the European Power Reference Cases include:

- Base, peak and off-peak electricity prices (annual and monthly averages)
- Fuel (coal, natural gas and oil) and CO₂ price projections
- Demand, capacity and generation mix projections by fuel type
- Wind and solar capture prices (annual)
- Renewables curtailment by technology
- Expected number of zero and low price periods
- Base, peak and off-peak clean spark spreads (annual and monthly averages)

More information

[Visit our website](#) for global market insight, tools, events, blogs and presentations.

If you have questions about the reports, events or pricing, or to order a Power Reference Case, contact ABB by phone at +1-800-868-0497 or by email at info.pges@abb.com.