

## Product Overview

# Horizons Interactive



A fast, easy-to-use service that allows you to create custom scenarios of North American energy markets from your desktop

Analysts in the power sector today must perform more market evaluations and asset valuations in less time. Horizons Interactive provides an easy-to-learn and fast-to-implement solution to fulfill these needs. Horizons Interactive is a thin-client service containing a range of applications available on demand. This approach is for organizations that desire to use analytics from established Ventyx cases, seek rapid turn-around time and/or require smaller forecast staffing levels.

### Horizons Applications

Users can perform a wide variety of analytics with this tool including:

- Zonal power price forecasting
- Generating asset valuation
- Stochastic valuations
- Regional natural gas and coal price forecasts
- Environmental compliance impacts

### Horizons Analysis Modules

Horizons Interactive analyzes markets in minutes per simulation year across a series of integrated modules. Standard modules include Strategy and Power Markets, while Valuation, Integrated Markets, and World LNG are additional optional modules.

**Base Module:** This module is used to evaluate long range power market and asset valuation strategies. Forecast results include power prices for up to 70 price points, production statistics, fuel burn, emissions, market-based revenues, operating costs, operating margins and reserve margins,. Users can evaluate assets of regions, holding companies, individual generators, and custom portfolios.

**Valuation Module:** This module provides a range of values for user-selected assets capturing uncertainty. Users can select from 5 to 50 stochastic simulations that vary power price, fuel price, load, reserve margin, resource mix, emission price, unit availability, and hydro output to measure the stochastic impacts on revenues, operating costs, operating margins, and other metrics.

**Integrated Markets Module:** This module simultaneously solves energy, capacity, economic builds, retirements/retrofit, natural gas, coal and CO2 Cap and Trade markets. Natural gas and coal prices suppliers and transport are determined based upon the fuel burn of those fuels in the power sector. Power sector demand for gas and coal, in turn, drives the price of each fuel.

Users have the choice of running each fuel as a stand-alone module or Power, Coal and Gas as a combined module. CO2 Cap and Trade permits the dynamic determination of CO2 price under a given assumptions for all economy CO2 emitted, ability to obtain offsets and non-power CO2 reduction and retirement/retrofit/low emissions generation from the power sector. This multi-market analytic permits the evaluation of complex interactions such as the impact of CO2 price on forecasted resource mix and natural gas price.

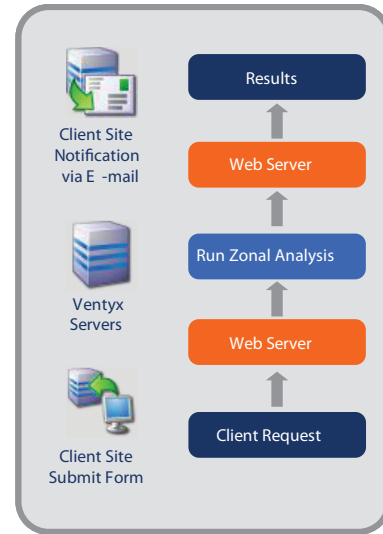
**World LNG Module:** This module solves for worldwide liquefied natural gas production and delivery based on demand-driven price signals, tanker sizes and routes, and liquefaction and regasification costs. Users have the choice of running the World LNG as a stand-alone module or with various components of the Integrated Markets Module.

### Horizons Scenarios

Horizons Interactive allows users to easily combine changes to input assumptions and develop custom, sophisticated 'what-if' analyses. Custom changes are made available for a wide variety of inputs including fuel prices, power demand, transmission limits, renewable builds, conventional expansion alternatives, emission prices, and unit characteristics.

### Horizons Process

Users download a thin-client application to their local PC, which permits changes to a wide range of inputs to create custom scenarios for analysis. These inputs are then submitted to Ventyx application servers, which maintain the data, perform the simulations, and return the results.



### Horizons Results and Visualization Tools

Each analytic module contains a set of visualization tools. Results may be viewed, graphed, and exported. In addition, a series of graphical tools are available that let users compare historical and forecasted information in forms that permit faster identification of trends and present the "big picture." Visualization tools include supply stack, reserve margin, fuel burn, risk profiles, power flows, and market prices.



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