



# Market and Asset Economic Simulations

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LMP, Congestion, Market Efficiency, FERC 1000

Basis Risk, Curtailments, Asset Valuation, Portfolio Optimization, Benefit-Cost Analysis

The shifting economics of generation technologies and fuels and the intermittency of renewable resources have a profound impact on the locational energy prices and the required quantities and resulting prices of ancillary services.

Asset developers, investors, and operators seek certainty on the future revenue streams. The competitiveness of their asset is constantly changing due to new assets in the interconnection queues and the transmission development in the region.

Quanta Technology has the expertise necessary to assist regulated and unregulated electric utilities, RTOs, ISOs, financial institutions and investors to perform Market Power simulations to evaluate and justify transmission and generation expansion projects, asset valuation of existing and new transmission and generation assets, plant siting, and power transaction valuation. We use a variety of economic planning tools (e.g., GridView, PROMOD, GE-Maps) to perform these studies.

Our team has performed a wide variety of projects in both LMP-based and bi-lateral market environments. We have the experience to assess market prices for changes to the system, analyze congestion for possible remediation, perform asset valuation, provide FTR valuation, and to help clients design processes and procedures that open, transparent and appropriately assess societal benefit.

## Service Offerings

### Market Economic Studies

- Production Costing
- LMP Analysis
- Congestion
- Sub-hourly Simulations
- Ancillary Service Price Analysis
- Integrated Resource Planning
- Energy Storage Roadmaps

### Asset Economic Studies

- Basis Risk
- Curtailment
- Dispatch Optimization
- Retirement Studies
- Asset Valuation
- Portfolio Optimization
- RFP Evaluation
- Pro Forma Financial Analysis



### Economic Studies:

- Production Costing
- LMP Analysis
- Congestion and Curtailments
- Sub-hourly Simulations
- Ancillary Service Price Analysis
- Asset Valuation
- Portfolio Optimization
- Integrated Resource Planning
- Energy Storage Roadmaps

### Why Quanta Technology?

Quanta Technology is a trusted transmission consultant with deep regional knowledge and experience in the analysis of system economics and understanding of mitigating solutions.

### Robust Solutions

Quanta use the applicable industry leading software tools that are adopted by each region. In addition, Quanta built powerful productivity tools to help process and design optimal solutions efficiently.

### About Quanta Technology

Quanta Technology is an independent technology, consulting, and testing company providing business and technical expertise, along with advanced methodologies and processes, to utilities and others in the power and energy industries. Our mission is to provide unparalleled value to our clients in every engagement across the value chain by using advanced software and hardware, laboratories, and custom tools for a holistic approach to practical service and the most insightful thought leadership in the industry.

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## Smart Solutions Practical Results

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