



## Supporting Power & Renewables Lenders

Lenders leverage ESAI Power's market data and insights to assist in their most critical power & renewables asset and portfolio lending decisions. Our objective capacity & energy forecasts help assess risk on new potential investments, valuation of existing debt-book, re-financings and forecasting risk across their entire power and renewables debt portfolio.

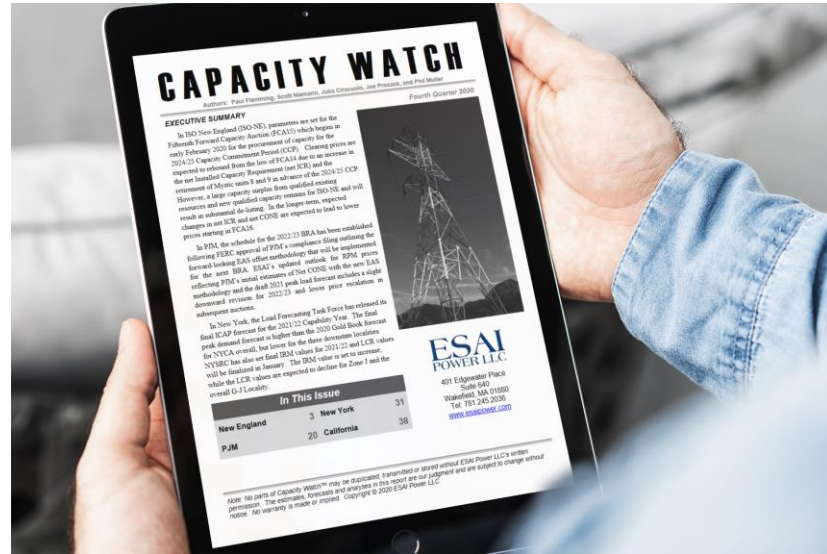
# Capacity, RECs, Carbon & Power Price Forecasts

ESAI Power provides an unbiased, informed fundamental view to support lenders investment decisions on new loans, re-financing their existing debt-book, and assess risk across their power and renewables portfolio. ESAI is well known on the buy-side of M&A transactions because our long-term forecasts are published to a large subscriber base of investors, generation owners, utilities and regulators.

## Objective Analysis for Lenders

ESAI provides objective analysis based on sound fundamental modeling. Our deep understanding of market rule changes and how regulations impact market outcomes in PJM, NYISO, ISO-NE & MISO, ESAI's reports include price forecasts for Power, Capacity, RECs, NatGas & Carbon.

ESAI's forecasts support lenders to conduct valuation reviews, forecast by RTO or at plant level, conduct risk assessment on existing debt or new loans. ESAI is known for publishing 'the unvarnished truth' in our long-term forecasts. Our **Generation Asset Monitor** provides granular plant-by-plant on generation under development and plants at-risk of retirement.



## Power and Renewables Lenders leverage ESAI's Power market insights to:

- Inform new investment decisions.
- Validate Asset Valuations & Revenue Projections across your debt book.
- Stay updated on environmental regulations and the impact on long-term plant revenues.
- Assess how market rule changes will impact gross revenues over time.
- Conduct effective energy asset analysis.
- Test internal models compared to ESAI's industry-standard Capacity, Power, RECs and Carbon price forecast benchmarks.

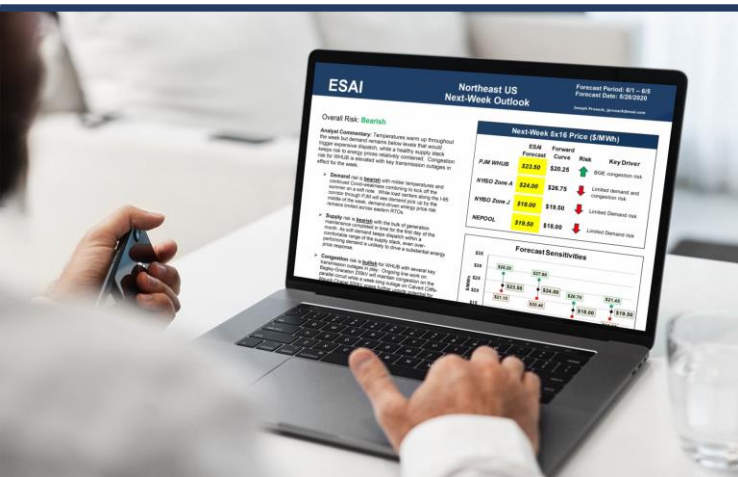
## Transactable Energy Asset Analysis

Long-term energy capital investments & management needs accurate information to make sound decisions. ESAI Power's price forecasts reflect known & expected changes in market rules and operating conditions. Our scenario & sensitivities analysis allow investors to dig into our base case market assumptions to understand on a deep, granular level how a potential retirement or market rule change may relate to future price changes and relative shifts in market conditions.

ESAI's Power's Capacity, RECs, NatGas & Carbon market reports keep lenders informed of market developments such as renewable generator additions and upcoming retirements, interconnection queue challenges, changes in load growth projections, and how market rules & regulatory changes impact prices over the next decade.

With access to a comprehensive overview of markets through price forecasts, market data, market reports and access to senior experts, lenders have a full suite of tools to support new energy asset valuation & management of your existing debt book.

# Products & Services



## Energy & Emissions Markets

ESAI offers comprehensive views on the PJM, New York, and New England energy markets.

Our power, natural gas, and emissions market forecasts includes zonal LMP forecasting developed using dispatch modeling based on current and projected transmission topology and detailed natural gas pricing projections at specific regional gas delivery points.

In **Energy Watch™**, ESAI delivers ten-year zonal energy price forecasts for most zones in the Northeast power pools.

**Emissions Watch™** closely follows carbon market developments at the federal, regional and state levels that impact the emissions markets. At the federal level, ESAI Power reports on changes to existing regulations (i.e., Mercury & Air Toxics, NAAQS and CSAPR Groups 2 & 3 market rules) as well as analyzing the potential impacts of new and proposed regulations. In addition, ESAI provides price projections for SO<sub>2</sub> and NO<sub>x</sub> (annual and seasonal) allowances.

At the regional level, ESAI Power provides coverage of the Regional Greenhouse Gas Initiative (RGGI). Specifically, a 10-year allowance price forecast and CO<sub>2</sub> emissions projections.

## Capacity & Renewables Markets

Capacity markets are a source of significant revenues for generation assets. **Capacity Watch™** provides quarterly analysis and insights and capacity market forecasts for every capacity area across ISO-NE, NYISO, PJM, & MISO.

Reduce risk, protect your investments and capitalize on changing supply and demand conditions by tracking key market indicators, auction rule changes, and regulatory updates. ESAI's Generation Asset Monitor (GAM) database is published monthly and provides updates on new generation, retirements and those power assets at risk of retirement.

Capacity coverage includes updates to demand curve parameters, changes in peak load, new generation, retirements, shifts in regional transmission impacting capacity areas, and evolving market rules.

Renewables coverage includes solar, onshore & offshore wind, hydro, and storage. For each RTO, ESAI details the regulatory and market factors impacting supply and demand for Class I RECs and projects the supply and demand balance of RECs through 2032. ESAI provides a Class I REC price forecast for the ISO-NE and PJM footprints and closely monitors renewable energy supply and demand developments in NYISO. ESAI's market experts are always available to clients' providing insights into our market data and reports.

## Market Forecasts for Infrastructure Assets

ESAI Power's team of experts has vast experience in advising lenders on custom forecasts of a portfolio of infrastructure power assets/debt investments. A typical debt portfolio market forecast would include:

- Asset/portfolio market forecasts and gross margin projections.
- Quarterly updates on base case market assumptions
- Regulatory and Environmental market rule updates.
- Plant specific, locational base case forecasts for each hub including delivered natural gas prices.
- Nodal LMPs at each relevant hub, zone and node (on-peak, off-peak, and 7X24)
- Realized power prices, Unit output and Capacity Factor, Fuel consumption & costs, Environmental allowance costs, VOM, Energy gross margin, Capacity Prices & Revenues.

# How we help Power & Renewables Lenders

## Unbiased Partner for Lenders

ESAI Power's market data and insights are used by lenders to support their most critical investment decisions. ESAI is known on the buy-side because we publish to a large subscriber base of market participants - we always deliver unbiased, objective capacity & energy forecasts to subscribers. To maintain integrity, we don't publish hockey stick revenue forecasts to appease seller's requests.

Market forecasts, asset valuations & revenue projections are backed by transparent assumptions and are delivered in ESAI's market reports or in spreadsheet form for ease of use. Market conditions constantly change & that means risk and upside are always on the horizon for lenders.

ESAI Power's market forecasts are based on the most reasonable expectations of future outcomes, and market projections and commentaries include assessments of the range of risk outcomes.

## Validate Asset Valuation Projections

Power sector lenders leverage ESAI Power's analytics to support asset valuations, revenue & gross margin projections, debt financing, and refinancing of power and renewable energy assets.

Mitigate risks & optimize revenues when evaluating new investments. With market rules, regulatory insights, interconnection queue and retirement analysis, and price forecasts over the next decade.

With a clear perspective on projected market developments, debt investments and refinancing processes can be evaluated based upon market forecasts in light of an understanding of the market & regulatory risks.

ESAI's team will keep you informed of the policy developments at the state, regional and federal level that impact asset valuations and will update you on early developments in the various ISO/RTO committees.

## Contact Us

For more information, please call Tom Bausemer at (781) 460-1227 or email [esaipower@esai.com](mailto:esaipower@esai.com)



## About ESAI Power

ESAI Power is a market research and consulting firm that delivers focused analysis of the wholesale power markets in the Northeast region of the U.S.: PJM, NYISO, and ISO-NE. Since 2001, ESAI has provided market-focused research product content and custom consulting services for Northeast power market participants, including investors (banks, private-equity, & hedge funds) & developers, generation owners & operators, utilities, regulatory bodies, traders, and end-users & buyers.

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