

Optimization for energy & utilities

Powering Decisions Across the Energy Lifecycle



Digital transformation in the energy industry is changing project economics and opening up new opportunities to deliver more value to customers. Optimization rapidly identifies the best choices among millions of possibilities, from selecting wind turbine locations and refinery schedules, to money-saving tips for consumers and businesses on the best time to discharge solar batteries.

This can help you reduce downtime, increase margins and return on assets, and free up capital for investment.

As part of this digital transformation, optimization solutions are accelerating the already strong trend toward wider use of optimization across energy operations. Putting the power of decision science in the hands of more business users, we make it easy for nontechnical stakeholders to understand and act on analytic insights based on massive amounts of data received from IoT sensors, machines, and mobile worker devices.

We help you see clearly through complex nested processes and across supply chains to spot cost-saving opportunities, risks needing proactive attention, and opportunities for performance improvement. FICO's optimization solutions also reduce the time and money to develop and deploy analytics-driven applications by up to 80%.



FICO® Optimization Solutions for Energy & Utilities has helped businesses:

- Deploy optimization solutions 80% faster than before
- Find good solutions faster than ever, and solve harder problems than previously possible
- Quickly turn business requirements into user-facing business solutions
- Rapidly evolve solutions over time for changing business requirements — with reduced dependence on IT
- Supercharge your other core and analytics solutions — no need to “rip and replace” to accelerate business
- Embed your unique requirements in the solution — not what a software vendor decided

Planning and Scheduling

- Demand and load forecasting
- Capacity expansion planning
- Financial asset optimization and risk management
- Rapid design/deploy of analytics-driven digital applications

Logistics and Supply Chain Optimization

- Scheduling optimization
- Transmission and component transfer analyses
- Spend and supplier mix analyses

Production Management

- Predictive maintenance
- Equipment diagnostics

Distribution

- Transmission and capacity analysis
- Pricing optimization
- Distribution scheduling
- Routing optimization
- Network expansion
- Maintenance scheduling

Extraction

- Extraction optimization
- Storage management
- Outage management
- Regulatory environment
- Maintenance scheduling

Refinement

- Real-time monitoring
- Intervention scheduling
- Outage detection
- Peak demand smoothing
- Blending optimization
- Plant stability & profit

Local Delivery

- Minimize distribution costs
- Storage management
- Operations maintenance

Consumption

- Route scheduling
- Marketing campaigns
- Consumer pricing
- Collection strategy





Client

Shell

Challenge

Automate control of complex large-scale industrial operations while ensuring efficiency, reliability, sustainability, and safety.

Solution

FICO® Xpress Optimization Suite

Results

Using FICO® Xpress Optimization, Shell and Yokogawa developed the Platform for Advanced Control and Estimation (PACE), which empowered Shell to solve complex problems across diverse asset types (such as liquefied natural gas, gas to liquids, chemical, oil products, and upstream), resulting in optimal control and increased reliability.



Artelys

Client

Artelys

Challenge

Develop a market-clearing algorithm to select the optimal set of bids available on the platform to cover the electricity replacement reserve needs of the nine European Transmission System Operators (TSOs).

Solution

FICO® Xpress Optimization

Results

Using FICO® Xpress Optimization for energy, Artelys ensures the balancing of power systems and security of supply at an efficient cost for more than 300 million Europeans.





Client

Uniper

Challenge

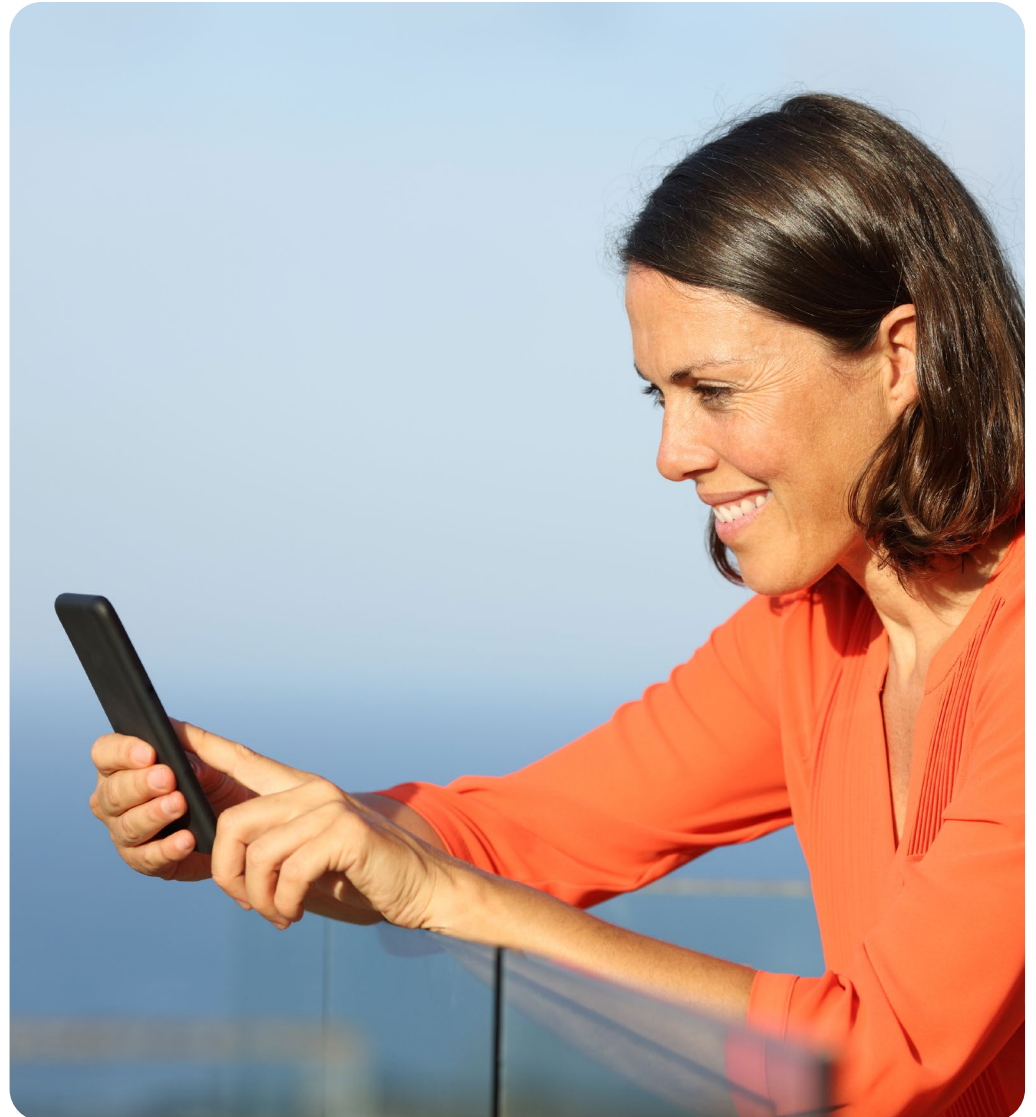
Uniper sought to add advanced cloud-computing technologies and other optimization solutions to its already industry-leading commercial expertise, allowing standardization of software across enterprise and improving performance on a greater scale.

Solution

FICO® Xpress Optimization

Results

With cloud infrastructure, Uniper can now run more complex models faster, deliver results in record time, and enable new business opportunities across all its energy markets.





Client

AGL

Challenge

AGL sought to modernize its collection communication strategy, delivering personalized, digital-first experiences to better support customers during financial challenges and crises such as COVID-19 and natural disasters.

Solution

FICO® Customer Communication Services

Results

AGL boosted payments by 29%, increased annual collections by AUD\$19M, and enhanced customer satisfaction with personalized messages.



Learn more about how FICO® Platform can help you solve your toughest energy challenges.

Learn more

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