

FAST for Transmission

Flexible Automation Simulation Toolset

AI-Ready Intelligent Planning for Transmission

Large load growth, electrification, inverter-based resources, extreme weather, and aging infrastructure are straining the tools and workflows utilities rely on to plan and operate the grid, leaving engineers under-equipped to evaluate more scenarios, make defensible capital decisions, and maintain reliability under growing pressure.

The Solution



Identify Millions in Potential Savings

FAST helps utilities meet the surging demand for interconnection as well as FERC-mandated study volume and complexity. EPE's FAST is a cloud-based intelligence and acceleration layer for transmission planning, including steady state, stability and economic assessments.



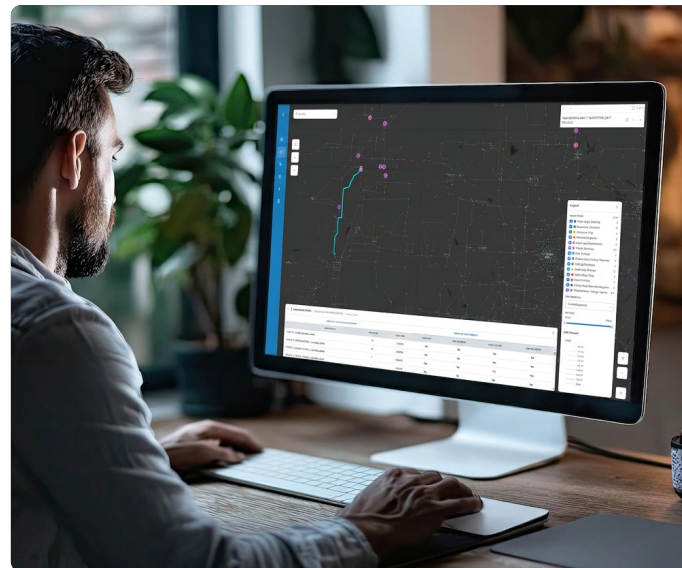
5-10X Faster Planning Cycles

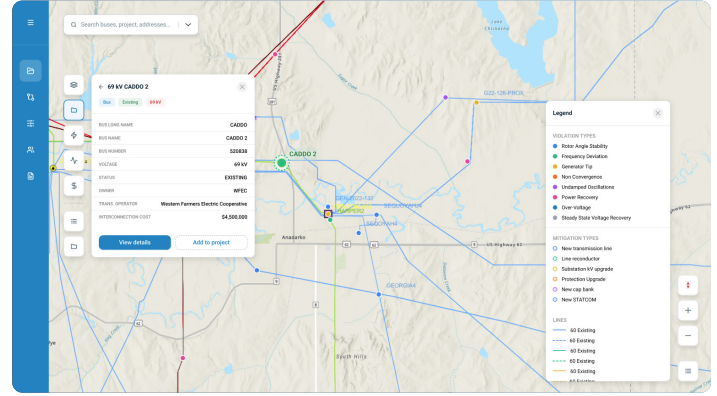
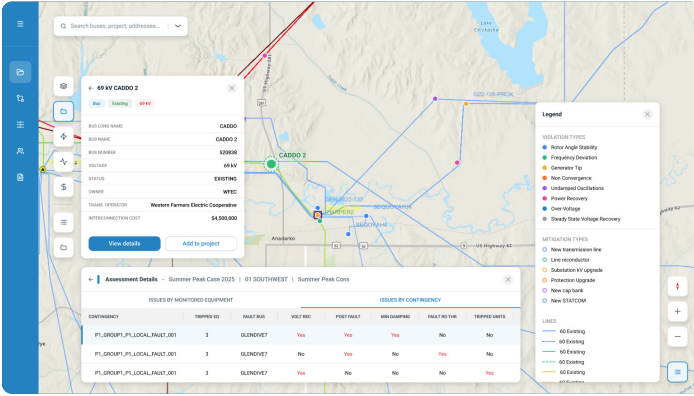
It brings speed through automation of data loading, facility validation, case preparation, and simulations; enabling your planning team to run more studies, evaluate additional scenarios, and make better capital decisions with the resources you already have.



Spend More Time Doing Engineering Work

FAST extends your existing trusted planning tools, shares models and workflows across teams, flags system violations, and supports mitigation development using repeatable, auditable processes that keep subject matter experts in the loop.













Turn Simulation Results into Actionable Analytics with Elevated Visualizations

FAST Transmission Feature Details

Capability	What it Does	Key Benefits
Facility Assessment	EPE experts work with your team to build and configure automated pipelines that review facility equipment data, run comprehensive model quality tests, and integrate facilities into base power flow and dynamic models.	Run hundreds of facility models through validation faster including PRC-029 baseline, EMT benchmarking, and blackstart capability. Automate data intake and improve model quality review, reduce bottlenecks, lower compliance risk, and help meet NERC, FERC, and internal utility requirements.
Cloud Powerflow Engine	Run hundreds of stability, steady state, and economic studies in parallel, automate generator dispatch and contingency set creation, and identifies violations and comparative results.	Scale studies to match interconnection demand without adding engineers. Spend less time building manual cases and custom contingency scripts, and more time making decisions.
Mitigation Portfolio Optimization	Identify violations and mitigation options automatically. Determine upgrade portfolios with cost and benefit information, including evaluation of GET's feasibility.	Compare alternatives with intelligent recommendations for faster decision-making, more effective capital allocation, and greater confidence that selected upgrades are both technically sound and economically justified.
Visualized Reports and Model Map	Aggregates results into dashboards, GIS visuals, and violation reports. Share models, data, and workflows across your organization.	Visualize massive amounts of simulation results on intuitive GIS maps, track historical findings, and communicate results to non-technical audiences.

FAST Planning Intelligence

FAST works alongside your trusted solvers to automate and accelerate transmission planning at scale. It automates data loading, facility model validation and benchmarking, case preparation, contingency development, simulations, and solutioning across the full study workflow. Execute studies in a fraction of time it takes today, so your team can spend less time on setup and more on high-value analysis.

 Facility Assessment Assess and validates models, including PSCAD benchmarking, for new facilities	 Scenario Development Builds cases through change incorporation, system dispatch, load scaling and contingency development	 Steady State & Stability Assessments Performs automated analyses to identify system performance limitations	 Mitigation Development incl GETs Drives mitigation development and associated upgrade costs through iterative analysis
 Economic Assessments Assess benefits of upgrade portfolio based on key metrics	 Blackstart Studies Evaluate facility Blackstart capability and restoration path feasibility	 EMT Automation Performs automated EMT analyses to identify potential subsynchronous limitations	 Analytics & Visualization Aggregates results into dashboards, GIS visuals, and violation reports

Engineering Grade Platform

- **Seamlessly Integrate with existing trusted solvers:** FAST helps you get more out of your existing Siemens PSS®/E, GE PSLF, and DSATools™ licenses by orchestrating and scaling studies across those tools.
- **Transparent Results:** With responsible automation, engineers are in the loop at every step of the process, so your results are verifiable and stand up to regulatory scrutiny.
- **Flexible and Extensible:** Deploy on cloud environments or on premises. Create custom automation and data integrations with a RESTful Python API.
- **Secure:** SOC II compliant with role-based access controls and full audit logging.

Expand Intelligence. Enhance Outcomes.

Build the Future of the Grid with Us

Our platform was co-developed with industry leading ISO/RTOs and utility partners. We work with each partner to craft a custom configuration to fit their needs, so FAST will continue to evolve to meet the grid planning, reliability, and interconnection needs of the future.

Join a growing group of utilities working with EPE as a strategic partner to have a voice in future platform direction. Together, we can deliver a grid that is more reliable, resilient, affordable, and ready for the future.

Your Trusted Energy Partner

EPE supports clients across the energy ecosystem with end-to-end solutions. Our work spans utility engineering, grid integration, regulatory compliance, and advanced analytics — delivered with the expertise needed to navigate the energy landscape. As consultants, engineers, and technologists, we act as an extension of your team, bringing a decade of experience and a shared commitment to building a resilient, reliable, flexible, and affordable energy future.

EPE Delivers Energy Intelligence

Visit epeconsulting.com/software to learn how we can transform your grid planning efforts.

