elpis
SQUARED

Elpis RE|Grid® Suite

Helping utilities transform data into clarity and action
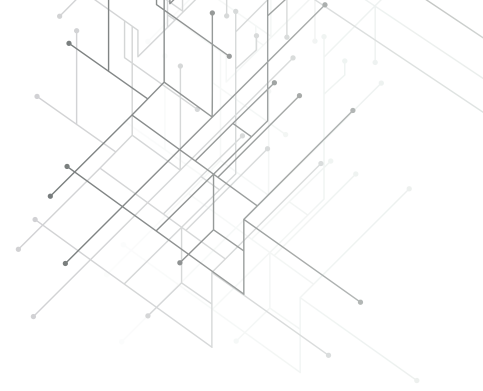
- Model Validator
- System Planner
- Power Analyzer
- Customer InterconnectDER
- System Optimizer

Ushering a new era of effective utility planning, engineering, and operations
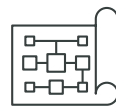
The Elpis RE|Grid® Suite transforms questionable data into dependable insights. With the volume of data on the rise from digitalization across the grid, data accuracy has become difficult to maintain. Setting a new foundation with reliable data ensures the right decisions are made at the right time. From today's operations to future planning, the Elpis RE|Grid Suite aligns features with cross-functional utility needs to maintain reliability and provide users with the actionable intelligence they need.

The utility industry faces various challenges, including significant demand growth, more flexible, distributed energy sources integration, and an unprecedented increase in data usage from intelligent electronic devices. Unifying SCADA, outage management, and distribution management systems are critical, but often result in implementation delays. The Elpis RE|Grid Suite supports system integrators, leverages reliable data, and reduces time to deployment.
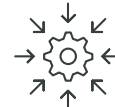
Elpis RE|Grid Suite User Groups

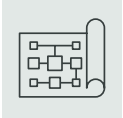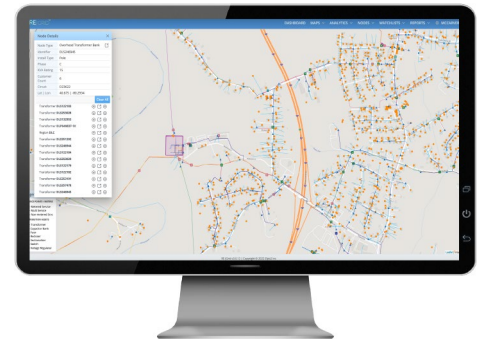|	Utility Planning	Utility Engineering	Utility Operations	System Integrators
Model Validator Validating the digital network model and in-field state	■	■		■
System Planner Planning tasks under one platform	■		■	■
Power Analyzer Analyzing power flow within big data ecosystems	■	■	■	
Customer Interconnect DER Interconnecting DERs made simple, fast, and effective	■	■		
Service Optimizer Optimizing quality of service within grid standards		■	■	

elpis
SQUARED

RE|Grid
Model Validator

The RE|Grid Model Validator (RMV) utilizes machine learning and advanced interpolation to improve data accuracy for fast access to verified, actionable information. The RMV ensures:

- Medium voltage and secondary network phase relationships
- Transformer-meter connectivity
- Conductor size continuity
- Asset-attributed data verification

Features

Native mapping engine to visualize validation analysis results

Customizable user dashboard summarizing key data issues

Automation schedule continuously synchronizes data

RE|Grid
System Planner

The RE|Grid System Planner (RSP) unifies critical system planning tasks under one platform for heightened situational awareness, delivering an accurate, multi-level view of system status. The RSP includes:

- 8760 load profile data cleansing and normalization
- Long-term capacity forecasting
- DER hosting capacity analysis

Features

Profiles and normalizes interval load data at different feeder aggregation points
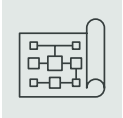
Export profiles for ADMS state estimation, annual regulatory filing, and load forecasting

Load forecasts with adjustable input such as weather, DER contacts, economic drivers, and more
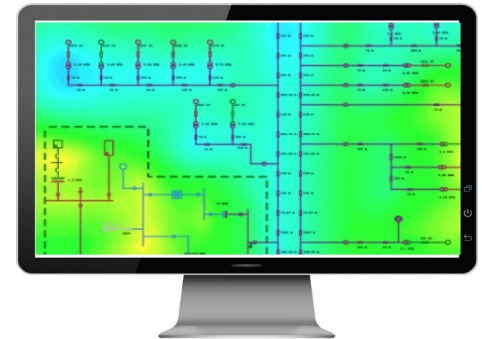
elpis
SQUARED

RE|Grid
Power Analyzer

The RE|Grid Power Analyzer (RPA) simplifies complexity with system-wide analysis using big data ecosystems to enhance future grid reliability. The RPA includes:

- Time-series based power flow engine
- High-speed distributed computing architecture
- Best case mitigation option identification

Features

Time-series power flow analysis based on the forecasted load output

Supports balanced and imbalanced radial networks

Short circuit and model mitigation analysis

The RE|Grid
Suite Delivers

Unparalleled Intelligence

- Improved data accuracy
- Heightened situational awareness
- Enhanced reliability
- Unmatched customer satisfaction
- Increased efficiency

Equipped Next Generation, Data-Driven Applications

- Library of pre-configured data and system adapters
- Default and customizable data mappings
- Business logic for data handling
- Data governance rules
- Continuous monitoring and reporting of system health
- Standard cyber security best practices
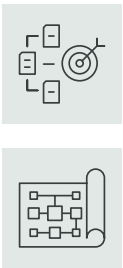
Utility Planning

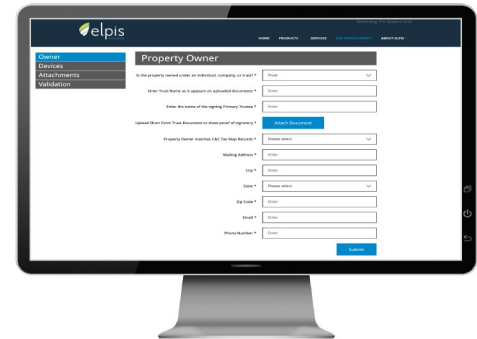Utility Engineering

Utility Operations

System Integrators

RE|Grid
Customer InterconnectDER

The RE|Grid Customer InterconnectDER (RCI) streamlines the DER interconnection process to support growing customer requests, enabling increased customer satisfaction for fast-tracking safe DER approvals. The RCI includes:

- DER application and work order management
- Automates data error checking and calculations
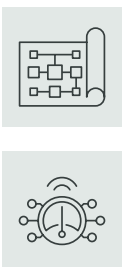- Workflow customization business logic

Features

Automated data error checking and calculations

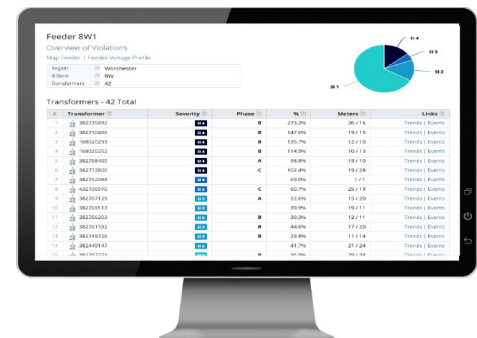**Simplified electronic signatures**

Integrate with RE|Grid System Planner to automate hosting capacity analysis

RE|Grid
Service Optimizer

The RE|Grid Service Optimizer (RSO) generates quality of service insights that raises end customer satisfaction and increases the efficiency of power delivery. The RSO includes:

- Network communication quality reporting
- Service voltage performance management
- Distribution transformer utilization analysis

Features

Intelligent "severity index" based on algorithmic ranking to prioritize overloaded transformers

Automated voltage profile creation based on time-series data

Proactive event analysis detecting asset performance issues

About Elpis Squared

Elpis Squared (Elpis2, Inc.) is redefining the modern grid through innovative, cost-effective management and optimization solutions that help customers achieve enhanced resource productivity, faster system implementation, and improved data accuracy.

Contact Us

Phone   (949) 514-8601

Email   contact@elpis2.com

Web   www.elpis2.com

Headquarters

4041 MacArthur Blvd
Suite 400
Newport Beach, CA 92660