

Confidence for **power system planning.**

PSS®SINCAL empowers grid planners to master grid complexity with reliable, engineering-grade simulation and analysis software.



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Resilient operation starts with planning.

Why PSS®SINCAL matters now

The dynamic energy landscape is changing distribution grid planning and operations. The increasing integration of renewables and ever-stricter regulations mean you must collaborate more intensively across teams and deliver results faster. The answer is a planning environment that lets you confidently model more scenarios with more data: PSS®SINCAL.



PSS®SINCAL enables power system engineers to master growing grid complexity with confidence. This software delivers reliable, clearly structured, and actionable results – built on decades of proven engineering precision and scalable simulation performance.



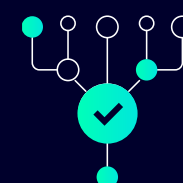
From complexity to clarity.

Intuitively create, adapt, and maintain your network model directly within the PSS®SINCAL GUI. Data can be easily imported or exported via Excel, CIM, etc.



From data to actionable insight.

Gain an overview of the smart grid, implement renewable integration strategies, and simulate future technologies thanks to a flexible and scalable modular platform.



From uncertainty to confidence.

Run high-speed simulations and analyze different scenarios to ensure maximum utilization of the grid system and to plan for reliable grid expansions.

Engineered for the realities of modern grids.

Clarity.

Understand your grid.
Trust your results.

Intuitive, well-arranged user experience that makes complex models and simulations easy to handle.

Continuity.

Always current.
Always relevant.

Regular releases, updates, and evolving support for long-term relevance, compliance, and future-readiness.

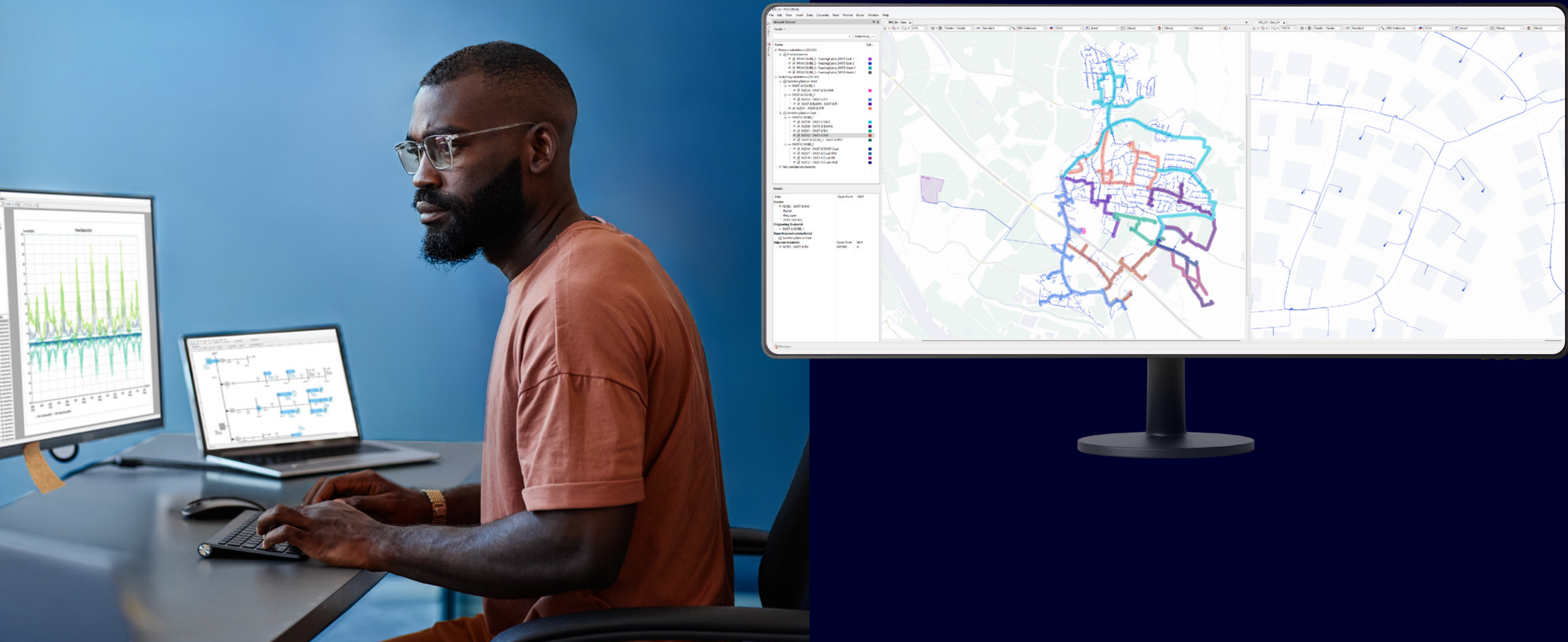
Connectivity.

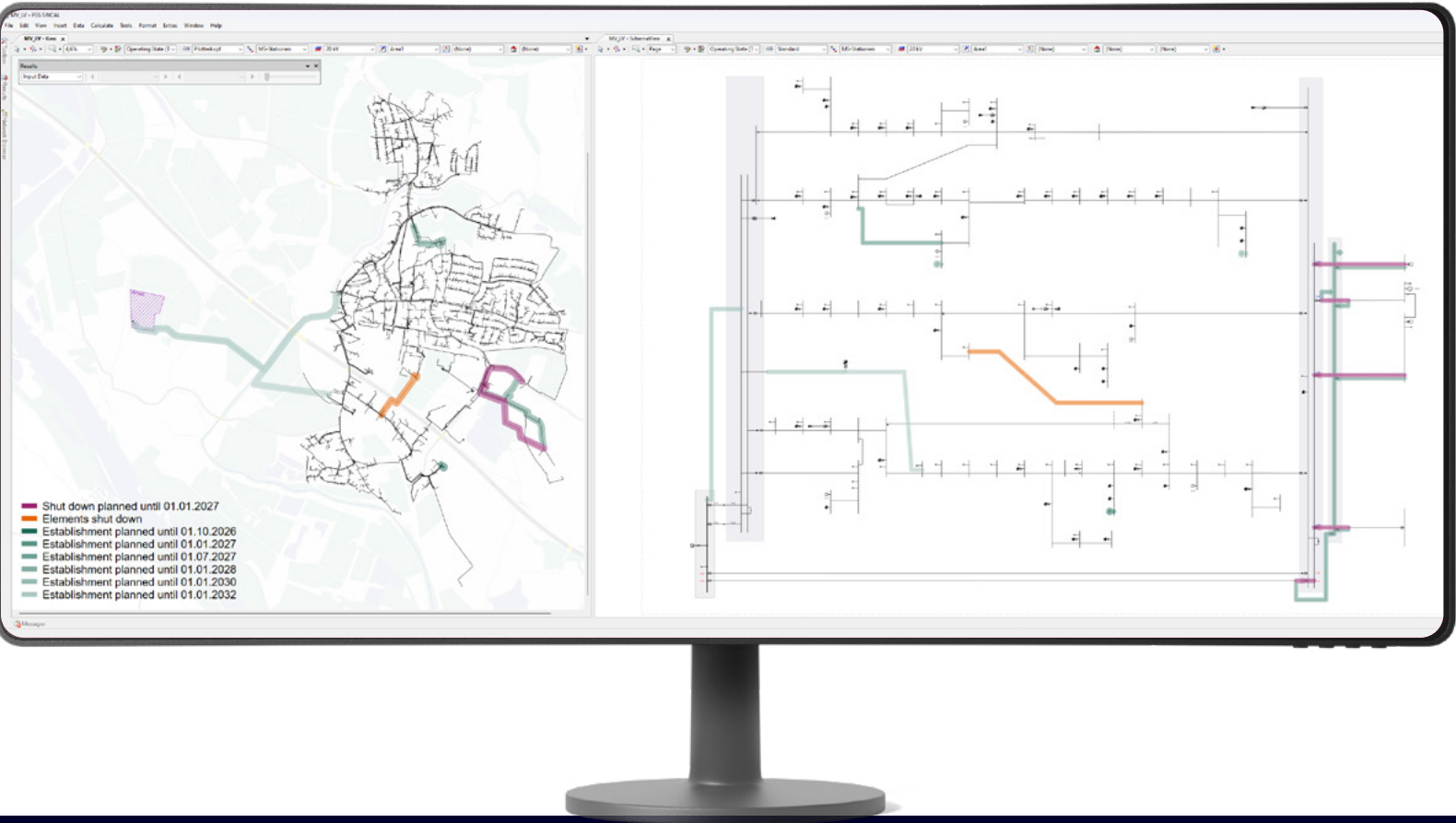
Open, integrated,
easy to automate.

Automation interfaces, open data model, and interoperability across tools and systems.

One product for analysis, planning, protection, and integrated transmission & distribution studies.

Integrate and visualize GIS seamlessly
Leverage PSS®SINCAL's robust end-to-end GIS interfaces for direct and accurate integration of your geospatial data. Visualize your network within a geo-referenced diagram, ensuring consistency in your planning and analysis workflows.



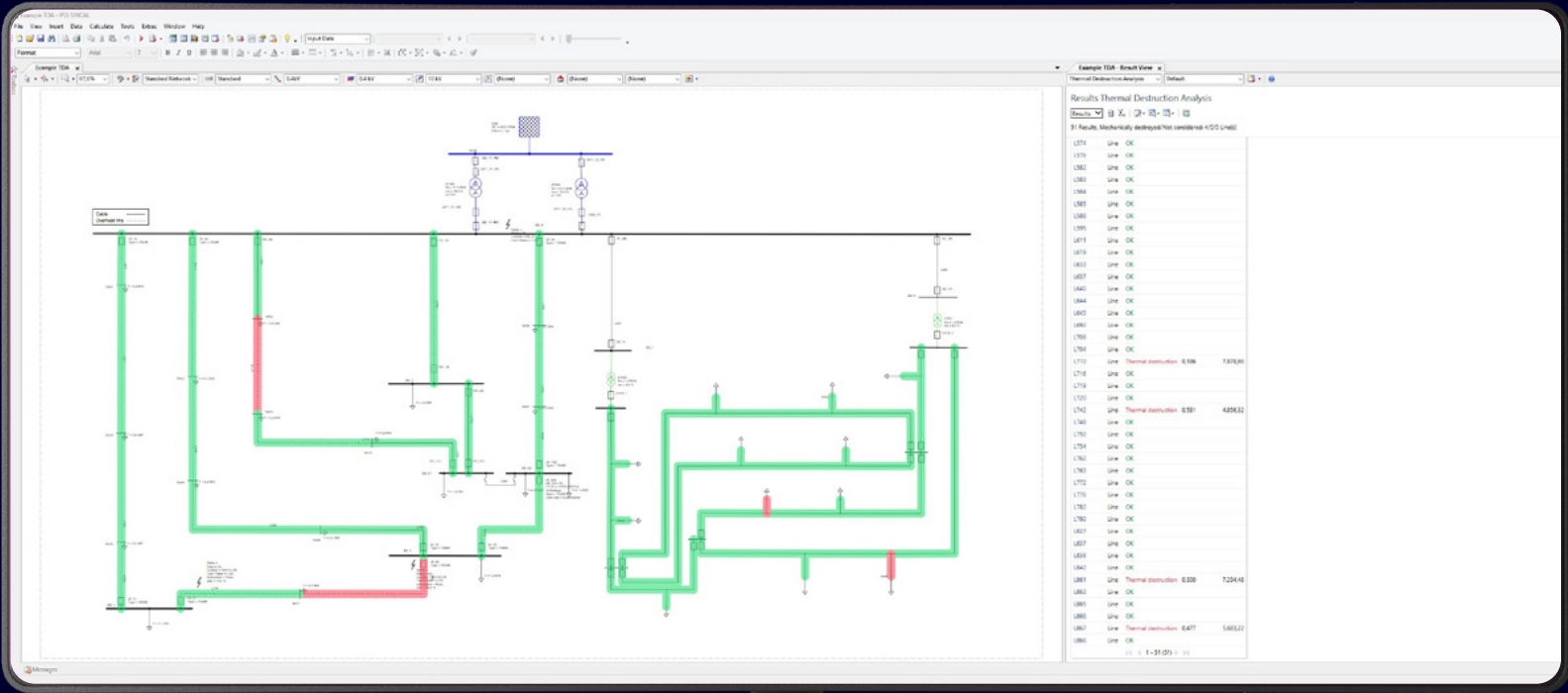


Synchronize network planning

Plan your grid extensions and asset replacement with confidence. PSS®SINCAL fully synchronizes your geo-referenced and schematic diagrams, providing a unified view for planning. Effortlessly generate case studies from your base model for efficient, precise analysis.

Perform massive parallel analysis

Analyze your entire network automatically and focus on what really matters. Using multi-core parallel processing, PSS®SINCAL runs comprehensive studies to present the actual weak points and issues in a clear, traceable way – for fast understanding and targeted action.

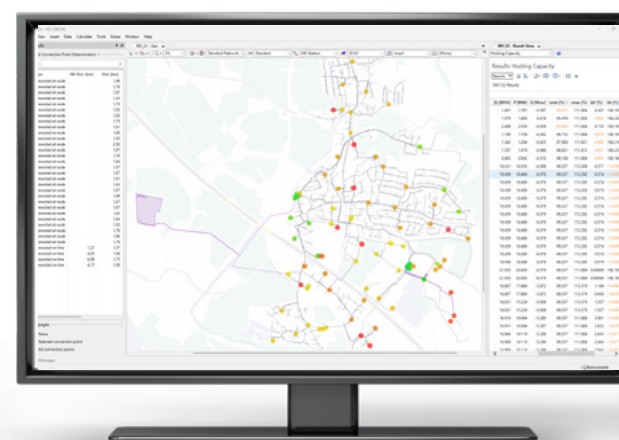


Key use cases.



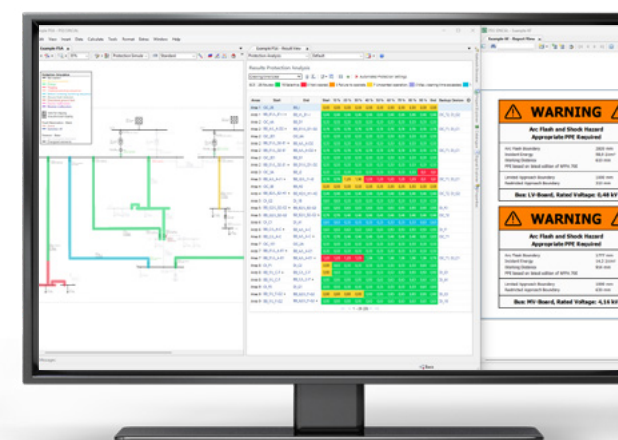
Power system modeling, design, and planning

PSS®SINCAL enables you to conduct detailed planning scenarios and post-operational studies to thoroughly analyze network behavior. Support the precise sizing of new control equipment or optimize existing control concepts and their settings, all based on a holistic analysis of representative operating points or complete time series.



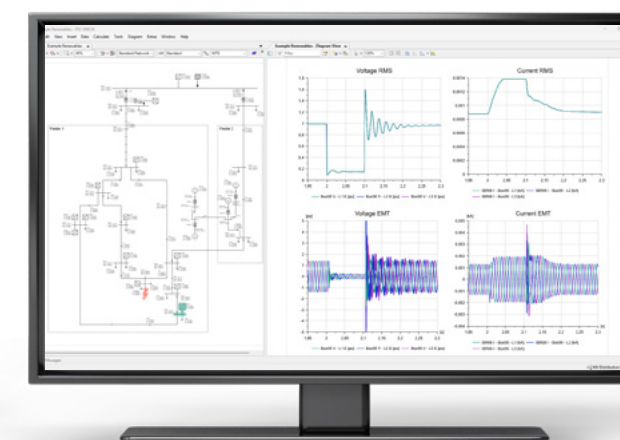
Integrated interconnection studies for DERs, electric vehicle charging, and loads

With PSS®SINCAL, you can efficiently identify connection point candidates within geo-referenced diagrams. Develop and evaluate various routing options for new lines, supported by pre-analyzed nodal hosting capacity and comprehensive grid code compliance checks for new DERs.



Protection and arc flash

PSS®SINCAL provides automated protection verification checks across the network, reliably identifying weaknesses and ineffective protection. You are able to perform detailed evaluations and optimization of protection settings, including automated parameterization and adjustment of protection systems. You can also calculate arc flashes to assess personnel hazards and define protection measures.



Dynamic and transient stability

PSS®SINCAL combines Dynamic (RMS) and Electromagnetic Transient (EMT) analysis in one integrated tool. You can study grid behavior seamlessly across time scales – from system-level stability to fast electromagnetic effects – using a single, consistent network model. This reduces complexity, avoids data duplication, and enables faster, more reliable stability analysis.

Request your trial now.

Go to trial page



Or explore our product on www.siemens.com/pss-sincal.



Reach out to your sales contact or send a request to sincal.energy@siemens.com.



Tailor your setup together with us to meet your needs.



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