

Distribution and industrial solutions

Bringing a world of knowledge to your business

At a glance

Siemens Power Technologies International (Siemens PTI) is a world leader in distribution systems analysis having performed extensive studies in key distribution disciplines. Our staff has provided services in more than 60 countries to a diverse client base that includes electric power utilities, as well as oil and gas, steel, chemical, paper and cement industries.

Some key services provided by Siemens PTI include:

- system expansion planning
- system reliability and power quality assessment
- system control tuning
- system protection coordination
- system simulations using almost any software tool available in the market

The challenge

The introduction of competitiveness in the electricity industry has created opportunities and challenges. Increasingly being perceived nowadays as a commodity, electricity is an essential service. The traditional roles of genera-

tion, transmission, distribution, load, trader, financier and regulation are evolving.

In addition, new emerging technologies are highlighting the fact that the electric power distribution grid must equally be upgraded. Rewiring distribution systems with advanced computer control allows power to be distributed more efficiently, securely and robustly. This in turn facilitates the spread of low cost renewable energy sources.

Industrial power systems are also affected by this new environment in the electric power sector. Industries need reliable, economical and safe power to supply their industrial loads. Power quality is a key element to maintain at all times within their facilities.

Our solution

Siemens PTI provides independent technical consulting services for the power industrial and distribution sectors worldwide. Our comprehensive expertise, which combines hands-on field experience with the most advanced software tools available in the industry, provides analytical capabilities that can address any client prob-

lem or issue. Siemens PTI can assess the economic viability of a distribution project in a competitive environment and its technical feasibility.

Siemens PTI supplements its independent consulting services with PSS®SINCAL, a power simulator that can be used to study all aspects of electric power systems for utilities and industries as they exist today or as they are expected to be tomorrow. To satisfy specific needs from our clients, we have the expertise required to use any software tool available in the market, including other industry-leading Siemens products such as PSS®E.

Sample services to the distribution and industrial sectors

Siemens PTI can help the industrial and distribution sectors with comprehensive analysis for:

- steady-state studies (load flow, short-circuit, harmonics, power quality, voltage stability)
- dynamic studies (small signal and transient stability, motor starting, load shedding, load rejection)
- protective device coordination
- reliability studies
- equipment sizing
- review of planning procedures and feasibility studies (interconnection impact analysis, technology impact and trade-off analyses, asset valuations, cost analysis)
- analysis of electricity market (load forecasts)
- analysis of historical and projected CapEx programs (top down - bottom up)
- distribution planning

