

Smart Grid Solutions: *Delivered*

Technology • Consulting • Services



Minimize Challenges, Maximize ROI of Your Smart Grid Project

Apex CoVantage delivers comprehensive solutions that address the complex requirements of today's Smart Grid initiatives. Apex offers a technology-agnostic approach, combined with our powerful process-driven workforce management system, intelligent GIS integration, and highly customized customer engagement programs to ensure the **total success of your utility's multifaceted Smart Grid initiative.**

A successful, cost-effective Smart Grid implementation has a multitude of moving parts. Until now, a typical implementation meant lining up multiple vendors, choosing the right technology, integrating multiple systems within the utility, coordinating installation and inventories, and juggling conflicting initiatives, priorities and budgetary concerns. Many utilities perform due diligence in technology or systems integration, but are blindsided by the enormous costs and down time due to resistance from consumers who are not adequately educated on the benefits and implementation of Smart Grid.

The missing piece to the Smart Grid puzzle... **Apex CoVantage, a full service integrator with real world experience to manage all aspects of planning, implementation and adoption.**



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End-to-End Smart Grid Solutions

Apex delivers a turnkey suite of Smart Grid solutions to utilities, cooperatives and municipalities. Our offerings include:

Consulting. Apex is uniquely qualified to provide pre-project consulting and advisory services, including strategic and business case analysis, RFP development, third-party vendor selection, contract negotiation strategies and guidance with funding proposals.

Smart Grid Design. We determine the best technology for your needs, not ours. Using your success metrics for considerations like peak demand reduction, outage detection, theft alarms and energy conservation, we will design an integrated Smart Grid system customized to fit your unique needs and goals.

Procurement. We negotiate and purchase all hardware and software on your behalf.

Implementation. We manage the entire project, including staged technology deployment, pilot installations, system acceptance testing, project commissioning and final acceptance and turnover. Apex works with you to provide as little or as much assistance as needed.

Installation. Our project management and workforce management expertise ensures smooth installation. *ProField*[®], Apex's proprietary workforce management tool, assists with site surveys, field data collection, QA, meter identification and deployment, MDM and field to office communication.

Systems Integration. Our experienced IT team installs new software, updates and performs legacy system data hygiene, completes the systems integration of MDMS/ Head End, and implements automated processes including billing, CIS, GIS, OMS, EMS, SCADA, customer care and asset management.

Verification and Maintenance. We ensure that all Smart Grid components are fully functional, and maintain backend systems and field assets. We can incorporate your GIS data, engineering design workflow and perform engineering data purification.

Installation Services

Apex installs all components of the Smart Grid infrastructure relating to electric, gas and water metering and communications, including access relays, data gathering and replacement of legacy meters with smart meters. Apex installation management services are specifically engineered to streamline processes, deliver unparalleled quality, provide a positive customer experience and ensure safety every step of the way. This leads to productivity increases as high as 70%, up-to-the-minute data and quality assurances, and greater ROI for your project.

Systems Integration

Apex performs the staged integration of your new Smart Grid with your MDM systems. You benefit from the efficiencies and cost savings that result when all systems including billing, OMS, CIS to GIS, EMS and SCADA support each other seamlessly. Our expert integrators will incorporate your security systems and legacy databases with existing departmental functions, as well as with new services like customer-facing web portals, load control management servers, and even smart phone applications. We can also integrate your systems with external system interfaces to provide support for future systems and upgrades.



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We're Smart Grid Technology Integrators

Smart Grid is complex, but choosing the right provider is simple, when you consider all that Apex has to offer.

Apex CoVantage is a true Smart Grid Technology Integrator, applying industry-leading practices to drive high value results. Our unique approach combines **effective project management, leading technical systems and unparalleled industry expertise** to deliver responsive and reliable solutions.

Why choose Apex?

Apex works as your partner. We take full ownership in helping you achieve long-term goals, not short-term gains. Because Apex can manage all facets of planning and implementation, you not only eliminate vendor integration issues, but remove the need for internal personnel to manage communication between multiple vendors and your organization. Working with Apex, you enjoy economies of scale and improved productivity that come from one-partner collaboration.

We're technology agnostic. Using a broad range of qualification criteria, we choose the best-in-class components to design, build and commission the most cost-effective Smart Grid solution for you. We review the technologies available for your project and make recommendations based on your goals and your needs, not on pre-defined constraints. Our open architecture systems work in concert with your legacy systems, so you maximize existing infrastructure.

Suite of scalable technology solutions. Our integrated, end-to-end solutions facilitate increased project efficiency and productivity for the lifecycle of your initiative. Apex has produced some of the industry's best project accelerator platforms, including our proprietary field asset management system, *ProField*®.

Deep industry expertise. Led by Lendon Ellis and David O'Brien, two visionaries of Smart Grid, Apex brings more than two decades of experience in utility fieldwork initiatives for many of the best known utilities throughout the industry.



David O'Brien,
Apex Smart
Meter/Smart
Grid Advisor,
orchestrated
one of North
America's fast-

est, most extensive Smart Grid deployments as CEO of Toronto Hydro. This involved the Smart Meter Deployment and Time of Use (TOU) billing implementation of over one million smart meters and the integration of its billing system with an MDM/R system. In addition, Toronto Hydro launched a successful web portal where consumers can go for information on their consumption and cost, enabling the utility to build momentum toward a successful conservation program.

Distribution Automation: The Final Step in a Smart Grid Project

To effectively improve DA facilities, a utility must have a solid foundation of existing installed equipment—often involving hundreds or even thousands of power distribution devices. The value-add Apex brings to the world of Distribution Automation (DA) planning and improvement comes in the form of ProField's asset management capabilities. With ProField, utilities can engage in performing a complete network survey including, but not limited to:

- ▶ gathering accurate GIS coordinates for every DA device
- ▶ taking digital photographs of all equipment
- ▶ identifying equipment information from base-plates
- ▶ identifying and reporting hazardous conditions when found, and
- ▶ identifying other pertinent data points—such as substation data.

Apex's DA service utilizes ProField to create an entirely paperless process giving rise to highly productive processes and extremely accurate data for timely and actionable DA information. This data can then be leveraged by the utility's Distribution Planning Engineers to perform engineering studies and construction planning for faster construction and maintenance enhancements to the network and greater distribution system reliability.

Increase ROI with Apex Value-Added Services

Over the last 20 years, Apex has redefined project management by introducing new workflows and processes that vastly improve the flow of communication, information and data exchange. By incorporating best-in-class technologies and services into our Smart Grid engagements, Apex clients benefit from the highest level of operational efficiencies and 360-degree service.

GIS Optimization

As a leading provider of GIS solutions for utilities, Apex improves operational efficiencies by enhancing your GIS data to fully support the Smart Grid. By combining precise GIS data with rich, meter-level MDM data, Apex clients manage their networks at a granular level never before possible.

ROI benefits:

- ▶ Significant cost savings realized by sharply reducing truck rolls needed to investigate outages, connect or disconnect meters and other field issues
- ▶ Faster and more predictable restoration
- ▶ Higher customer satisfaction through proactive, reliable customer communications in an outage

Leverage Operational Data

Apex can incorporate field notes from your internal teams into our *ProField*[®] database to provide proactive field intelligence that alerts your crews of potential issues. This includes meter reading route data, installation issues and specific customer situations of which crews must be aware.

ROI benefits:

- ▶ Streamlines installation process and reduces costs
- ▶ Increases preparedness of field teams
- ▶ Improves customer interactions

Customer Engagement Programs

When planning a Smart Grid initiative, customer buy-in is critical to program success. As a Smart Grid integrator, Apex offers comprehensive community outreach, as well as educational planning and programs that increase customer awareness and acceptance, and strengthen relations between the community and utility. Apex provides consumer information vehicles, educational workshops, and can develop your local presence at home improvement stores and community events. We hire members of the community to engage, educate and encourage residential customers on Smart Grid, reducing measurable energy and water consumption, understanding time-of-use rates, and how their smart meters operate.

ROI benefits:

- ▶ Removes burden on utility staff and frees up utility resources
- ▶ Proactive community relations program manages customer expectations
- ▶ Greater and faster Smart Grid adoption within the community



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About Apex CoVantage

Apex CoVantage is a private, employee-owned company that has helped businesses to develop and execute information and knowledge strategies for more than two decades. Apex was a pioneer in the off-shore knowledge-based solutions, and now has more than 2,500 employees in the US and abroad. Apex is known for developing and improving man-machine processes that optimally combine human creativity with machine processing efficiency, introducing transformative solutions that lead to quantum gains in efficiency. Apex is recognized as one of the premier firms in its field, working for clients such as AT&T, Exelon, Baltimore Gas and Electric, Qwest, Silver Spring Networks, SMUD, Veridian Connections and more. For more information, visit www.apexcovantage.com.

Call our Smart Grid Experts today to learn how Apex can help you maximize the return on investment of your smart grid initiative.

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