

Smart Grid Center of Excellence (COE) Raleigh, NC

The electrical power system, which has been built up over more than 100 years, is now one of the most effective components of the infrastructure on which modern society depends. However, growing demand, an aging infrastructure, and high carbon emissions have raised concerns about poor reliability, efficiency, and sustainability. The future will require the coordination of advanced smart grid technologies, business processes, and people to solve these challenges in a sustainable, reliable, and economic way.

Center of Excellence

The ABB Smart Grid Center of Excellence (COE) provides utilities a single point of contact to leverage ABB's proven expertise as a worldwide Transmission & Distribution (T&D) Operations Technology (OT) and Information Technology (IT) system provider. The COE displays many of the products and solutions from ABB's smart grid portfolio and allows utilities to get engaged with live functional demonstrations of cutting-edge smart grid technologies. Through the design and integration of quality products and solutions, ABB is delivering reliability, efficiency, sustainability, customer engagement, and operational effectiveness to utilities of any size.

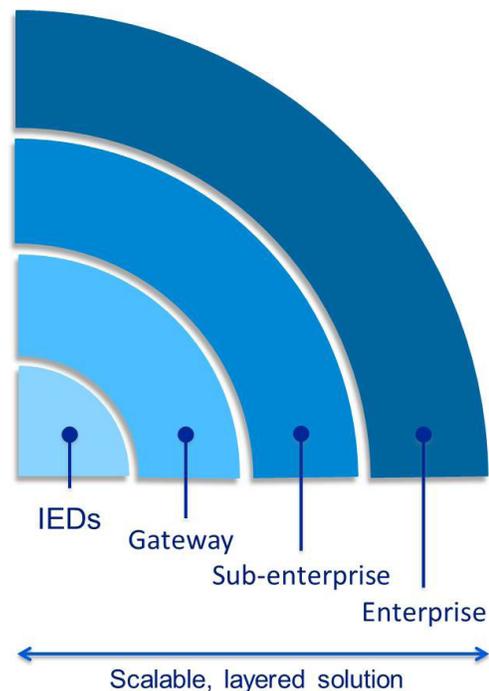
Smart grid on any budget

Smart grid solutions are not a luxury reserved only for the largest and most profitable utilities. Solutions can be developed and implemented for utilities of any size. ABB helps utilities with any budget establish priorities around their vision and then develop, implement, and expand a smart grid solution that allows them to reach their goals.

For many utilities, the easiest solutions to justify are those that improve reliability and efficiency. For reliability, there are options like fault detection isolation and restoration (FDIR) that help utilities reduce the duration and frequency of outages. For efficiency, volt VAR control (VVC) applications can reduce waste and improve power factor, which has many benefits such as reducing generation costs.



In many cases, the investments and costs for scaling smart grids are not linear. That means that taking a grid to the next level doesn't have to require a lot of effort or expense. The experienced team at the COE helps utilities find solutions that meet their needs without breaking the bank.





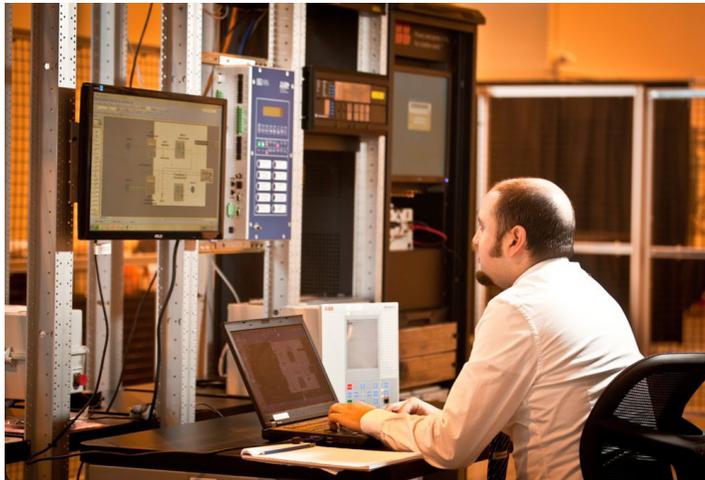
Microgrid, MicroSCADA, and Relion® wall



Live demonstration grid

Verification Center

The COE also includes a Verification Center where utilities can collaborate with ABB engineers to verify the integration of smart grid solutions and the interoperability of ABB products with other manufacturers and third party vendors. This is essential to ensuring that planned smart grid projects go smoothly and deliver the intended results.



More advantages of the Verification Center:

- Use any of our installed wireless communications systems to perform applications testing in a real-world environment
- Conduct integration and applications testing prior to site deployment to reduce integration time by 30% or more
- Perform factory acceptance testing
- Site acceptance testing services
- Field integration of end-to-end system solution

Technologies to experience at the COE

- Distribution management
- SCADA
- Outage management
- Business intelligence/analytics
- Demand response management
- Relion® family of protection and control relays
- MicroSCADA
- Microgrids
- Cyber security
- Communications
- Substation automation
- Live hardware apparatus
 - Reclosers
 - Breakers
 - Motorized switch
- Self healing grid
- Home energy management

For more information please contact:

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