Reliability and economic planning for the energy grid.

DNV GL’s Power System Planning (PSP) Group has expertise in all aspects of reliability and economic planning for generation, transmission & distribution. Our clients enjoy the benefits of a global knowledge as well as independent, unbiased viewpoints. Our expertise covers all major power system software with automation capabilities, including our proven in-house tools. Our neutral stance regarding software platforms allows us to use the most appropriate tools available when performing analyses, conducting studies, and planning power systems. This, in turn, allows us to provide the best solution for each individual application.

DNV GL’s Power System Planning experts have been providing advisory solutions to our Clients across all RTOs/ISOs in the following areas: generation development and investment, transmission, distribution, and commercial and industrial (for details on each of these service areas, see the next page).
## Generation Development & Investment
- Generation Optimal Siting from Reliability & Economics standpoint
- Model development & Interconnection Application filings
- Advanced technical studies supporting planning, design and energization stage
- Financial Risk Assessment
- FERC/NERC/RTO/ISO Compliance
- Testing & Measurements
- Special Studies (Black start, Electro-magnetic Transient, Harmonics, Sub-synchronous Resonance & Control Interaction)

## Transmission
- Reliability & Economic Planning/Expansion (Long/ Near term)
- Facility Interconnection Studies
- Transmission Congestion & Risk Assessment
- Benefit-Cost Assessment
- Design, Protection, Control & Construction Support
- Power quality and Harmonic measurements
- Special studies (SOV, TOV, MAD)
- FERC/NERC/RTO/ISO Compliance

## Distribution
- Improvement planning (Long/Near term)
- Power quality and Harmonic penetration
- Annual Cap-Ex & Budget Evaluations
- DER hosting and maximum penetration analysis
- Microgrid integration analysis
- DER/Storage interconnection analysis

## Commercial & Industrial
- Electrical Infrastructure Evaluation
- Life Cycle Cost analysis
- Technical QA/QC & Risk Review
- Special Studies (Protective device coordination, ARC flash, Ground grid)

* For all service lines: Expert Witness Services (common service to all areas)

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**About DNV GL**

Driven by its purpose of safeguarding life, property and the environment, DNV GL enables organizations to advance the safety and sustainability of their business. DNV GL provides classification and technical assurance along with software and independent expert advisory services to the maritime, oil & gas energy industries. It also provides certification services to customers across a wide range of industries. DNV GL, whose origins go back to 1864, operates globally in more than 100 countries with its 16,000 professionals dedicated to helping their customer make the world safer, smarter and greener.

**In the Energy industry**

In DNV GL we unite the strengths of DNV, KEMA, Garrad Hassan, and GL Renewables Certification. DNV GL’s 2,500 energy experts support customers around the globe in delivering a safe, reliable, efficient, and sustainable energy supply. We deliver world-renowned testing, certification and advisory services to the energy value chain including renewables and energy efficiency. Our expertise spans onshore and offshore wind power, solar conventional generation, transmission and distribution, smart grids, and sustainable energy use, as well as energy markets and regulations. Our testing, certification and advisory services are delivered independent from each other.

**For more information, please contact:**

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