The Power Sector Program (PSP) is a U.S. Department of State, Bureau of Energy Resources (ENR)-led effort to provide a wide range of technical support to create solvent, reliable, transparent, and sustainable power sectors in countries across the globe. The PSP is conducted through a combination of direct contracting, peer-to-peer exchanges with regulators and system operators, and leveraging of U.S. institutional capacity through interagency agreements with agencies and laboratories.

Depending on priorities, technical support provided through ENR’s PSP is designed to: 1) fill niche gaps in power sector development; 2) build on prior donor reform efforts in order to help ensure long-term success; 3) jump-start market and sector reforms; and 4) catalyze private investment in reformed power sectors.

**ACTIVITIES INCLUDE**

- In-country advisor support to develop and revise oversight, legal, and planning structures to further reforms and stimulate private investment.
- Specialized assistance to develop competitive and transparent tendering and bidding processes for power projects, and mechanisms to attract the most optimal investment for the region, while protecting a country’s resources and financial investment.
- Workshops and seminars designed to facilitate the removal of institutional and regulatory roadblocks impeding progress on country-specific power sector reforms.
- Expert guidance on generation, transmission, and distribution infrastructure options, particularly to incorporate alternative and advanced technologies.
- Technical, legal, and regulatory guidance for ongoing or planned transmission system interconnection projects to ensure country links are utilized effectively and provide optimal value.
- Innovative financing mechanisms to incentivize the flow of private capital for alternative energy resource development.
- Guidance on assessing, avoiding, and mitigating potential environmental impacts of power projects.
- Bilateral and multilateral diplomatic engagement to overcome political, regulatory and technical obstacles to the benefits of electrical interconnections and integrated electricity markets, in order to expand access to energy services, increase regional energy trade, and bolster energy security.
- Training in energy resource and system optimization.

**CAPABILITIES**

PSP utilizes a range of modeling software, including Power Factory, ETAP, MATLAB, SDDP, Plexos, DigSILENT, and PROMOD to conduct power system analysis.

**Technical:**
- Optimal generation and transmission expansion scenarios
- Renewable integration analysis
- Dispatch optimization and load forecasting
- Contingency analysis
- Stability and reactive power compensation analysis
- Transmission capacity analysis
- Integrative resource planning

**Commercial and regulatory:**
- Market monitoring and surveillance tools
- Competitive and transparent procurement processes
- Power market regulations and procedures, including contractual frameworks and reliability standards
- Financing models, credit enhancement mechanisms, and business development
- Tariff rate review and design
- Grid code assessment