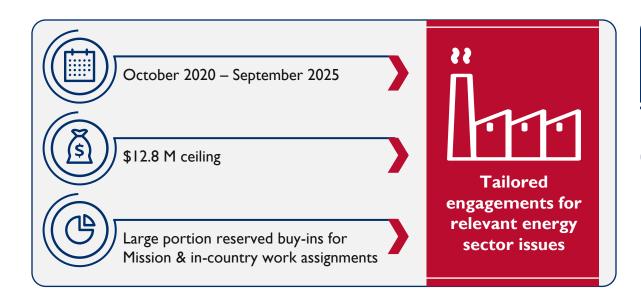


April 2021

SUPER Roadshow



STRENGTHENING UTILITIES AND PROMOTING ENERGY REFORM (SUPER)





SUPER works hand-in-hand with developing country utilities and other energy sector entities to:

- Increase electricity grid access
- Decrease technical and commercial losses
- Strengthen human capital and operational practices
- Explore new models for private sector engagement
- Electricity supply chain
- Challenges and concerns related to utility companies and electricity provision

SUPER's flexible structure streamlines USAID's assistance to partner country counterparts and enables Missions and Operating Units to quickly provide tailored assistance for short-term, priority projects.



High-Performing Utilities

- I. Developing sector assessments and strategies
- 2. Hosting workshops and forums
- 3. Preparing program designs and evaluations



Strong Legal & Regulatory Frameworks

- 4. Designing new market structures
- 5. Developing legal & regulatory frameworks
- 6. Designing models for private sector participation
- 7. Corporate governance



High-Performing Utilities

- 8. Utility financial modeling & tariff analyses
- 9. Customer regularization & metering
- 10. Improving access to electricity service
- II. Integrating new technologies & trends
- 12. Utility re-organization & capacity building



Cross-Cutting

- 13. Promoting gender equality
- 14. Environmental & social inclusion leading practice
- 15. Training and technical assistance
- 16. 'Best practice' analyses, reports, and media production

HOW TO UTILIZE SUPER

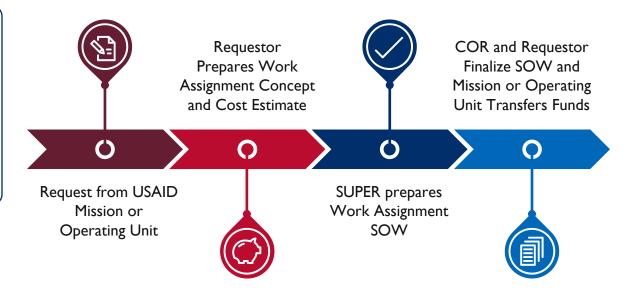


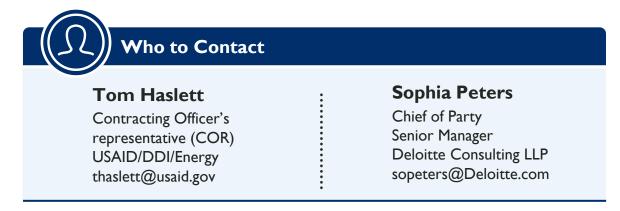
Country Missions and Operating Units can access SUPER through **buy-ins based on discrete SOWs and budgets** for each piece of work.



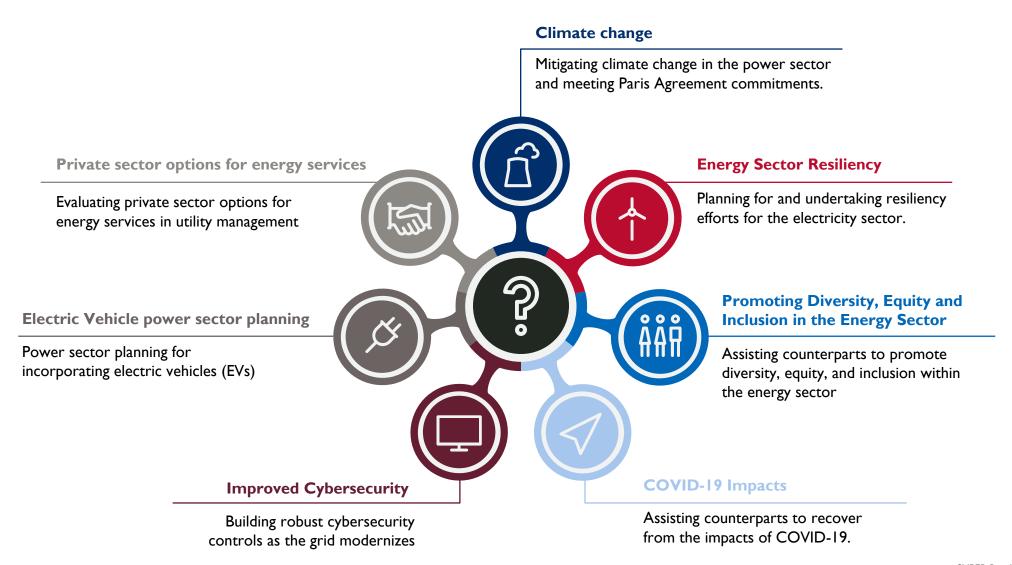
There is a distinct **USAID Activity Manager** from the Mission or Operating Unit that oversees the work together with the COR.







KEY ISSUES FACING YOUR MISSION AND HOW SUPER CAN HELP

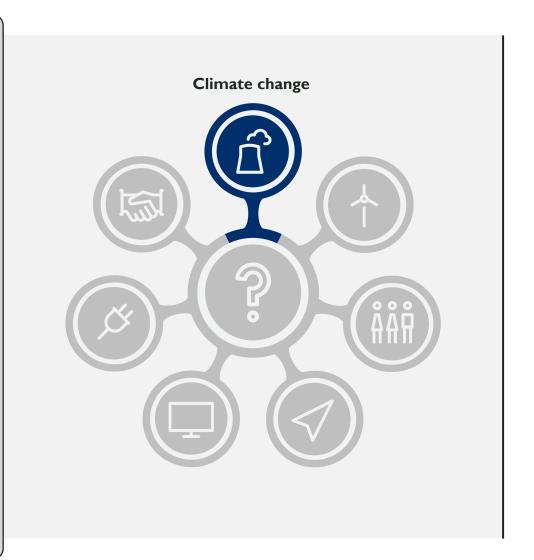


MITIGATING CLIMATE CHANGE AND MEETING PARIS AGREEMENT COMMITMENTS

The world is working together under the Paris Agreement to meet a global commitment to limit global warming. To date, this has meant drafting and implementing Nationally Determined Commitments (NDCs) and progressing toward the global compilation of all the countries efforts.

At the same time, a tremendous number of private companies and multinational corporations have committed to decarbonization and sustainability goals. As of March 2021, 290 companies across the globe have committed to 100% renewable electricity targets.

- Identifying opportunities to modify and update NDCs; plan for implementing projects related to NDCs, and quantifying progress against NDCs
 - Examining NDCs and the power sector's role in achieving emissions reductions, including financial modeling or capital investment planning matched to NDC targets to support access to green finance mechanisms
- Developing strategies and roadmaps to achieve climate objectives (e.g., decarbonization, development of cleantech businesses)
- Understanding the landscape of climate finance mechanisms and mobilizing new sources of private and public finance for climate change mitigation projects
- Channeling corporate commitments to climate change to support power sector growth
- · Performing grid integration studies and investment plans for renewables



MITIGATING CLIMATE CHANGE AND MEETING PARIS AGREEMENT COMMITMENTS





Ways Missions can utilize SUPER for this type of project

- · Climate change funding
- Energy programming
- Economic growth (green recovery)
- Financing self-reliance



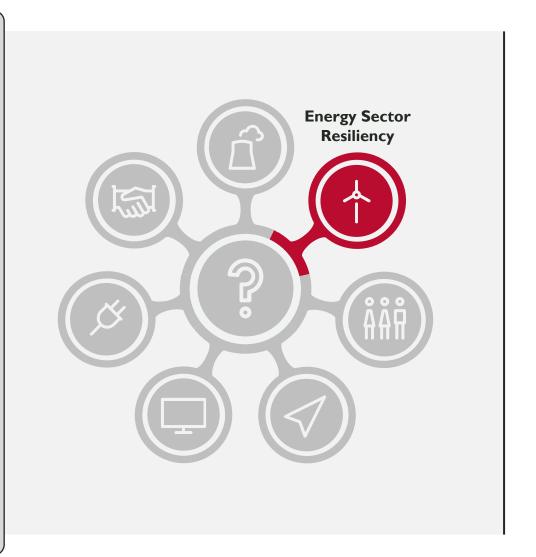
- How USAID assistance to help governments mitigate climate change and adapt to its impacts
- modelling with an understanding of emissions reduction pathways at a sector level, to achieve net zero emissions
- Supported transformation in the clean energy industry across South and Southeast Asia accelerating investor interest and project development, achieving financial mobilization of more than \$294 M.

PLANNING FOR AND UNDERTAKING **RESILIENCY EFFORTS** FOR THE ELECTRICITY SECTOR

Recent natural disasters, extreme weather events, and unplanned scenarios have illustrated that electricity systems need to prioritize resiliency. Ensuring the electrical grid can withstand certain levels of shock and different types of interruptions will be critical for countries as the climate continues to change and extreme weather continues to strain current state operations.

Understanding how to incorporate these scenarios and who and how to pay for resiliency upgrades will be important for utility companies and energy sector assets.

- · Scenario planning and emergency response modeling
- · Resiliency strategies and action plans
- Stress testing and baselining related to the length and number of interruptions in electricity distribution
- Facilitating private investment for necessary infrastructure upgrades, including integrating renewables/microgrids into distribution networks to enhance reliability and resilience
- Updating asset management strategies and practices to reflect resilience factors



PLANNING FOR AND UNDERTAKING **RESILIENCY EFFORTS** FOR THE ELECTRICITY SECTOR





Ways Missions can utilize SUPER for this type of project:

- Climate change programming
- Disaster response programming

Examples of USG assistance to help

NREL partnership



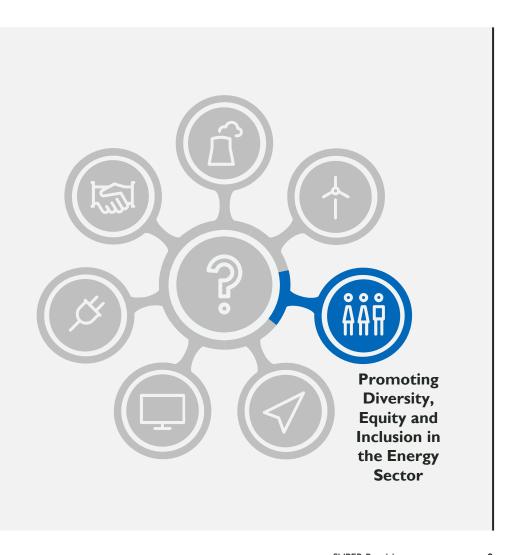


 Supported the U.S. Navy with project management, analytics, engineering, and technical support to facilitate large-scale infrastructure initiatives to drive resiliency, including 640MW in new resilient power generation closed and \$980M in third-party financing commitments for planned and awarded projects

ASSISTING COUNTERPARTS TO PROMOTE **DIVERSITY**, **EQUITY**, **AND INCLUSION** WITHIN THE ENERGY SECTOR

Forward thinking utility companies and energy sector entities are looking to build a diverse workforce to better connect with customers, transform their organizations, and appeal to the next generation of talent.

- Promoting understanding of business case for diversity and inclusion
- Building capacity for leading practices in promoting equity within institutions
- Helping design regulations and policies to promote women's and historically underrepresented minorities participation in the energy sector
- Development of professional associations to support women's and underrepresented minorities' advancement in the sector
- · Assisting with disaggregated data collection to better serve underrepresented customers
- Assisting with utility communications to underrepresented minorities and low-income customer segments



ASSISTING COUNTERPARTS TO PROMOTE **DIVERSITY**, **EQUITY**, **AND INCLUSION** WITHIN THE ENERGY SECTOR





Ways Missions can utilize SUPER for this type of project:

- Gender Equality and Women's Empowerment Hub
- Inclusive Development Hub



Examples of USAID assistance to promote diversity, equity, and inclusion within the energy sector

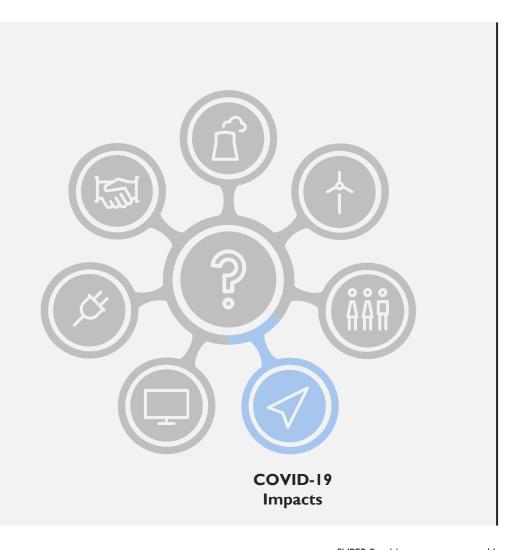
- In West and Central Africa, created a women's regional energy association and women energy champion series to support women's advancement in the sector
- In Jordan, implemented workplace regulations and policies to increase women's participation in energy sector entities
- In Southern Africa, implemented a multicounty survey for gender and underrepresented minorities disaggregated impacts to electricity access

ASSISTING COUNTERPARTS TO RECOVER FROM THE IMPACTS OF COVID-19

The COVID-19 pandemic has created unique challenges for the electricity sector in most countries with significantly different demand profiles, commercial and residential customers unable to pay, and record low oil prices, among other large shocks. Charting a sustainable and viable way forward will be critical for the economy and future growth.

Utilities in the sector will need to evolve their business model, stabilize their financial situation, recoup payments, consider new generation, and collaborate with the government and regulator to ensure these changes are made in a fair and equitable way.

- Power sector impact modeling and scenario planning for post-COVID-19 response
- Regulatory planning and strategy for deferred customer payments
- Reviewing and reconciling accounts payable
- Financial analysis and options to respond to shortfalls from COVID-19 shutdowns, assess cost allocations, regulatory/policy decisions on billing halts/free power, and tariff changes
- Continuity-of-operations planning based on lessons learned from pandemic to prepare for future crises



ASSISTING COUNTERPARTS TO RECOVER FROM THE IMPACTS OF COVID-19





Ways Missions can utilize SUPER for this type of project:

- Disaster response programming
- Emergency relief (Humanitarian assistance) programming
- · Global health programming
- Economic growth (green recovery)



Examples of USAID assistance to counterparts on COVID-19

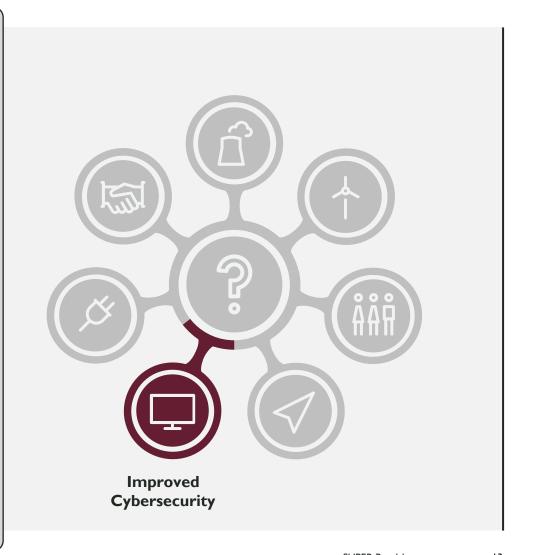
- In Vietnam and West and Central Africa, used power sector impact modeling to help utilities weigh COVID-19 response options
- In West and Central Africa, created and hosted a six-part COVID-19 recovery webinar series to help utilities navigate COVID-19 related challenges, provide capacity building sessions and a knowledge-sharing platform for utilities to exchange experiences and leading practices

BUILDING ROBUST CYBERSECURITY CONTROLS AS THE GRID MODERNIZES

Power sector and grid operators in many countries face growing cybersecurity threats from external actors as the electrical grid becomes more sophisticated and connected. The utility sector has seen an increase in security spending since 2015, when Ukraine's electric grid was hit by a cyberattack that led to a lengthy blackout for nearly 250,000 people.

As cyber risk grows, utilities, governments, and other power sector entities must proactively protect against and respond to known and emerging threats.

- Define energy security requirements and conduct baseline risk assessments to identify system vulnerabilities
- Analyze and prioritize approaches to remediating security gaps
- · Develop and implement cybersecurity solutions to improve visibility and monitoring
- Align systems and procedures with regulatory requirements and international best practices
- Build capacity for procurement and tendering of cost-effective cybersecurity solutions
- Establish and improve incident response and forensics protocols to help organizations return to normal and repair damages
- Conduct simulated exercises that replicate penetrations and attacks by malignant actors



BUILDING ROBUST CYBERSECURITY CONTROLS AS THE GRID MODERNIZES





Ways Missions can utilize SUPER for this type of project:

- · Disaster response funding
- Resiliency funding
- Digital transition priorities
- Energy independence priorities



- The USAID Energy Program in Georgia assisted the transmission system operator to upgrade two software applications to resolve system vulnerabilities and comply with new information security policies and global cybersecurity standards.
- In Ukraine, following the 2017 cyber attacks, the USAID Energy Governance, Reform and Development Activity provided the country's largest gas supplier with in-depth analysis and recommendations to strengthen cyber defenses

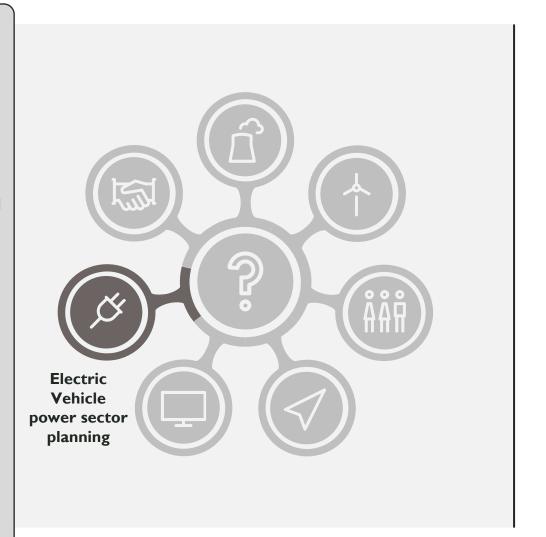


POWER SECTOR PLANNING FOR INCORPORATING ELECTRIC VEHICLES (EVS)

EVs are beginning to meaningfully penetrate developing country markets, and utilities are preparing for a future where their value goes beyond transportation, into storage and grid regulation. Further acceleration of EV adoption could help electric companies reverse or reap opportunities from three of today's biggest challenges: stagnant demand, the requirement to integrate renewable and distributed energy resources seamlessly, and the need to engage customers and interest them in new services.

While the transition to a fully electric fleet could take decades to achieve, there are growing questions about how utilities will manage their charging needs and the impact to the grid.

- Evaluating the impact of EVs as a new demand/load profile and adjusting investment and operational planning
- Working with regulator to understand how to adjust tariff schedule
- Analyzing the use of EVs for supply regularization and/or grid storage
- Facilitating three-way communication between utility, customers, and vehicles for EVs to discharge power back to grid and meet power needs
- Forecasting EV sales and modeling economic impacts of increased EV usage
- Cost-benefit analysis of building out electric vehicles charging infrastructure



POWER SECTOR PLANNING FOR INCORPORATING ELECTRIC VEHICLES (EVS)





Ways Missions can utilize SUPER for these types of projects:

- Climate Change funds
- Economic Growth programming
- Urban Development programming



Examples of USG assistance to plan for and incorporate EVs

- In Jamaica, advised the Ministry of Energy and the Ministry of Transportation to develop a common road map for electrification of transportation
- Supported the U.S. Navy in developing a comprehensive business case analysis for fleet electrification, supporting infrastructure procurement and installation, as well as alternative fuel vehicle acquisition

EVALUATING PRIVATE SECTOR OPTIONS FOR ENERGY SERVICES IN UTILITY MANAGEMENT

With the deregulation of the electric industry and increased responsibilities with growing customer bases and more complex sectors, many utilities are investigating private sector options for providing energy services including energy service companies (ESCOs).

ESCOs develop, design, build, and arrange financing for projects that save energy, reduce energy costs, and decrease operations and maintenance costs at their customers' facilities. The USAID SUPER Task Order can help with the following types of projects that Missions and counterparts might be interested in:

- Setting energy efficiency goals for the sector and designing and implementing ESCOs to help reach those goals
- Analysis of outsourcing core functions (billing/collections, loss reduction, O&M) for utility companies or facility-owners and planning/structuring modalities
- Guiding counterparts through financed energy savings projects (designing a project that meets the counterpart's needs, arranging for funding, and guaranteeing the project will generate energy cost savings to pay for the project)



EVALUATING PRIVATE SECTOR OPTIONS FOR ENERGY SERVICES IN UTILITY MANAGEMENT

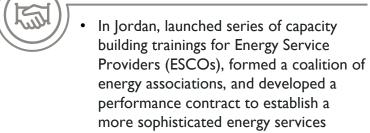




Ways Missions can utilize SUPER for these types of projects:

- Climate change programming
- Economic growth/private-sector development

Examples of USG assistance to analyze and recommend private sector options for utilities management:



industry

 Supported the U.S. Navy's Energy Savings Performance Contract (ESPC) program, including escalation rate analysis and LNG price modeling to island localities. Analysis led to an ~\$828.8M investment in energy infrastructure

ACRONYMS



ESCO	Energy Service Companies
ESPC	Energy Savings Performance Contract
EV	Electric Vehicle
COR	Contracting Officer Representative
NDC	Nationally Determined Contribution
sow	Scope of Work
SUPER	Strengthening Utilities and Promote Energy Sector Reform

