Gender Inequality in the Power Sector

80% of global water and energy utility jobs are held by men.

Women’s representation on power utility boards and leadership teams grows just 1% every 3 years.

It could take as long as 72 years to reach 40 percent women leadership in this sector.

The power sector is where the rubber meets the road for whole-of-energy system decarbonization.

As countries around the world raise their ambitions to transform their power systems and integrate higher shares of renewable energy, there is a risk that women, and the skills they can bring to bear, will be left out of the clean energy transformation.
Women in Power System Transformation

- Develop knowledge and skills on cutting-edge technical topics

- Agency-based empowerment of women to lead transformational change

- Address engrained institutional barriers to women in power sector technical and leadership roles.

- Build a support network to expand women’s access to professional opportunities

“...Becoming the first woman intern in CAISO (California Independent System Operator) from PT PLN (Indonesia) made me realize that I can do what I thought impossible.”
Fellowships at leading system operator institutions to build technical capacity

- Balance electricity supply and demand
- Integrate new technologies and resources (e.g. renewables)
- Develop forecasts and plans for the evolution of electricity grid
- Establish market rules and grid codes
- Manage and evolve electricity markets for least-cost operations
- Ensure safety and reliability of the electric grid

1. More renewable
   Growing penetration of new, variable renewables displacing conventional generation for power and increasingly grid services

2. More distributed
   Rapid deployment of DERs (solar, storage, EVs, smart-grid, etc.)

3. More dynamic
   Bidirectional flow and more varied, distributed resources causes more complex grid networks

4. More interconnected
   Country and regional grids are expanding

5. More data-intensive, more digital
   Rapidly expanding data flows and data needs for decision making and planning

Legend:
- Grid services
- Electricity
- Existing element
- Transformation element
Women in PST Partners for Technical Training, Fellowships and Internships

Founding System Operators (FSOs)

Core Team
Technical Institutes

Emerging Economy System Operators
Indonesia, Ukraine, Vietnam, India, South Africa, Tanzania, Peru, Colombia, and others
Agency-based Empowerment and Addressing Institutional Barriers

SEE Change Approach

Our approach is centered on three pillars:

**Evidence**
Build the evidence base and understanding of personal agency as a central force in human flourishing and how to foster this in individuals living in resource-poor settings.

**Practice**
Scale what works for bringing personal agency approaches to individuals, groups, and organizations.

**Innovation**
Test powerful solutions and lead innovations in research and practice to support thriving individuals and resilient communities.
Cutting-edge, Women-led Teaching Materials

Women in PST, with leadership from Imperial College London, published university teaching materials to expand access to cutting-edge technical training and support upskilling of women students and practitioners around the world.

- Designed and taught by leading women experts
- Available at no cost to universities and instructors around the world
- Easy adoption into existing curriculum
- Flipped classroom format
- Paired with motivational media resources to encourage younger women to take up high-impact power sector careers

Course Topics Made Available in 2022:

- Declining System Inertia and Dynamic Reserve Requirements
- Power System Stability with 100% Inverter-Based Resources (IBR)
- Impact of EVs on Power Systems
- Network Planning and Pricing to Support Net Zero Transition

Additional course materials will be made available in October 2023.
Advancing Gender Diversity and Inclusion in the Classroom

• Women students and faculty are under-represented at many of the university-level technical degree programs that are training the power sector workforce of the future

• Goals:
  – Expand access to high-quality technical training and cutting-edge learning materials, for university students and power sector practitioners
  – Increase the visibility of women power experts through flipped classroom delivery
  – Inspire younger generations of women to take up careers in this exciting sector by streaming Women in PST motivational videos that highlight leading women experts and opportunities in advanced power system operations
Thank You and Learn More

Website

Video: Empowering Women to Lead Systems Transformation
Strategic Workforce Development

- Workforce that can support deep decarbonisation of power systems
- Educate graduates and upskill professionals on ‘forward-looking’ topics with direct connections to system operations
- **Inaugural Teaching Agenda** identifies ~100 topics under 9 areas – prioritised by leading system operators