

Addressing the Social and Labor Dimension of **Energy Transitions**

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AGENDA

Addressing the Social and Labor Dimension of “Energy Transitions”

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Energy Transition for all



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EGAT's Perspective on Labor Challenges



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Reskilling and Upskilling the Power Sector Workforce



Energy Transition for all

National-level Direction

National-level Direction

“Energy Transition for all”

Advancing Infrastructure

to support a secure energy transition

Gearing up for clean energy

- Hydro-floating Solar Project
- Small Modular Reactor (SMR)
- Hydrogen

Strengthening grid reliability

- Grid Modernization
- Flexible Power Plant
- Grid Flexibility
- Renewable Energy Forecast Center
- Demand Response Control Center
- Virtual Power Plant



Building Awareness

for the energy transition

EGAT Learning Center



Fostering Engagement

toward a low-carbon society and national greenhouse gas reduction

Demand-side Management

- Energy Saving Equipment (The No.5 Energy Efficiency Label)
- Energy Saving Building
- Energy Saving Habit



Project-level Implementation

Hydro-Floating Solar Hybrid Project at Sirindhorn Dam

“Clean energy that ensures reliability, delivers affordability, and advances value for society and the environment”

Stable Clean Energy

- Hybrid solar–hydropower project with Energy Management System (EMS) and Weather Forecast System for reliable, round-the-clock generation.

Affordable

- Lower electricity costs using existing reservoir space and shared hydropower infrastructure.

Socially Responsible

- No impact on community farmland
- Community consultation and engagement through public hearings
- Local job creation during construction
- Enhancing community income through tourism at the Nature Walkway

Environmentally Friendly

- No environmental impacts
- Comprehensive environmental monitoring including air quality, water quality, ecosystem health, and underwater ecological studies, conducted in collaboration with external agencies
- Reduction of up to 47,000 tons of CO₂ emissions per year

The success of this pilot project will be carried forward to EGAT's other Hydro-floating Solar Hybrid initiatives.

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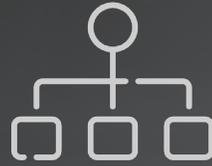
EGAT's Perspective on Labor Challenges

EGAT's Perspective on Labor Challenges

From a
Traditional
Utility
Workforce



Conventional-
Based Expertise



Static Structure



Operator Mindset



Top-Down
Management

To a
“Smart
Transition-
Ready
Workforce”

Renewable &
Digital Workforce



The future demands expertise in digitalization, AI, IoT, smart grids, and renewable energy technologies

Agile Organization



Redesign organizational models for agility such as energy solution businesses and cross-functional collaboration

Innovator &
Green Mindset



People must move beyond routine operations to create new value through open innovation, collaboration, and sustainable co-creation

Shared Leadership
& Stakeholder Trust



Leaders must communicate the “Why we change” narrative clearly and inspire people to see transition as opportunity, not threat

EGAT's Workforce Transition

Accelerating People in Clean Energy - EGAT's Workforce Evolution

EGAT's Workforce Transition



Short & Medium Term

Innovate Power Solutions for Energy Transition



Long-Term

National Pillar of Power Security Innovation for Green and Sustainable Energy



“Smart Transition-Ready Workforce for Innovative Power”

“National Workforce of Green Energy Leaders”

Focus Area	Action
<p>Strategic Workforce & Mobility Review and manage manpower framework aligned with EGAT positioning</p>	<ul style="list-style-type: none"> Review and update the manpower framework Conduct manpower forecasting Build a succession and manpower mobility plan
<p>Agile Organization & Job Remuneration Design agile structures and rewards that drive real performance</p>	<ul style="list-style-type: none"> Review and redesign the organization structure Modernize job architecture and pay system Implement a Change Management Framework
<p>Healthy & Safety Life Foster a positive, safe, and energized environment where people thrive</p>	<ul style="list-style-type: none"> Launch proactive health and safety initiatives Develop mental health and resilience programs Improve workplace design Conduct safety culture campaigns
<p>Future-Ready Mindset Cultivate a collaborative, innovative, and sustainable mindset</p>	<ul style="list-style-type: none"> Embed core values and behavior into everyday work Promote a stakeholder-centric mindset Build a future-minded culture through continuous learning
<p>Employee Capacity Development Develop future-ready skills and leadership to lead the new energy era</p>	<ul style="list-style-type: none"> Create an Employee Development Roadmap Establish leadership & technical training. Roll out Future Skills Roadmap (digital, renewable, AI, ESG) Encourage knowledge transfer and communities of practice

Expected Outcome in 2030

<p>Optimal workforce size, structure, and skills maximize productivity and mission readiness</p>	<p>Sustainable talent pipeline supports Thailand's long-term energy security</p>
<p>Agile structure and clear roles enable faster, more efficient decisions</p>	<p>Performance-based rewards drive motivation and innovation</p>
<p>Safe, healthy, and supportive environment sustains high performance</p>	<p>Well-being culture enhances engagement and quality of life</p>
<p>Values strengthen everyday work practices</p>	<p>Values-driven mindset shape a trusted workforce ready to power Thailand's sustainable future</p>
<p>Advanced technical, digital, and leadership capabilities enable clean-energy transformation.</p>	<p>EGAT workforce becomes a national force of innovation and sustainable growth</p>

Reskilling and Upskilling the Power Sector Workforce

Reskilling and Upskilling the Power Sector Workforce for the Energy Transition

The global energy sector is shifting from fossil-based to low-carbon, renewable, and digital systems, driven by Net Zero goals, smart grids, and ESG priorities. This transformation turns utilities from **Power Producers** into **Energy Solution Providers**. Therefore, EGAT must prepare employee workforce through **Reskilling**, **Upskilling**, and **Certification programs** to meet future energy challenges.

Challenges for the EGAT Workforce

- Renewable integration & grid flexibility
- Digitalization & automation
- Energy market liberalization
- ESG and sustainability requirements

Key Challenge

Workforce must be digitally fluent, sustainability-minded, and cross-disciplinary.



Reskill employees for new skills

EGAT has implemented reskilling programs to **enhancing workforce with new knowledge and skills beyond their existing expertise**. The initiative focuses on transitioning from conventional power generation to emerging technologies such as renewable power plants, energy storage systems (ESS), and electric vehicle (EV) technologies.



Upskilling for Enhanced Performance

EGAT strengthens workforce competencies **beyond existing skills** by developing new job-related capabilities and adapting to emerging energy technologies, thereby **improving performance** and supporting future career growth.



Elevating Workforce Capabilities through Certified Competence

EGAT, in collaboration with the Thailand Professional Qualification Institute (TPQI), **develops energy sector occupational standards** and certifies workforce competencies in Energy & Renewable Energy and Electric Vehicles. Through the **EGAT Professional Certification Center** and ongoing development programs, employees are equipped with the skills required by the labor market and prepared for future industry challenges.