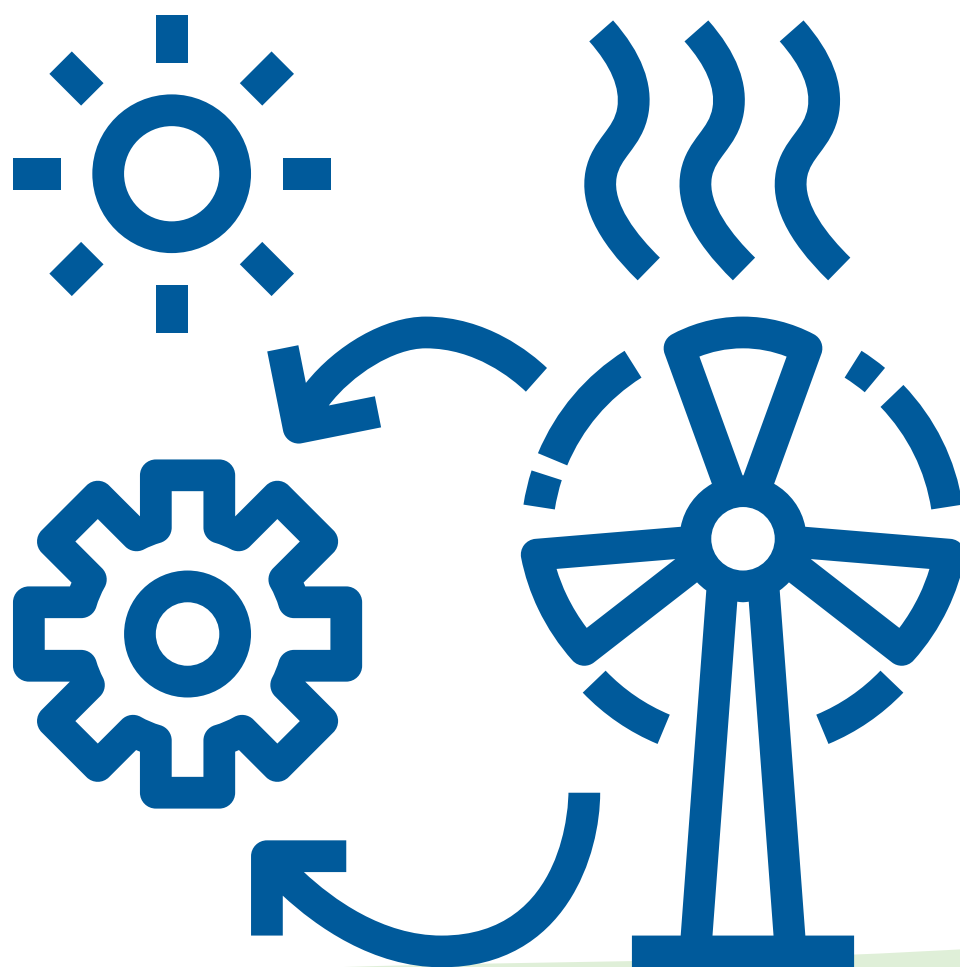


ENERGY SECTOR WORKERS IN TRANSITION:

Strategies for a collaborative
approach in Thailand

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Abstract

In the wake of the climate crisis and the need to achieve global climate goals, the transition to renewable energies needs to happen at a faster pace, including in Thailand. The shift will lead to substantial changes in the fossil energy industry. In order to ensure that no one is left behind and to protect the well-being of affected workers and their families, a Just Energy Transition is crucial. The workers of Thailand's largest energy producer, EGAT (Electricity Generating Authority of Thailand) feel uncertainty about their employment situation, which requires swift and well-informed long-term strategies by their employer and related authorities. It is further recommended that government agencies, private organizations, civil society, and research institutions collaborate in the ongoing transition, ensuring it is sustainable, fair and inclusive.

About this publication

This paper presents the essential findings and recommendations of an in-depth study in Thai conducted in 2021. The study is inspired by the evolving discourse of a just energy transition in Thailand and highlights its critical dimensions, with a specific focus on the electricity generation sector. It explores the pivotal role labor unions play in shaping organizational strategies for job restructuring and gathers insights from union members on the ongoing transition towards sustainable energy practices. The researchers relied on data collected from various channels, interviews with stakeholders, a structured questionnaire and focus group meetings. The focus group meetings integrated a variety of perspectives, ranging from EGAT executives to female and special contract workers. The study has been shared with trade unions, environmental organizations, the EGAT management and policy makers, to highlight the need for decisive action and a collaborative approach. The objective of the English publication is to make the content accessible to international stakeholders who advocate a just energy transition.

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1 | INTRODUCTION

As the specter of climate change looms large on the global stage, the imperative of a sustainable energy transition has never been more urgent. In Southeast Asia, Thailand has also been part of the ongoing dialogue regarding this pressing global challenge. The existential threat posed by climate change transcends borders, beckoning nations worldwide to unite in a collective call to action. International frameworks like the United Nations' Sustainable Development Goals (SDGs) and the historic Paris Agreement on Climate Change, forged in 2015, underscore the shared commitment of countries to combat the perils of global warming.

Thailand, in harmony with the international community, has meticulously woven these pivotal agreements into its national policy tapestry. Notably, the 20-Year National Strategy (Strategy 5) and successive iterations of the 11th National Economic and Social Development Plan prominently feature strategies that align with the tenets of the SDGs and the Paris Agreement. Concrete initiatives, such as the Nationally Determined Contributions (NDCs) and the Power Development Plan (PDP), stand as tangible manifestations of Thailand's plans to mitigate climate change.

In this era of sustainable energy practices, the seismic shift from fossil fuels to renewable energy sources casts a transformative shadow over labor markets. As we grapple with the imperative of collective action against climate change, a potent rallying cry emerges from the global labor movement: "there are no jobs on a dead planet." This transition ushers in a new era of both opportunities and challenges. It flings open the doors to fresh employment prospects within the burgeoning renewable energy sector, while simultaneously posing substantial hurdles for industries historically reliant on fossil fuels, including the fossil fuel energy sector and petroleum-dependent transportation industries.

This intricate shift raises pressing questions, including the implications of economic restructuring on job stability and the well-being of affected workers and their families. Acknowledging these challenges, the concept of a "just transition" has ascended to prominence, underscoring the imperative of equitable economic and social outcomes

as societies navigate this transformative journey. The incorporation of just transition principles into the Paris Agreement represents a watershed moment, emphasizing not just the imperative of job creation, but the importance of meaningful, decent work opportunities for all during this pivotal transition.

This paper summarizes the essential findings and recommendations of an in-depth study in the Thai language which has been conducted in 2021 in order to facilitate the policy dialogue among important stakeholders in Thailand. Its intention is to make the content accessible to an international audience. It is firmly rooted in the evolving discourse of a just energy transition, dives into its critical dimensions, with a specific focus on Thailand's electricity generation sector—a sector accountable for a staggering 36 percent of the nation's total carbon dioxide emissions in 2022 (Ministry of Energy, Thailand). Our spotlight is set on the Electricity Generating Authority of Thailand (EGAT), a commanding force responsible for 31 percent of the nation's electricity generation in 2023 as reported by the Ministry of Energy.

With a magnifying glass held over EGAT's energy transition plans and a keen eye on their employment implications, this investigation simultaneously scrutinizes the strategies EGAT employs to support its workforce amid these transformative changes, evaluating their alignment with the principles of a just transition. Furthermore, the paper explores the pivotal role labor unions play in shaping organizational strategies for job restructuring and gathers invaluable insights from union members on the ongoing transition towards sustainable energy practices.

In the sections that follow, we will delve deeper into the conceptual framework underpinning the research, elucidate the methodology employed, dissect Thailand's electricity production landscape and EGAT's workforce, assess the potential impacts of the energy transition on workers, scrutinize EGAT's practices through the lens of the just transition concept, and culminate with a set of actionable recommendations designed to usher in a more equitable and sustainable energy future.

2 | CONCEPTUAL FRAMEWORK AND METHODOLOGY

In the pursuit of a just energy transition, active engagement of all stakeholders is paramount. This includes employers, labor organizations, consumers, the general public, and government entities. Such collective engagement serves as the bedrock for informed deliberation, decision-making, and the equitable distribution of benefits. The International Labour Organization (ILO, 2015) articulates a just transition framework that places a central focus on the promotion of “decent work” at every juncture of the production chain. In the realm of a green economy, policies must encompass economic, environmental, social, educational, and skill development dimensions to facilitate an equitable transition for all.

Within this framework, the upholding of key principles and fundamental employment rights is non-negotiable. These include the rights to association, collective bargaining, the elimination of child labor, the abolition of forced labor, and non-discrimination. Additionally, a spotlight must be cast on creating opportunities for productive employment and income generation, ensuring that all job seekers have the opportunity to apply their abilities in the workforce. Equally critical is the assurance of social protection for workers, whether through public or private means. Moreover, social dialogue, negotiation, consultation, and information exchange among government representatives, employers, and workers should be embedded in all relevant contexts. The initiation of such transformative change necessitates a collective commitment to sustainable goals and values, employing social dialogue as the conduit to formulate policies and practices at every level.

A just transition yields tangible outcomes, including investments in job creation to expand employment opportunities in low greenhouse gas-emitting sectors, the safeguarding of workers in the fossil fuel industry through wage support, job retention, new job creation, and retirement provisions. It ensures that workers enjoy social protection and that their human rights are safeguarded. Community and labor involvement in transition planning is indispensable, as is the preservation of community traditions. Encouraging the promotion of innovative technologies for energy transformation, as well as the transition of impacted jobs into sustainable positions, is integral to this paradigm.

While the World Benchmarking Alliance (WBA) conducted evaluations of just transitions for 180 large global companies in 2021, focusing on oil and gas companies, electricity generation companies, and automotive manufacturers, our study adopts a distinctive approach. WBA’s evaluation relies on publicly available information, whereas our research leverages primary data sourced through a comprehensive methodology. We collected data from various channels, including documents, interviews with relevant stakeholders, a structured questionnaire that was developed specifically for this purpose, and a series of focus group meetings.

Our initial contact with EGAT in relation to this study was established through discussions with the EGAT labor union. We informed them about the concept and the importance of a “just transition” and requested their support. Given the challenges posed by the Covid-19 pandemic, we asked the EGAT labor union to help us distribute online questionnaires among their members and to invite members and EGAT executives to participate in focus group meetings. In total, we organized six online focus groups, including one with EGAT executives and four others in different regional work locations. The final focus group was specifically designed for women and special contract workers, ensuring that diverse perspectives were considered.

Throughout the study, EGAT also played a crucial role by supporting our data collection efforts and facilitating access to relevant stakeholders within the organization. After analyzing the data collected from surveys, interviews, and focus groups, we presented the findings of the study to the labor unions and submitted the comprehensive report to EGAT. This collaborative effort allowed us to provide a thorough evaluation of EGAT’s just transition efforts, shedding light on nuances and perspectives that may elude scrutiny when relying solely on publicly accessible data.

3 | THAILAND'S ENERGY PRODUCTION PLAN AND EGAT'S WORKFORCE

As of the year 2023, Thailand boasted a robust electricity generation capacity of 53,761 megawatts, a commendable stride towards meeting the nation's growing energy demands. The actual production stood at 51,626 megawatts, while consumption clocked in at 34,862.5 megawatts, indicating an electricity production exceeding consumption by 35 percent. This electricity was distributed across various sectors, with the goods and services production consuming 46 percent, households 25 percent, and commerce 24 percent.

Thailand's energy generation landscape has witnessed a noteworthy diversification among providers, signifying a shift toward greater private sector involvement. The Electricity Generating Authority of Thailand (EGAT) played a pivotal role, contributing 31 percent of the total electricity generation. Independent Power Producers (IPP) held a substantial 32 percent, Small Power Producers (SPP) accounted for 17 percent, imports and exchanges represented 12 percent, and Very Small Power Producers (VSPP) contributed 8 percent. This transformation aligns with policies aimed at promoting competition within the energy sector.

Energy generation in Thailand is derived from many sources. Natural gas is the predominant source, accounting for 55 percent of the energy mix, followed by coal and lignite at 15 percent, and imports at 13 percent. Renewable energy sources make up 12 percent of the energy mix, while hydropower contributes 4 percent, and oil plays a minor role at 1 percent.

Central to Thailand's energy security and growth strategy is the Power Development Plan (PDP), harmoniously aligned with the National 20-Year Strategic Plan (2018-2037). According to the PDP 2018 Rev. 1, it was projected that by the culmination of 2037, total electricity production capacity would soar to 77,211 megawatts. This projection allocated 53 percent of the capacity to natural gas, 11 percent to coal/lignite, and a significant 36 percent to renewable energy sources. The renewable energy category encompasses power plants at 19 percent, energy conservation at 6 percent, cross-border hydropower at

9 percent, and domestic hydropower at 2 percent. The upcoming Power Development Plan (PDP), slated for approval in 2023, aligns with worldwide energy trends by emphasizing the adoption of clean energy sources. Embedded within the National Energy Plan, Thailand is progressing towards the goal of attaining carbon neutrality by 2050. The nation is committed to cutting its greenhouse gas emissions to zero by significantly enhancing its Nationally Determined Contributions (NDCs) with a target of reducing emissions by 40 percent. This ambitious initiative is supposed to ultimately lead Thailand to achieving net-zero greenhouse gas emissions by the year 2050. Moreover, Thailand sets its sights on achieving at least 50 percent of its electricity production from clean or new renewable energy sources by the year 2037.

Thailand's energy transition strategy is a multifaceted approach encompassing the development of a smart grid infrastructure, digital communication systems, and digitalization to bolster modern energy management. Market and pricing mechanism reforms are underway to bolster renewable and decentralized energy sources. Concurrently, legal and regulatory adjustments are being made to align with evolving energy needs. The promotion of public participation in both energy consumption and production forms a pivotal element of this transformation. Initiatives are also underway to bolster electricity generation to support the adoption of electric vehicles in the country.

In its history, EGAT stood as the singular entity responsible for electricity generation in Thailand, overseeing all facets from planning to operation. This necessitated a substantial and diverse workforce. EGAT's steadfast commitment to energy security led to workforce expansion, reaching a zenith of 27,000 employees. However, shifts in government policy, including the introduction of auctions for private electricity producers, resulted in overstaffing at EGAT. Consequently, EGAT implemented a policy known as "Retire One Thousand, Hire Only a Hundred," owing to its status as a state enterprise, which precluded layoffs. Fast forward to October 31, 2021 and EGAT's workforce in the power generation sector numbered 16,350 employees, a notable decrease from 18,870 employees in 2019 and

17,641 employees in 2020. A gender distribution analysis revealed a majority of male employees (74.45 percent). The age composition indicated a significant cohort in the 50-60 age range (40.18 percent). Employees aged 31-40 accounted for 25.89 percent, those aged 20-30 made up 19.55 percent, and the 41-50 age group constituted 14.39 percent. In terms of educational qualifications, 49.33 percent held vocational diplomas, 40.81 percent had bachelor's degrees, and 9.86 percent had educational credentials below a vocational diploma. A significant proportion occupied regional positions (63.27 percent) compared to central roles (36.73 percent). Notably, the majority held permanent positions (95.44 percent), with a smaller percentage on special contracts (4.56 percent).

EGAT's workforce was delineated into three primary groups: the main strategy group (730 employees), the main business group, comprising five distinct job categories, including power generation (4,737 employees),

fuel (1,211 employees), transmission (3,815 employees), related business (1,748 employees), and power plant and renewable energy development (1,119 employees). The support group encompassed administrative (2,048 employees) and finance and accounting (811 employees) roles. Of particular note, the power generation category comprised nearly 29 percent of the workforce, primarily holding vocational diplomas. Meanwhile, the transmission category accounted for 23.33 percent and similarly saw a prevalence of vocational diploma holders. Among these categories, the administrative group boasted the highest percentage of bachelor's degree holders (10.69 percent).

This insight into Thailand's energy landscape and EGAT's workforce composition serves as a foundational understanding for delving deeper into the implications of the energy transition on workers and EGAT's approaches to achieving a just transition.

4 | THE IMPACT OF EGAT'S ENERGY TRANSITION ON ITS WORKFORCE

Our comprehensive analysis of the survey of 110 EGAT employees, recruited through anonymous online responses, offers valuable insights into the profound impact of EGAT's energy transition on its workforce. These insights shed light on employees' understanding of climate change, their support for renewable energy, job satisfaction, concerns, and the vital role played by EGAT's labor union.

Understanding Climate Change and Support for Renewable Energy

A significant 73 percent of EGAT employees exhibit an admirable understanding of climate change, as demonstrated by their ability to correctly answer climate-related questions with an accuracy rate of at least three out of five questions. Furthermore, a substantial 81 percent of respondents express unwavering support for EGAT's transition to renewable energy sources within the organization. Their rationale centers around the diminishing reliability of fossil fuels due to climate-related volatility, the environmental harm caused by coal-fired power plants, and the declining cost of renewable energy technologies. However, 19 percent of employees harbor reservations about this

transition, citing concerns about energy security and high production costs, envisioning a gradual, potentially two-decade-long process.

Employee Satisfaction and Concerns

EGAT employees, on the whole, report high job satisfaction, with notable scores in terms of job stability (7.14 out of 9 points), gender equality (7.04 points), and job interest (7.03 points). Notably, a significant 51 percent of employees have no inclination to resign or retire early, while 36 percent remain uncertain, and 13 percent are inclined to retire early or leave their current positions. However, these content employees express substantial concerns regarding the transition to renewable energy, rating their apprehension at 5.56 out of 9 points. Their worries span various facets, including income impacts (46.6 percent), reduced benefits (41.8 percent), relocation (37.3 percent), job changes (25.5 percent), layoffs (22.7 percent), unemployment (15 percent), and the need for new skills.

Desire for Organizational Support and Critical Improvement Areas

EGAT's workforce articulates a strong desire for organizational support during this period of transition, emphasizing key areas such as job security (48.6 percent), skill development (17.3 percent), and early retirement programs (16.4 percent). Additionally, employees highlight other factors (10.9 percent) that include transparent job promotions, post-retirement benefits, and enhancing the organization's competitiveness. The most critical areas requiring improvement, as voiced by employees, encompass technology knowledge (83.6 percent of respondents), skills related to renewable energy work (60 percent), English language skills (30 percent), and identifying supplementary careers (21.8 percent).

EGAT's Transition Strategy and Labor Union Involvement

EGAT's strategic shift towards renewable energy, electric vehicles, and energy storage systems has been met with an overall positive acknowledgment from employees, earning a score of 3.63 out of 5. Employees also rate the organization relatively high for its support plans (3.40) and impact mitigation strategies (3.49). There is optimism regarding career development (3.42), skills related to renewable energy (3.59), and emphasis on developing existing employees' skills before hiring new ones (3.53). However, concerns persist regarding the vague nature of these new businesses, the potential need for highly

specialized workers, and the likelihood that existing employees may not readily transition into these roles. While EGAT employees generally express confidence in the organization, they have concerns about their limited involvement in decision-making processes related to energy transition plans (2.75) and the development of the organization's job structure (2.69). The organization's responsiveness to employee input receives the lowest score among other aspects (2.70), indicating a need for greater transparency and participation.

Labor Union's Role and Concerns

EGAT's labor union, representing approximately 12,000 employees or 73.39 percent of the workforce, engages with management through meetings and emphasizes the importance of safeguarding employee welfare and job security during the transition. The union calls for skill development opportunities and retirement programs for employees unable to adapt to the organization's changing needs. It also highlights challenges stemming from unclear national energy policies and the protracted nature of the energy transition.

In conclusion, our assessment underscores certain shortcomings in EGAT's energy transition, particularly in terms of stakeholder consultation, impact assessment, and mitigation planning. This study supplements the WBA's assessment by offering another, slightly more positive and more differentiated perspective on the Just Energy transition.

5 | CONCLUSIONS AND RECOMMENDATIONS

Amidst uncertainty stemming from the evolving nature of government energy policies, the state-owned enterprise, EGAT is taking proactive steps to venture into renewable energy businesses, preparing for the inevitable transformation. Approximately 81 percent of EGAT employees express their alignment with the impending energy transition. Their support is grounded in concerns about changing weather patterns, dwindling fossil fuel resources, and the detrimental environmental consequences of coal-fired power plants. Moreover, the cost reduction in renewable energy technologies has bolstered their enthusiasm. However, challenges related to waste disposal and pollution control, particularly

concerning batteries and solar panels, must be addressed. Conversely, 19 percent of employees remain opposed to the energy transition, primarily due to apprehensions about energy security and the potential burden of high production costs on consumers. These individuals are also concerned about the prospect of job relocations, changes in job roles, demotivation, unemployment, and the need for skill adjustments.

Despite its status as a state-owned enterprise with a policy against layoffs, EGAT employees exhibit moderate concerns about the impact of the energy transition on the employment situation. These concerns primarily revolve

around income stability and reduced benefits. Factors such as potential relocations and job role changes, coupled with the fear of job loss, contribute significantly to employee anxiety. A portion of the workforce may contemplate early retirement or remain uncertain about their future career paths.

Recommendations for Policymakers and Organizations

EGAT's journey toward an equitable energy transition unveils broader challenges concerning energy transition policies within the Thai government. Lessons drawn from the EGAT case emphasize the importance of swift adaptation to the impending energy transition. Delaying this transition is not a viable option due to the pressing environmental urgency.

EGAT faces a significant challenge in accurately predicting its production levels, which affects its ability to plan power plant operations efficiently and creates uncertainty among its workforce about their future employment situation. EGAT should prioritize the development of long-term strategies that account for various scenarios and contingencies. This strategic approach will provide EGAT with a roadmap to navigate uncertainties and make well-informed decisions while adhering to government policies. EGAT and related agencies should develop well-defined transition plans that address workforce needs, including job creation, skill development, and social protection. Additionally, EGAT and labor unions could draw inspiration from international best practices and adapt them to their specific context, with unions actively participating in shaping and implementing transition plans while raising awareness among members.

From a holistic economic perspective, policymakers must prioritize the following strategies to ensure a smooth and inclusive transition:

Skill Development: Focus on enhancing the skills of workers, particularly targeting vulnerable groups such as SMEs, women, youth, rural labor, and informal workers.

Labor Market Policies: Implement proactive labor market policies grounded in accurate labor market forecasts and skill matching, offering opportunities for upskilling and reskilling.

Social Protection: Guarantee robust social safety nets for workers facing negative impacts, encompassing income support, healthcare, and basic services.

Data and Information Systems: Develop accessible and precise labor market data systems to facilitate rapid impact assessment.

Industry Engagement: Promote collaboration between the public and private sectors to minimize redundancy and maximize support in all dimensions.

Union and Labor Force Participation: Actively involve labor unions in planning and executing transition strategies, advocating for worker rights, and raising awareness among members.

In conclusion, the findings from this study underscore that the energy transition presents opportunities and challenges that require swift and well-informed responses. It is crucial for government agencies, private organizations, civil society, and research institutions to engage collaboratively in this transformation, upholding principles of fairness, inclusivity, and sustainability to ensure the participation and benefit of all stakeholders, leaving no one behind.

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