2.2 Energy

Management

The Electricity Generating Authority of Thailand (EGAT) has established numerical energy reduction targets for power plants to continuously raise energy efficiency levels. This is supported by the preparation of energy management reports according to prescribed procedures, alongside regular performance tracking.

In 2025, power plants and operating units within the reporting scope set clear energy reduction targets. For example, the Mae Moh Power Plant set a specific electrical energy consumption target of 8.64 megawatt-hours per gigajoule produced, while the Chulabhorn Dam Hydroelectric Power Plant set a energy reduction target of 15 percent. These targets are supported by energy conservation measures and workflow improvements aligned with their designated goals.

EGAT evaluates progress in energy reduction through After Action Review (AAR) meetings, which form an integral part of the energy management audit and certification process. These meetings serve as a platform to review performance against energy reduction targets, exchange lessons learned, and identify areas for improvement to support continuous monitoring and energy efficiency development.

Energy Audits to Improve Energy Performance

EGAT conducts annual energy management audits and certification activities to support the energy management processes of designated factories and controlled buildings. The audits assess energy performance, verify compliance with applicable requirements, review energy

consumption data, and identify opportunities for energy efficiency improvement across facilities and operations.

Audit results are documented in official reports and used as supporting documents for the submission of energy management reports to the Director-General of the Department of Alternative Energy Development and Efficiency (DEDE). The audit process also supports the evaluation of energy conservation measures and continuous performance improvement. In 2025, the implementation covered power plants and facilities within the defined reporting scope.

EGAT Measures and Actions

- EGAT has installed solar rooftop systems on its office buildings and on-site facilities, such as coffee shops within dam areas, to support energy reduction by generating renewable electricity for self-consumption, with an installed capacity of approximately 9.025 kilowatts.
- This project helps reduce reliance on the power grid, lowers greenhouse gas emissions, and improves energy efficiency. Performance is monitored and reviewed through an energy management system, comparing energy consumption before and after implementation to evaluate the effectiveness of the measure.
- EGAT has implemented energy efficiency improvements across its buildings and various systems by adopting higher-efficiency technologies and innovative approaches to reduce energy consumption. These measures include upgrading lighting systems to LED, installing high-efficiency chillers, and retrofitting air conditioning systems.
- Energy efficiency principles are integrated into the design and overhaul of equipment and systems, supported by continuous energy tracking and control via monitoring systems and operational tools. Although not direct research and development (R&D), these efforts reflect

the application of innovative methods and continuous improvement to raise energy efficiency standards.

- EGAT provides energy conservation training for its employees to build knowledge, understanding, and capacity in energy management. The program covers various courses, such as Internal Energy Auditor and Energy Controller for Buildings and Factories, delivered through both online and classroom training. These training sessions are conducted continuously, with clearly defined participant groups and schedules, to promote efficient energy use and encourage energy-saving behaviours in daily operations.