



17 JAN, 2025

## New law makes energy efficiency a reality

The Star, Malaysia



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On the first day of the year, a new law to steer the nation on the course of energy efficiency came into effect. The Energy Efficiency and Conservation Act 2024 (EECA) is a law under the Energy Transition and Water Transformation Ministry and was passed in June last year. It represents one of the key components of the National Energy Transition Roadmap (NETR), the national initiative towards carbon neutrality by 2050.

For a start, the law applies in Peninsular Malaysia and in the Labuan Federal Territory in East Malaysia, excluding the regions of Sabah and Sarawak. Its comprehensive scope covers the industrial, commercial and residential sectors and replaces the Efficient Management of Electrical Energy Regulations 2008, which is now revoked.

In the EECA, the industrial and commercial sectors are governed as either energy consumers of 21,600 gigajoules (GJ) or more annually, or office buildings with a gross floor area (GFA) of 86,111 sq ft (8,000 sqm) or more. These will be required to audit and report their energy consumption within a stipulated period and comply with requirements for energy conservation.

### Office buildings

There are differences in compliance methods between energy consumers and office buildings. For the latter, so long as the GFA falls within the prescribed size, the person in charge of the buildings, be it the owner or building manager, is required to apply and obtain from the Energy Commission (EC) a Building Energy Intensity (BEI) label and display it at a conspicuous part of the building. The BEI will have information on the building's energy intensity performance and a corresponding star rating. It is to be renewed annually under the condition that the building maintains a minimum star rating of two out of five.

"The BEI serves as a tool to promote energy efficiency in buildings by providing transparent and measurable information about their energy performance. It helps stakeholders like building owners, occupants, and policymakers make informed decisions about energy use and sustainability," said EC chief executive officer Datuk Abdul Razib Dawood.

To facilitate compliance, the EC has issued the Guideline on Ascertaining A Building and The Energy Intensity Performance of a Building. In it are details about how to determine whether the office building falls within the law's purview, methodology to calculate energy intensity performance and information on each star rating.

To ensure BEI renewal, buildings are encouraged to have an energy management system, the functions of which cover,

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Effective Jan 1, EECA regulates energy consumption and conservation



Furthermore, the manufacturers and importers are also required to register with the EC. Failure to register and to obtain the certification will disallow them from distributing the appliances.

The purpose of the certification is to enforce a standardised energy performance for appliances as stipulated in EECA, said Abdul Razib.

"The minimum energy performance standards (MEPS) under the EECA are set to ensure that appliances meet specific energy efficiency standards to reduce energy consumption and improve sustainability. MEPS are part of the regulatory framework to drive energy efficiency across various sectors, including residential, commercial and industrial," he said.

Penalties for offences relating to certification and registration range from a fine of up to RM50,000 to a jail term of up to two years.

### Fostering an energy-conscious economy

Abdul Razib also said that the law offers a multifaceted return on investment for all stakeholders by fostering a culture of energy-conscious practices across all sectors.

"EECA not only promotes long-term energy security and sustainability but also directly benefits individuals and businesses through reduced energy costs and increased operational efficiency.

"Buildings which implement an EnMS will enjoy cost savings, access to green financing and certification for energy-efficient buildings, which enhance market value. The disincentives of non-compliance can involve penalties, higher utility rates for excessive consumption and fines for failing to meet energy performance standards. The law balances both rewards and penalties to promote long-term energy efficiency," he said, adding that stakeholders should start taking steps towards implementing the requirements.

"To prepare for the EECA, affected parties should start by thoroughly understanding the Act's requirements and conducting a gap analysis to identify areas needing improvement. Appointing an energy manager, performing an energy audit, and implementing an EnMS are critical first steps. Stakeholders should budget for necessary upgrades and staff training, and leverage on available incentives to offset costs. Staying informed on updates and engaging with suppliers or contractors ensures holistic compliance and long-term energy savings," he recommended. ⚡



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the case where the building fails to comply with the minimum energy intensity performance, the EC will require an energy audit and energy improvement plan. These will have to be conducted and prepared by an EC-registered energy auditor.

"Buildings should implement an energy management system (EnMS) to optimise energy use, reduce costs, and comply with the EECA. EnMS helps track energy consumption, identify inefficiencies, and drive continuous improvement," said Abdul Razib.

### Industries and other trades

For energy consumers of 21,600GJ and more yearly, the EECA has more elaborate requirements to enforce the practice of energy efficiency. Firstly, they must appoint an energy manager registered with the EC, who collects and analyses energy consumption data of the energy consumer. Next, an EnMS has to be implemented under the monitoring of the energy manager. Third, an energy efficiency and conservation report is to be prepared by the energy manager and submitted to the EC annually. In addition, the EC may require the energy consumer to conduct and submit an energy audit report.

The elaborate stipulations

are further detailed in several guidelines, namely Guideline(s) on Ascertaining Energy Consumer, Function and Duties of Registered Energy Manager, Energy Management System, Energy Audit Report, and Energy Efficiency and Conservation Report.

The EC is also empowered to request from energy suppliers such as Tenaga Nasional, Gas Malaysia and Petronas Gas information on their customers' energy usage to ascertain their correct categorisation under the law, as an office building can also be simultaneously an energy consumer at any point in time and is expected to comply with regulations for the latter if that's the case.

Offences under the EECA, such as non-compliance with requirements for BEI, energy audit and reporting, will be fined between RM20,000 to RM50,000.

### Residential

On the other hand, the residential sector will be regulated indirectly via the labelling requirement on selected electrical appliances (see graphic). This labelling requirement is in the form of a certificate of energy efficiency and energy efficiency rating label, both of which are to be obtained by appliance manufacturers and importers.