



ESR GROUP LIMITED
(Stock code: 1821)

**ENERGY AND EMISSIONS MANAGEMENT
POLICY**

OWNER: GROUP ESG

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1. **INTRODUCTION**

- 1.1 The Energy and Emissions Management Policy (“**Policy**”) sets out the commitment by ESR Group Limited and its subsidiaries (collectively, “**ESR**” or the “**Group**”) to manage energy consumption and Greenhouse Gases (“**GHG**”) emissions based on best management practices within its business operations.
- 1.2 Energy consumption in buildings accounts for approximately 40% of global energy demand and constitute a large operational expenditure for real estate operations. This is projected to increase with growing needs for heating and cooling caused by extreme weather events.
- 1.3 Energy can be classified as direct or indirect. Direct energy is the energy produced and consumed by burning fuel on site, for example heating on-site. Indirect energy is the energy produced by external utilities suppliers and consumed within the property, for example electrical grid supply.
- 1.4 GHG emissions from human activities is primarily responsible for the intensification of greenhouse effect and climate change. Within the real estate industry, buildings contribute to approximately 40% of global energy related carbon emissions: 28% from operational emissions, from energy needed to heat, cool and power them, and the remaining 11% from materials and construction¹.

2. **ENERGY CONSUMPTION**

- 2.1 The understanding of energy consumption within an asset can help identify areas for potential energy reduction or increase energy efficiency. The Group and all its Business Units (“**BUs**”) shall develop appropriate processes to monitor, collect, and report their energy consumption in absolute and/or intensity to meet both the BUs’ and the Group’s reporting requirements.
- 2.2 BUs shall set energy efficiency targets and develop energy management plans to achieve them. The targets should have a definite timeline to be achieved (e.g., 3 years or longer).

¹ [World GBC: Advancing Net Zero](#)

2.3 The Group strives to improve its energy efficiency by adopting the following methods, where applicable):

- (a) Improve building design – Conscientious planning of the building’s design and layout with climate-responsive features would help increase natural ventilation and improve thermal comfort. Examples include orientation considerations, using of skylight windows, shading from trees, green roofs and vertical green walls;
- (b) Enhance building-related equipment – Identify high energy consumption installations and evaluate their respective energy management opportunities. Examples include upgrading of heating, ventilation and air-conditioning equipment, lift modernisation, and using energy efficient lightings;
- (c) Utilise smart building technology – Adopt smart building technology where asset data is gathered and transformed into actionable insights. Examples include implementing advanced building management systems, software and sensors to automatically adjust temperature and lighting according to occupancy, as well as smart sub-meters to provide real-time data of energy usage;
- (d) Increase adoption of renewable energy – We aim to maximise the generation of renewable energy from our properties’ roof space and pursue potential business initiatives which focus on the funding and managing of green energy;
- (e) Encourage energy efficient practices – Collaborate with occupants to raise awareness and adoption of energy conservation measures. Examples include promoting green lease partnerships, and organising green outreach initiatives and campaigns;

3. GHG EMISSIONS MONITORING

3.1 The Group adopts the principles recommended by the GHG Protocol Corporate Accounting and Reporting Standard², which seeks to provide a decarbonisation framework to measure and manage GHG emissions.

² The [GHG Protocol Corporate Accounting and Reporting Standard](#) provides requirements and guidance for companies and other organisations preparing a corporate-level GHG emissions inventory.

- 3.2 BUs shall develop appropriate processes to monitor and report their GHG emissions (in tonnes) and intensity (e.g., tonnes per square metre) for Scope 1, 2 and 3, where applicable.
- (a) Scope 1 – Refers to direct GHG emissions from owned or controlled sources. Examples include emissions from on-site combustion (e.g., burning of coal) and fleet fuel consumption.
 - (b) Scope 2 – Refers to indirect GHG emissions from energy purchase and use. Example includes emissions from grid electricity produced by utility provider.
 - (c) Scope 3 – Refers to all other indirect emissions from peripheral activities related to the asset. Examples include emissions from business travel and employees commuting to work.
- 3.3 In line with the Group’s Net Zero Carbon (“NZC”) strategy, ESR shall set interim GHG emissions reduction targets in accordance with science-based approach. BUs shall establish their respective GHG emissions reduction targets in line with the Group’s NZC strategy and develop GHG emissions management plans to achieve them where applicable.

4. GHG EMISSIONS REDUCTION

- 4.1 The transition to a low-emissions economy is a global effort where the scale and pace are continuously changing. The Group is committed to support the decarbonization process towards carbon neutrality through adopting best practices to reduce GHG emissions in its business operations.
- 4.2 The Group supports the below best practices relating to the construction and management of assets which include, but not limited to:
- (a) Implementing efficiency in construction material design such as the use of modular components with standardised shapes and connections;
 - (b) Reusing building materials that is reversible such as concrete or structural steel from demolition;

- (c) Switching from high-emission materials to sustainable ones such as the use of timber;
- (d) Using low-carbon cement developed with alternative materials to potentially reduce embodied GHG emissions;
- (e) Installing onsite renewable energy systems, such as solar photovoltaics or solar thermal system;
- (f) Purchasing electricity generated from renewable sources or low polluting sources such as wind turbines or natural gas; and
- (g) Procure Renewable Energy Certificates (“RECs”) to mitigate GHG emissions and support renewable energy development.

4.3 The Group aims to increase green building certifications across all markets and accelerate in green financing to support continued business growth and align our portfolio towards facilitating transition to a low-carbon economy.

5. ENERGY MANAGEMENT SYSTEM CERTIFICATION

5.1 Refer to Page 9 for an example of an energy management system certified by ISO 50001.

DOCUMENT REVISION HISTORY AND VERSION CONTROL

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1.1	Added Para 5: Energy Management System	Group ESG	23 Oct 2023

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CERTIFICATION OF REGISTRATION

The Governing Board of
QAI Certification Pte Ltd

Hereby grants to:

APM PROPERTY MANAGEMENT PTE LTD

Registration No. QAIC/SG/23052

*(hereby called the registered company) the right to be listed in the Directory of Registered Companies in respect to the services listed below. These services shall be offered by the Registered Companies at or from only the address given below in accordance with the **Energy Management System** in compliance with*

ISO 50001: 2018

Address to which this certificate refers:

**5, Temasek Boulevard, #12-01 Suntec Tower Five,
Singapore 038985**

Approved Scope to which this certificate refers:

Property Management Services

Certificate Issue Date: **21st August 2023**

Date of Initial Registration: **21st August 2023**

Certificate Valid until: **20th August 2026**

subject to adherence to the agreed on-going audit program, successful endorsement of certification following each audit and compliance with QAICPL regulations. This Certificate of Registration is granted subject to the Regulations approved by the Review Committee.



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