

Advancing Our Path To Net Zero: IOI Properties Group's Solar Decarbonisation Strategy



Knowledge Partner:



Solar Panel at IOI Mall Puchong

Advancing Our Path to Net Zero

IOIPG is taking steps to enhance sustainability by expanding its solar installations and strengthening energy-efficiency measures across its operations.



IOI Resort City

Who We Are

Industry: Property Development

Founded: 2007

Headquarters: IOI City Tower 2, IOI
Resort City, 62502 Putrajaya,
Malaysia

Employees: 3426

IOI Properties Group Berhad (IOIPG) is a leading property developers, with a diverse portfolio across Malaysia, Singapore, and China. Guided by the IOI Sustain Roadmap 2030, the Group integrates sustainability into its developments through a focus on climate action, resource efficiency, green infrastructure, community well-being, and biodiversity.

The Group is committed to reducing environmental impact, enhancing operational resilience, and supporting both national and global sustainability objectives. Key initiatives focus on energy efficiency, renewable energy adoption, and sustainable township development, demonstrating IOIPG's dedication to responsible growth while delivering long-term value for communities and stakeholders.

Sustainability Vision

IOI Properties Group (IOIPG) is committed to driving a low-carbon transition across its townships and commercial assets. Guided by the IOI Sustain Roadmap, the Group focuses on three core pillars which are renewable energy adoption, energy efficiency, and responsible resource management. Key initiatives include:

- Solar PV expansion to reduce Scope 2 emissions and strengthen energy resilience.
- Energy efficiency programs across townships and commercial assets.
- Responsible resource management to minimise environmental impact.

Aligned with the 13th Malaysia Plan (RMK13) and recent national budgets, which emphasise accelerating renewable energy, scaling solar deployment, improving efficiency, and increasing private-sector participation, IOIPG's efforts support Malaysia's long-term sustainability and net-zero goals. By integrating climate action into development, operations, and stakeholder engagement, IOIPG delivers lasting value while advancing its Net Zero ambition.

Opportunity

The property and construction sector significantly contributes to national electricity consumption and greenhouse gas (GHG) emissions. Recognising this, IOIPG identified an opportunity to decarbonise its operations by integrating solar photovoltaic (PV) systems across its townships and commercial assets.

This initiative aimed to lower the operational carbon footprint and Scope 2 emissions, cut operational costs, reduce dependence on grid electricity, and showcase leadership in sustainable urban development and climate action by adopting low-carbon technologies that support national climate goals.

Objectives

To advance its low-carbon transition and strengthen long-term environmental performance, IOIPG's solar PV initiative is guided by the following key objectives:

1. Net Zero & Decarbonisation

- Support the Group's net zero ambitions by increasing the share of on-site solar generation to reduce externally purchased electricity and lower carbon emissions, contributing to broader climate targets.

2. Operational Cost Efficiency

- Enhance long-term energy cost efficiency by generating renewable electricity on-site, reducing energy cost and mitigating exposure to fluctuating utility prices.

3. Awareness & Advocacy

- Enhance stakeholder awareness and support for clean energy and actively engaging customers, tenants, business partners, and the wider community on the advantages of adopting solar solutions.

4. Alignment with UNGC Principles 7–9

- Demonstrate responsible environmental stewardship by adopting precautionary approaches, promoting environmental responsibility, and scaling clean, energy-efficient technologies.

Challenges

As IOIPG expanded its solar PV programme across various townships and commercial assets, several key challenges emerged:

1. High Upfront Capital Investment

Large-scale solar PV installations require significant initial funding, which can be a barrier to immediate deployment across all assets.

2. Integration with Existing Infrastructure

Many buildings were not originally designed to accommodate solar systems, requiring careful evaluation to ensure safety, compatibility, and optimal solar positioning.

3. Limited Stakeholder Awareness

Tenants, initially had limited understanding of how solar PV works and its benefits, which require continual engagement and awareness building.

Solutions

To address these barriers and maintain momentum in its renewable energy journey, IOIPG introduced several practical solutions:

1. Phased Implementation & Cost Analysis

IOIPG introduced a phased rollout focusing on high-impact sites, supported by internal cost-benefit assessments to optimise financial planning.

2. Comprehensive Technical Assessments

Feasibility studies, structural checks, and solar exposure analyses were conducted to ensure seamless integration of solar systems without disrupting building operations.

3. Awareness & Visibility Initiatives

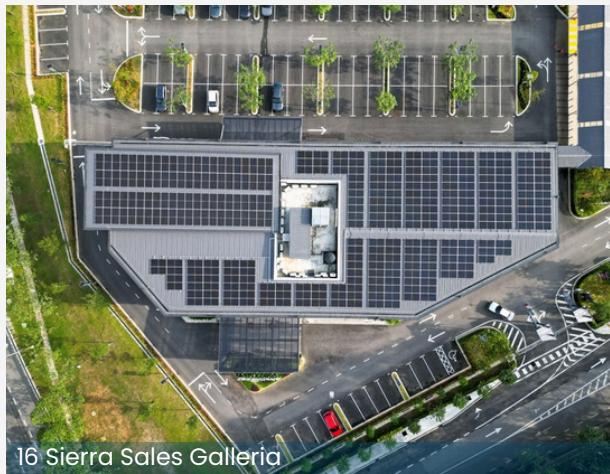
Solar generation was made visible through stakeholder touchpoints, including IOIPG's website, newsletters, and sustainability report. These initiatives help provide stakeholders with clear information on the use and impact of renewable energy.

Actions & Implementation

Solar PV systems were progressively installed across IOIPG's major townships and commercial assets, including:

- IOI City Mall & IOI City Mall 2
- IOI Mall Puchong
- IOI Mall Kulai
- Palm Garden Golf Course
- IOI Mall Xiamen
- Puteri Mart
- AMIGO Clubhouse @ 16 Sierra
- 16 Sierra Sales Galleria
- 16 Sierra Fresco
- Bandar Puteri Puchong Sales Galleria
- Bandar Putra Kulai Sales Galleria

These installations supply renewable energy for common-area. Across the Group's townships, solar-generated energy is also utilised to power amenities and selected urban park facilities.



Flagship Milestone: IOI City Mall Solar PV Energisation

As part of its renewable energy expansion, IOIPG successfully energised the large-scale rooftop solar installations at IOI City Mall marking one of the Group's most significant clean energy achievements to date. The ceremony was officiated by YB Nik Nazmi Nik Ahmad, former Minister of Natural Resources, Environment and Climate Change (NRECC), further highlighting the project's contribution to Malaysia's national energy transition and the strength of public-private collaboration.



This milestone demonstrates IOIPG's technical capability in implementing large-scale solar solutions, its commitment to scaling renewable energy across its portfolio, and its ability to deliver meaningful decarbonisation outcomes across diverse property assets.



[References : Energising of IOI City Mall Solar PV System](#)

Enablers For Sustainability Performance And Impact



Leadership & Culture

Strong leadership commitment from the Board and management drives IOIPG's low-carbon transition. A sustainability-led culture reinforces the Group's Net Zero ambition, ensuring renewable energy adoption and energy efficiency are prioritised across all business segments.



Partnership & Stakeholder Engagement

Active collaboration with regulators, renewable energy experts, NGOs, academia, tenants, and communities supports compliance, innovation, and shared value creation, while strengthening trust and collective impact.



ESG Data

Robust monitoring systems track energy performance, emissions, and efficiency gains, enabling data-driven decision-making, performance benchmarking, and identification of decarbonisation opportunities.



Resources

Prudent financial stewardship, phased capital deployment, and access to green financing mechanisms enable sustainable investments while maintaining financial discipline and long-term resilience.



Digital Transformation

Deployment of smart building technologies, automation controls, and digital energy management systems enhances operational efficiency, building performance, and accelerates the transition to low-carbon operations.



Process

Structured processes ensure solar PV deployment, energy optimisation, and efficiency measures are consistently implemented across townships and commercial assets.



Strategy

Clear sustainability roadmap aligned with the Group's Net Zero ambitions integrates low-carbon and renewable energy considerations into business strategy, ensuring sustainability supports long-term value creation.



Governance

Strong governance framework provides oversight, accountability, and strategic direction through Board-level supervision, Sustainability Steering Council guidance, and management-led implementation supported by subject matter expertise.



Supply Chain & Procurements

Sustainability requirements are embedded within procurement practices, encouraging responsible sourcing, supplier engagement, and adoption of green materials and technologies aligned with environmental and social standards.



People

Capacity building through awareness programmes, and educational initiatives empowers employees, tenants, and communities to support sustainability goals and drive change across the value chain.

Alignment UNGC

- Principle 7** Precautionary environmental approach
- Principle 8** Promote environmental responsibility
- Principle 9** Encourage environmentally friendly technologies

Impacts & Results

1. Reducing Grid Dependence and Cutting CO₂ Emissions

By generating electricity from on-site solar PV systems, IOIPG reduced its reliance on grid-supplied power and avoided the CO₂ emissions that would have resulted from conventional fossil fuel-based electricity generation. This shift toward renewable solar energy contributed to lower overall carbon output and greater energy autonomy for the group.

- **Total installed capacity of 12.69 MWp.**
- **Produced 9,902 MWh of solar energy, representing 5% of total electricity savings in FY2025.**
- **Achieved 7,582 tCO₂e reductions in FY2025.**

UN- SDGs Alignment

7 AFFORDABLE AND CLEAN ENERGY

Support a precautionary approach to environmental challenges: Conducted feasibility studies and piloted installations before scaling across portfolios.

8 DECENT WORK AND ECONOMIC GROWTH

Undertake initiatives to promote greater environmental responsibility: Expanded renewable energy adoption and internal awareness campaigns across assets.

9 INDUSTRY, INNOVATION AND INFRASTRUCTURE

Encourage the development and diffusion of environmentally friendly technologies: Deployed smart solar systems, digital dashboards, and energy monitoring tools across facilities.

13 CLIMATE ACTION

Expanded solar PV deployment, reduced Scope 2 emissions, and strengthened energy efficiency measures to support Malaysia's low-carbon transition.

17 PARTNERSHIPS FOR THE GOALS

Fostered collaboration with renewable energy partners such as Tera Va Sdn. Bhd. and engaged government stakeholders to scale clean energy initiatives and drive collective climate progress.

This demonstrates the tangible benefits of solar power in lowering reliance on grid electricity and cutting carbon emissions, reinforcing the company's commitment to practical, results-oriented renewable energy implementation.

2. Strategic Partnerships Accelerate Impact

Collaboration with Tera Va Sdn. Bhd. strengthened IOIPG's solar rollout by providing technical expertise and reliable system implementation. This partnership enabled the successful energisation of major sites, including IOI City Mall, helping IOIPG scale renewable energy adoption more effectively.

3. Reduced Carbon Footprint

IOIPG's solar PV systems generated 9,902 MWh of clean energy

Avoiding 7,583 tCO₂e in emissions

- The solar PV initiative contributed to a 15% reduction in Scope 2 carbon emissions intensity**
Our Target,
- 18% reduction in Scope 2 carbon intensity for Property Investment by FY2028**

This measurable reduction in Scope 2 emissions strengthens the Group's progress toward its Net Zero aspiration and reinforces its commitment to climate action.

4. Increased Visibility of Renewable Energy Adoption

The expansion of solar PV across flagship assets, including IOI City Mall, IOI Mall Kulai, and multiple IOI Sales Galleries across Malaysia has increased public visibility of IOIPG's clean energy efforts. These installations serve as educational and engagement touchpoints for tenants, visitors, and communities.

5. Strengthened Energy Resilience

Highlight

Installed a total solar PV capacity of 12,690 kWp.

With 12,690 kWp of installed capacity, the Group benefits from a reliable supply of clean energy, reducing reliance on the grid and lowering exposure to electricity tariff fluctuations.

By diversifying its energy mix, IOIPG further reduces dependence on conventional electricity sources and improves its ability to manage energy demand effectively.

Collectively, these measures enhance long-term energy resilience, supporting secure, efficient, and sustainable operations.



Looking Ahead

IOIPG will continue expanding its use of clean, renewable solar power to reduce reliance on non-renewable energy sources. Rooftop solar systems already installed across key assets including IOI City Mall, IOI Mall Kulai, IOI Galleria at Bandar Putra Kulai, 16 Sierra Amigo Clubhouse, and IOI Rio at Bandar Puteri Puchong demonstrate the Group's ongoing commitment to decarbonisation.

Currently, all new residential developments incorporate solar-ready infrastructure to support future installations, while the Group accelerates plans to equip all IOI Sales Galleria with solar PV systems in line with its clean energy and low-carbon ambitions.

IOIPG will also continue strengthening its low-carbon development approach by integrating energy-efficient design, passive cooling, low-emission materials, and smart building technologies into upcoming projects. These measures help reduce operational carbon emissions and enhance resource efficiency across the portfolio. In support of this, the Group targets achieving Green Building Index (GBI) Gold certification for all ongoing and future developments of owned and managed properties, further institutionalising high environmental performance.

Collectively, these efforts reinforce IOIPG's pathway toward Net Zero and support alignment with the UN Global Compact's 10 Principles, Malaysia's national energy transition agenda, and rising stakeholder expectations.

Contact



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**ADVANCING OUR PATH TO NET ZERO:
IOI PROPERTIES GROUP'S SOLAR DECARBONISATION STRATEGY**