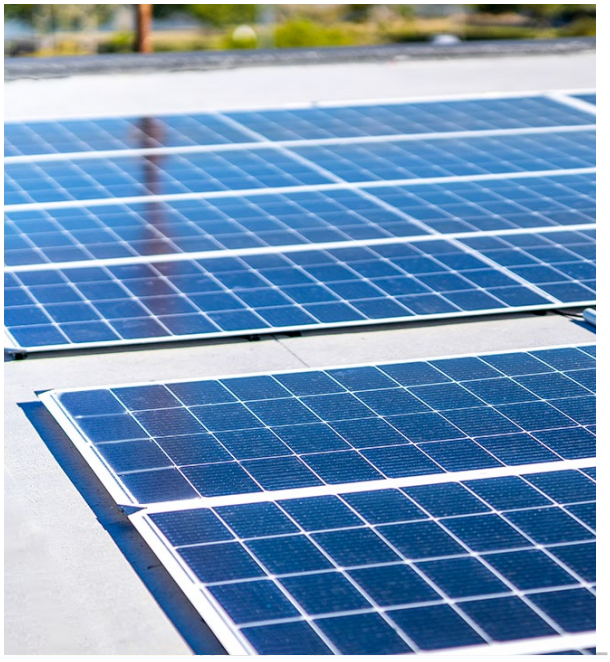
GoodWe's Galaxy Panels: The No-Penetration Solution for Concrete Roof Integrity & Leak-Free Solar Technology

Background:

The Gold Coast project involved a 6-floor apartment building seeking to enhance its energy efficiency while maintaining the structural integrity of its concrete roof. With rising energy costs and the demand for sustainable solutions, the property management aimed to implement a solar energy system that could deliver significant cost savings and reduce the environmental impact. The management's objective was to find a solution that would not compromise the building's aesthetics or structural stability.

Client Name: AM Solar
Location: Gold Coast, QLD, Australia
System Size: 30kW
BIPV Models: Galaxy Series (335W)
Commissioning Period: July 2024



Challenge:

The key challenge was to install a solar energy system on the building's concrete roof without compromising its structural integrity. Traditional solar panel installations often require drilling, which can lead to potential leaks and structural damage over time.

Additionally, the construction team needed a solution that could be installed quickly to meet project timelines and allow for early operational efficiency. The management also sought a system that could be seamlessly integrated with the building's design, ensuring it complemented the architectural vision and sustainability goals of the new development.

Solution:

GoodWe, in collaboration with local partners, successfully implemented its Galaxy Series solar panels using an innovative no-penetration installation technique. This method involved employed a gluing technique along with ventilation tubes to create a space gap between the panels and the roof surface, preserving the roof membrane and eliminating any risk of leakage. The lightweight and frameless design of the Galaxy panels also minimized dust accumulation along the edges, enhancing their long-term efficiency. This method allowed for a rapid installation process, completed in half the time compared to traditional methods, ensuring the project remained on schedule.

The solar system now powers the building's swimming pool and communal areas, significantly reducing energy expenses. With a turnkey solution that is more cost-effective than traditional installations, the project boasts a projected payback period of two years. The robust construction of the Galaxy panels, featuring 1.6mm tempered glass, ensures increased resistance to hail and severe weather conditions, guaranteeing long-term durability and reliability.

Environmental effect:

Carbon Neutral Index (30 Years):

48,921kWh	805tons	7540
Annual average output	Carbon emission reduction	Equivalent trees

> ***"We are thrilled to have successfully implemented this cutting-edge solar solution on the Gold Coast. Our Galaxy panels exemplify advanced solar technology, offering an exceptional choice for residential buildings seeking to enhance energy efficiency without compromising structural integrity. The innovative no-penetration installation technique showcases our commitment to pioneering solutions that preserve building integrity while maximizing energy output. We look forward to partnering with more residential and commercial clients to deliver sustainable energy solutions that drive both financial and environmental benefits."***
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> said Apollo Chai, Sr. International Business Development Director BIPV.

About GoodWe BIPV Solutions:

GoodWe, established in 2010, stands as a world-leading PV inverter manufacturer and smart energy solution provider. GoodWe BIPV Solutions is the PV Building Materials Business Unit of GoodWe, dedicated to advancing PV building materials to the public. Its BIPV products show great strengthes on swift and hassle-free installation, unhindered architectural styles, active electrical safety protection in all scenarios and comparable building lifetime, better than traditional PV materials.