

Powering Fiji

Urban solar holds the key to sustainable energy transition



Fiji is already facing the impacts of climate change, and its energy sector faces challenges stemming from its small market size, high susceptibility to extreme weather events, and dependence on fossil fuels.

The Fijian economy is also enjoying a post-pandemic boom, but high living costs and the potential for electricity price hikes have left the country in need of innovative solutions to meet growing energy demand. Despite these unique challenges, Fiji stands poised for transformation.

As the first nation in the world to ratify the Paris Climate Agreement, Fiji has a 20-year plan to achieve their commitments. The country aims to generate all energy from renewable sources by 2030, including solar, wind, storage, geothermal, marine, biomass, and biofuel.

While the Government of Fiji has set a clear ambition to move to clean energy and the need for private sector investment is acknowledged, there are many challenges which need to be

overcome. Nearly 40 per cent of Fiji's energy is derived from diesel and heavy fuel oil. In urban areas, burgeoning populations are driving demand for electricity, fuel and transport. Renewable energy products are still in their nascency in Fiji, and there are a range of financial, regulatory and institutional factors which have led to low uptake by the private sector and households.

MDF works with pioneering renewable energy firms willing to navigate these challenges and pilot commercial models that can increase the uptake of renewable energy solutions. This involves overcoming barriers to uptake, increasing the awareness of the benefits of adoption and minimising the cost of customer acquisition for these businesses.

The successful adoption of renewable energy requires a thorough understanding of the demand, costs and benefits, challenges, and opportunities involved in accessing clean energy solutions. MDF and solar energy business Solar Hub are working together to assess these complexities in Fiji. This collaboration aims to support Solar Hub to better target their products to households and businesses, increasing uptake and supporting Fiji to achieve its renewable energy targets.



Assessing consumer awareness and demand

In 2023, MDF partnered with Solar Hub to assess urban demand and incentives for investing in solar solutions.

"Together, we've conducted a comprehensive market research initiative to understand the awareness levels and constraints hindering the adoption of rooftop solar energy among urban households and businesses in Fiji," explained Founder and Managing Director of Solar Hub, Yogesh Chand.



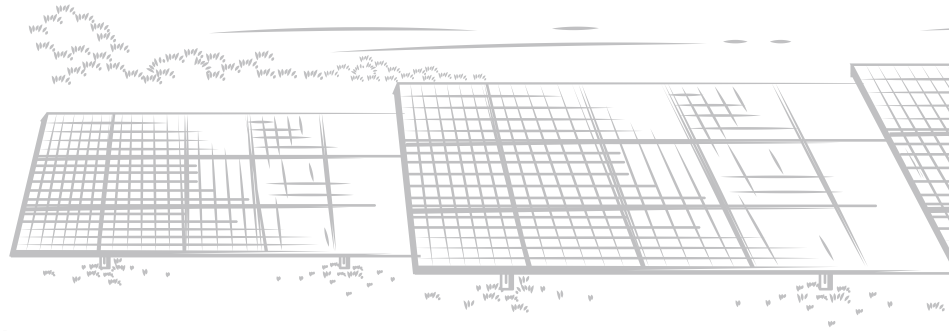
Our partnership with MDF focuses on understanding the unique needs of urban Fijians. Solar energy isn't just an expense; it's an investment in sustainable and cost-effective power.

The first step of the market research was to interview urban households and businesses, to determine how well they understood the costs, benefits and financing options relating to solar solutions, as well as to gauge their willingness to pay.

Early findings from the interviews showed that nearly 60 per cent of urban household interviewees were interested in adopting solar technologies, particularly in areas that experienced frequent power outages. Businesses also viewed solar as a cost-effective solution for reducing high electricity bills and a reliable backup power source.

However, the interviews also revealed limited awareness of the companies offering small-scale systems in Fiji and little understanding of the costs, benefits or availability of financing options. Following the interviews, Solar Hub and MDF will conduct an online survey to collect further feedback.

"The results of the research will help us to design the right solar packages, marketing campaigns and financial products for this market segment. This is expected to increase adoption of rooftop solar solutions and reduce Fiji's energy-related greenhouse gas emissions," said Yogesh.



The business case for solar investment

In addition to the survey, Solar Hub independently conducted a pilot study, installing a 154kw rooftop solar system at a service station complex in Nadi. Findings from the pilot initiative will be used by Solar Hub as proof of concept that businesses benefit from substantial long-term savings by investing in solar.

By switching to solar, it's projected that the service station will save FJD1.3 million (AUD 890,000) over 25 years (the length of the product warranty) and receive a return on investment within three and a half years.

While large-scale projects remain crucial to Fiji's goal of achieving 100 per cent renewable energy by 2030, the MDF and Solar Hub partnership supports decentralised solutions. Solar Hub will use the survey results to create suitable solar system packages for households and businesses in urban areas, which could increase the number of people using solar energy. This would reduce electricity bills and reliance on the national power grid, benefiting consumers in these regions. Encouraging businesses and

households to invest in solar energy is a practical step toward a greener, more economically viable energy landscape in Fiji.



I truly believe the people can do more to curb the negative impacts of climate change and that is the vision my company upholds. Our goal is to enhance the accessibility of sustainable energy to households and businesses. With every home or business, we help in converting to solar in Fiji, we bring ourselves closer to fulfilling Fiji's sustainability objectives.

Yogesh Chand,
Founder and Managing Director of Solar Hub



Before installing solar, the company incurred an average monthly bill of **FJD11,000 (AUD7,500)**. After switching to solar, the company's average bill (over a 30-day period) was reduced by **FJD6,500 (AUD4,400)**, equating to an estimated annual reduction of FJD78,000 (AUD53,200) over one year.

