

SUCCESS STORIES

FIJI SETS AMBITIOUS TRANSPORT TARGETS



▶ As Fiji seeks to meet ambitious targets on lowering emissions, the South Pacific island nation is working to electrify its greenhouse gas (GHG) intensive transport industry.

Data from the country's Ministry of Economy shows that transport accounts for 65% of carbon emissions in Fiji.

Under its Low Emissions Development Strategy (LEDS) Fiji has committed to the electrification of its largely fossil-fuel driven land transport sector by 2030.

The Fijian Government is in the process of incorporating this vision into its revised National Energy Policy (NEP) for 2020 to ensure it encapsulates necessary emission reduction transitions needed for Fiji's transport sector.

However, the transition to electrification in the sector is in its infancy. With very few electric vehicles on the country's roads today, there are no commercial charging stations and only a few pilot charging points for carts at universities.

Government endorses GGGI study

Recognizing the need to push forward with the electrification of the sector as it aims to meet its LEDS targets and Paris Agreement commitments, the government has endorsed two

studies produced by GGGI, which look at possible transport electrification on Viti Levu island home to over 80% of Fiji's population.

The studies examined the effects on the electricity grid under various scenarios for the electrification of the transport sector and increased use of electric vehicles, including infrastructure needs, impact on government revenues, electricity generation and the national grid, as well as technology.

Once adopted, the recommendations within the studies will pave the way for concrete e-mobility actions.

GGGI forecasts that electrification of the sector can progress quickly and points to the recent success of government measures to try and promote the use of hybrid vehicles, which were exempted from import duties in 2015.

"Since then, there has been a big rise in the use of hybrid vehicles in Fiji. The way Fiji adopted hybrid vehicles is the way we envisage electric vehicles being adopted here as well, given there is an enabling environment," explains Ulaiasi Butukoro, GGGI's Program Officer in Fiji.

GGGI's studies have identified locations where charging stations could be most effectively set up to help develop infrastructure, including in wealthier suburbs where GGGI expects electric vehicles to be adopted quickly. Households could also have charging points installed with just a minimum of change to their homes.

Replacing older buses with greener ones

The government is hopeful that any electrification will extend beyond light vehicles which make up the majority of vehicles in Fiji – to larger vehicles.

Government research shows that public transport has a central role to play in Suva, Fiji's capital and home to roughly a third of the country's population. Buses are the most popular form of public transport in Suva. However, many of these buses are old and emit high levels of GHGs. This has prompted the government to adopt a national policy to replace older public transport buses with greener, more efficient vehicles.

But as Butukoro points out, while targeting the land transport sector is a way of potentially reducing Fiji's GHG emissions, the increased demand for power as the number of electric vehicles rises could present problems.

"Part of the studies involved looking at the way the extra electricity for electric vehicles would be generated. Reducing fossil fuel use in the transport sector would not necessarily result in a net reduction of emissions if less renewables are considered in the power generation mix moving forward," says Butukoro.

"The energy mix for power production in Fiji is around 50% renewable sources and 50% fossil fuel in the form of diesel. The share of renewables used to be higher, but hydro is not available as much now as it used to be, because of changing weather patterns due to climate change," he says.

The Fijian government will need to have a plan to increase the share of renewable energy to compensate for the rise in demand for electricity in order to avoid an increase in the use of fossil fuels to generate that electricity.

"If renewables are not available to meet the higher demand, then more diesel will be used," says Butukoro.

Currently, the electrification of Fiji's transport sector is in the early stages with plans for the sector's transformation being drawn up.

All eyes on the National energy policy 2020

GGGI will continue to work closely with the government in the coming years to help realize those plans. The inclusion of the studies' recommendations in the renewal of the National Energy Policy in 2020, also supported by GGGI, will be another important milestone.

"But going forward we will be working with the government as the transport sector is electrified over the next decade. We will be providing support as concrete actions specified in the LEDs strategy regarding electrification are implemented," says Butukoro.