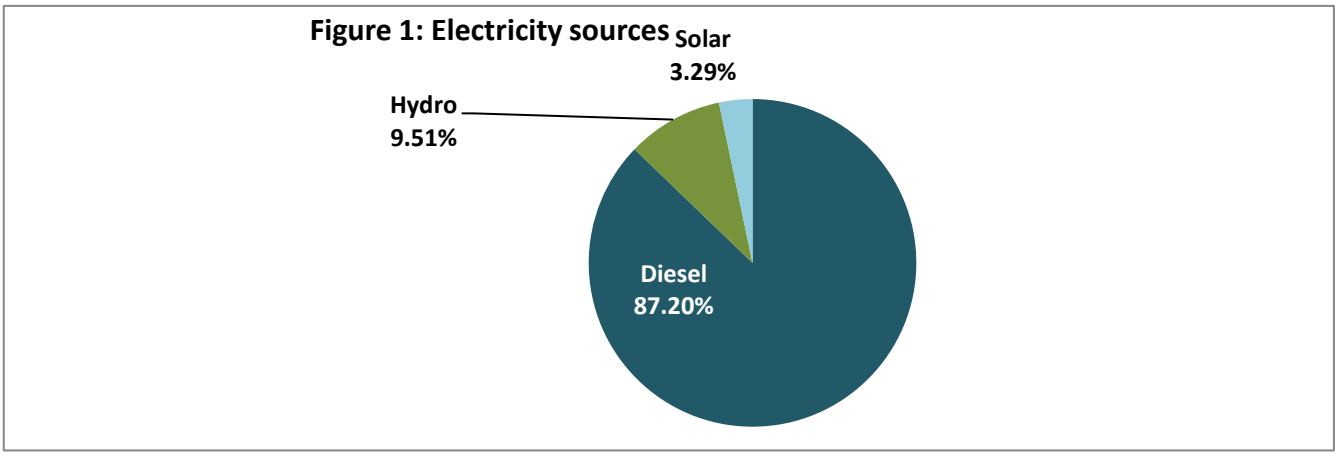
VANUATU MONTHLY ENERGY MARKET SNAPSHOT OF MARCH 2023

Overview of the Month

This report issued by the Utilities Regulatory Authority (the Authority) provides an electricity market update in Vanuatu for the month of March 2023. The presented information and data oare only for electricity utilities regulated by the Authority. During the month, the energy market experienced a decrease in renewable energy contribution to total power produced, due to zero (0) wind production. UNELCO Engie's monthly adjusted electricity tariff for the month decreased by 1 % from February 2023 tariff. The total power produced, and power sold decreased from February 2023 total, by 22.62 % and 8.6 % respectively.

Electricity Source

Figure 1 below presents the different types of energy sources used by regulated utilities in Vanuatu during the reporting month. The main energy source was diesel combustion that contributed 87.20 % of the total electricity produced. The hydro plants at Santo and Maewo (Talise) generated an aggregate of 9.51 % of electricity, solar panels on Efate, Luganville, Lakatoro and Lenakel contributed an aggregate of 3.29 %, while 0% was contributed from the windmills on Efate.



Electricity Generation by Area

The top part of Table 1 below shows the total energy production from all available energy sources and the total quantity of diesel used to generate electricity in each service area during the month. The bottom part of the table reveals the respective contributions in % from the available energy generation sources in each service area[1]. Litres of diesel used for the Tanna and Malekula concession areas are estimated due to unavailability of data.

Table 1: Generation Mix by Electricity Grid

Mar-23	Port Vila	Luganville	Malekula- Lakatoro	Tanna	Ambae	Sola	Maewo	Malekula - Lorlow & Wintua	Port Olry
Total kWh Produced	5,372,663	1,340,886	128,058	125,789	13,226	5,915	3,336	-	13,897
Litres of diesel used	1,296,480	92,782	34,968	37,706	4,865	3,285	-	-	4,926
Diesel %	95.80%	48.79%	98.96%	100.00%	100.00%	100.00%	0.00%	0.00%	100.00%
Copra oil %	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Hydro %	0.00%	48.79%	0.00%	0.00%	0.00%	0.00%	100.00%	0.00%	0.00%
Wind %	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Solar %	4.19%	0.12%	1.04%	0.00%	0.00%	0.00%	0.00%	N/A	0.00%

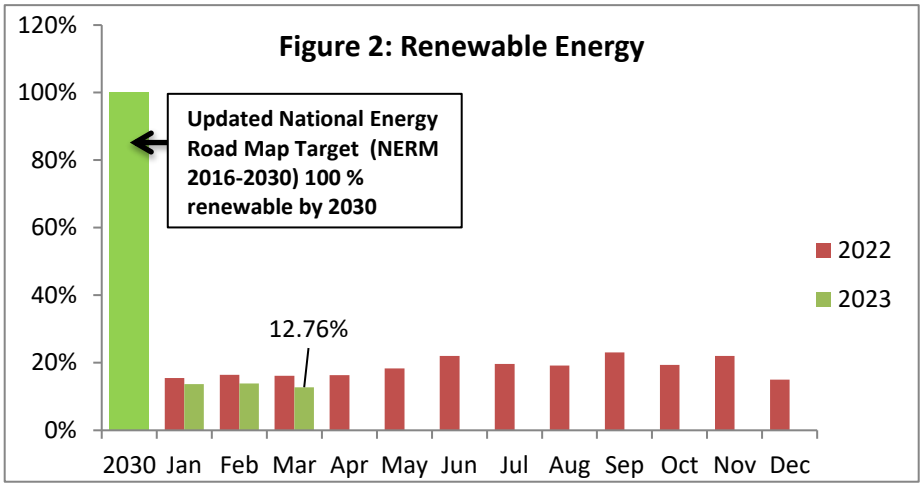
N/A = The Malekula- Wintua and Lorlow data were not available at the time this report was issued.

[1] Due to unavailability of data from the Department of Energy, the Tanna- Lenakel and Malekula -Lakatoro data were projected following trends of the reporting month in previous years. The Wintua and Lorlow (operated by the Winuta/ Lorlow Electrical Cooperative) data was omitted due to unavailability of data and there are not enough data to project on, given that it is a newly established concession area.

Renewable Energy Generation

Figure 2 on the right presents the portion of electricity generated from renewable energy (RE) sources[2] during the month in Vanuatu. The 2022 renewable contributions can be compared with the year-to-date renewable proportions for (YTD) 2023. The graph shows a decrease in RE contribution when comparing the month under review for this year to that of the previous year and it was due to the decrease in solar production during the month due to two category 4 cyclones during the month.

Figure 2 provides an overview on the status of 'Vanuatu's renewable electricity generation' in concession and mini-grid areas in comparison to the NERM's[3] target.



Number of customers

Table 2 outlines number of customers in different electricity network in Vanuatu (See notes for more information).

Table 2: Customer numbers per electricity network area

Jan-23									
Electricity Network	Port Vila	Luganville	Tanna*	Malekula*	Port Olry	Talise (Maewo)	Ambae	Vanua Lava	Wintua-Lorlow*
Total active customers	12,355	3,597	1,380	1,232	315	210	108	93	117
Feb-23									
Electricity Network	Port Vila	Luganville	Tanna*	Malekula*	Port Olry	Talise (Maewo)	Ambae	Vanua Lava	Wintua-Lorlow*
Total active customers	12,379	3,468	1,380	1,232	305	194	111	90	117
Mar-23									
Electricity Network	Port Vila	Luganville	Tanna*	Malekula*	Port Olry	Talise (Maewo)	Ambae	Vanua Lava	Wintua-Lorlow*
Total active customers	12,404	3,673	1,380	1,232	301	194	114	98	117

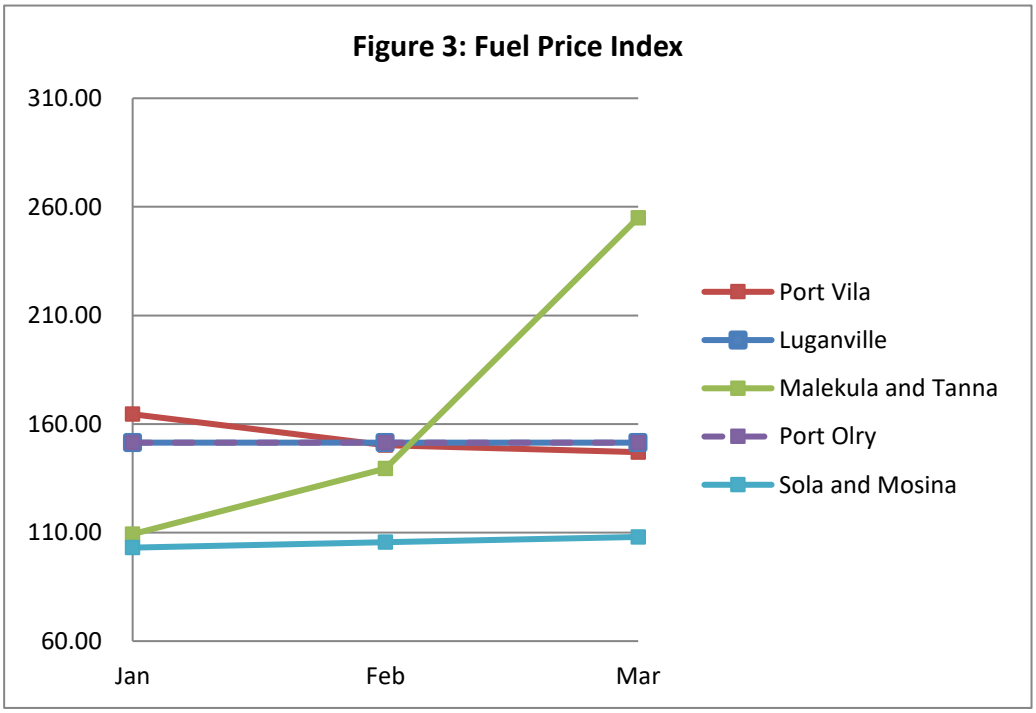
*The Tanna, Malekula and Wintua- Lorlow customer data are estimated because there are currently no available data provided to the URA. Estimations were based on the last available data provided by the Department of Energy.

Fuel cost index

Figure 3, on the right presents the movement in fuel price index in February 2023. It shows the price per liter of diesel and the evolution or movement of fuel price in 2023. The index point is updated to start 100 points in January 2020 to cater for electricity service areas that their operational data becomes available thereafter.

The Tanna and Malekula fuel price index for the month was estimated as the necessary data were unavailable when this report was made.

The Port Olry and Luganville Fuel price index are similar. This is because the fuel is purchased at the same price.



[2] Renewable sources include copra oil, hydro, solar and wind.

[3] Update National Energy Road Map 2016 – 2030. The target by 2030 is 100% generation from renewable energy sources.

Electricity Price

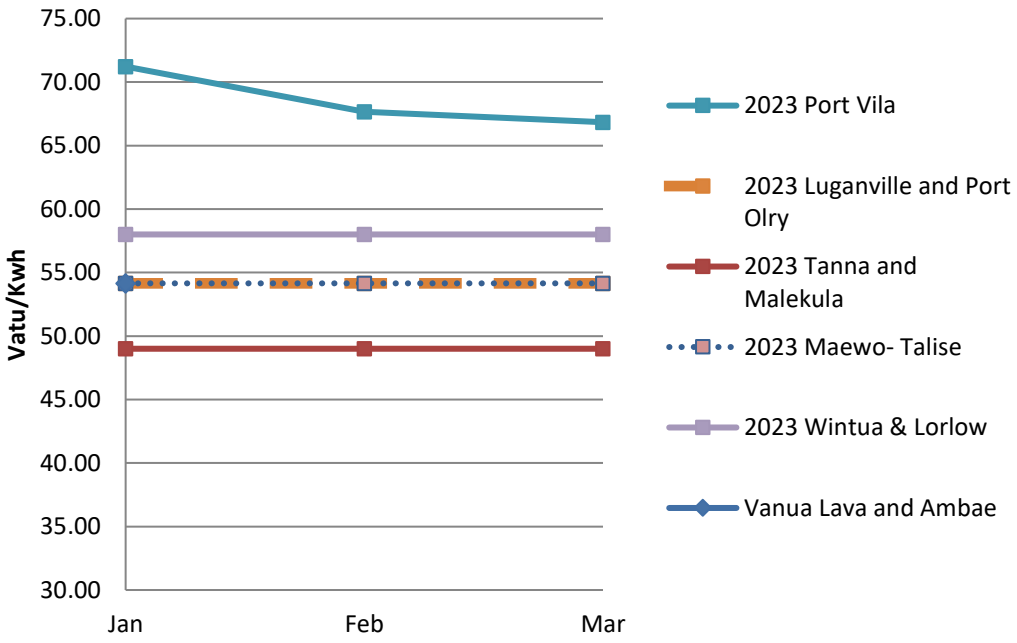
UNELCO[4] tariff for the month of February 2023 is 66.84 Vatu/kWh. VUI[5], DoE[6] and the Wintua/Lorlow electrical Cooperative's[7] applicable tariff in Vatu/kWh of the same month is 54.15, 49 and 58 respectively.

UNELCO's actual operational parameters for a reporting month are typically utilized to compute electricity tariff for the following month.

VUI's tariff of 54.15 VT/kWh is issued by the Authority and implemented in November 2022. It is a uniform tariff charged to all service areas that VUI manages.

DoE's electricity tariff for Tanna and Malekula is fixed at 49.00 VT/kWh since November 2021 after a subsidy was provided by the Vanuatu Government.

Figure 4: Electricity Price



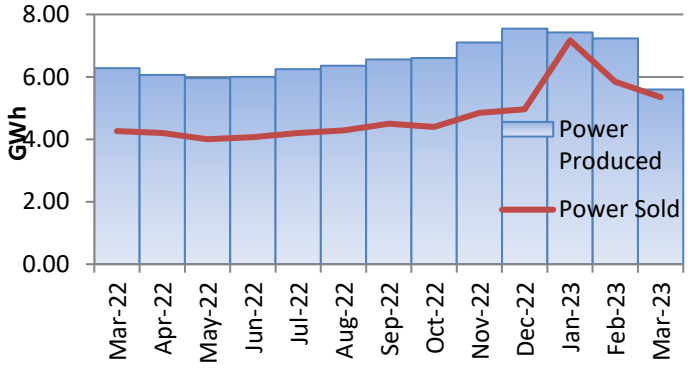
Total Electricity Generated and Sold.

Total power produced decreased by 22.62 % from preceding month; comparing it with the equivalent month in previous calendar year, the total power generated also decreased by 18.1 %.

Total power sold during the month decreased by 8.6 % from previous month but increased by 12.1 % for the corresponding month in 2022.

Changes in power produced and sold are entirley dependent on electricity consumption and power losses within the reporting month.

Figure 5: Electricity Generated and Sold



The data utilized in creating this monthly energy snapshot does not include electricity production outside of a concession agreement or MOU.

Utilities Regulatory Authority

About the Utilities Regulatory Authority (URA)

The URA is the independent economic regulator for water and electricity services in Vanuatu, established by the URA Act no. 11 of 2007 with amendments.

As part of its functions, the Commission is monitoring the provision of electricity and water by utility companies and public services, promoting access and the long-term interest of the customers.

Please call us if you have any question on (678) 23335 or visit our office at the Office of the Utilities Regulatory Authority, VNPF Compound, Corner Pierre Lamy & Andre Ballande Street, Port Vila, Vanuatu.

The URA welcomes suggestions and feedbacks from readers of this monthly energy snapshot report. Any readers desiring to seek clarity of this report are encouraged to seek clarity from the URA should they do not understand any part of this report.

[4] Union Electrique du Vanuatu, <<UNELCO Engie>>, supplies electricity in Port Vila

[5] Vanuatu Utilities & Infrastructure Limited supplies electricity in Luganville and Port Olry (Santo), Sola & Mosina (Vanua Lava), Saratamata, Lolowai & Longana (Ambae) and Talise (Maewo).

[6] The Department of Energy (DoE) supplies electricity in the Tanna and Malekula concessions since mid-July 2020 and has commenced charging tariff in October of 2020.

[7] Wintua/Lorlow cooperative is operating the newly established Solar grid at Wintua and Lorlow in Malekula. For more information visit the Department of Energy's website (www.doe.gov.vu)