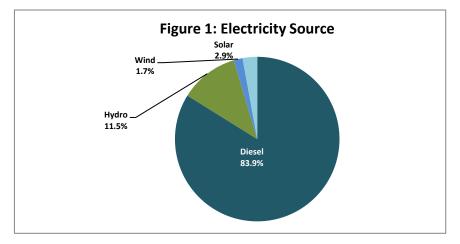


VANUATU MONTHLY ENERGY MARKET SNAPSHOT OF DECEMBER 2021

Electricity source

Figure 1 below shows the different types of energy sources used to produce electricity in Vanuatu during the month of December 2021. The main energy source was diesel combustion that contributed 83.9 % of the total electricity produced. The hydro plants at Santo and Maewo (Talise) generated 11.5 % of electricity, while the combined solar panels on Efate, Luganville, Lakatoro and Lenakel contributed 2.9 % and windmills at devils point 1.7 %.



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 concession areas during the month. The bottom part of the table reveals the respective contribution in % of the available energy generation sources in each concession area¹.

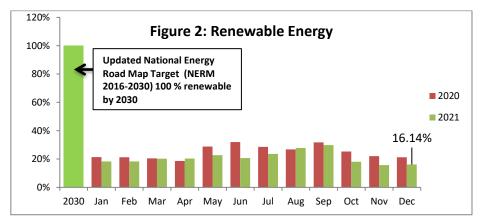
Table 1:

Dec-21	Port Vila	Luganville	Malekula- Lakatoro	Tanna	Ambae	Sola	Maewo	Malekula - Lorlow & Wintua	Port Olry
Total kWh Produced	5,653,906	1,121,460	102,511	134,714	11,778	4,801	6,287	-	18,420
Litres of diesel used	1,331,648	91,809	27,581	29,411	-	2,380	-	-	6,973
Diesel %	94.43%	27.59%	98.22%	98.00%	100.00%	100.00%	100.00%	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%	71.58%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Wind %	2.16%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Solar %	3.40%	0.27%	1.78%	2.00%	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.

Renewable Energy Generation

Figure 2 on the right presents the % portion of electricity generated from renewable energy sources² during the month in Vanuatu. The 2020 renewable contributions can be compared with the year-to-date renewable proportions for (YTD) 2021. Furthermore, it provides an overview on where <u>'Vanuatu renewable electricity generation'</u> stands in concession and mini-grid areas in comparison to the NERM's³ target.



³ Update National Energy Road Map 2016 – 2030. The target by 2020 is 65% generation from renewable energy sources.

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 Lakatoro 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.

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

Number of customers

Table 2 outlines number of customers in different concession areas in Vanuatu (See notes for more information on concessionaires).

Table 2:											
Dec-21											
Customer numbers	Port Vila	Luganville	Tanna	Malekula	Port Olry	Talise (Maewo)	Ambae	Vanua Lava	Wintua-Lorlow		
Total active customers	16,218	3,841	1,380	1,232	352	231	129	78	116		

Fuel cost index

Figure 3, on the right discloses the fuel price index. It is not showing the price per liter of diesel but the evolution or movement of fuel price in 2021. 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.

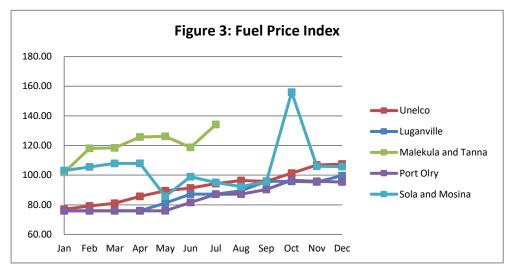
At the time this report was issued, the Department of Energy was not able to provide the necessary data to compute the fuel price index for Tanna and Malekula since August 2021 (As shown in the graph).

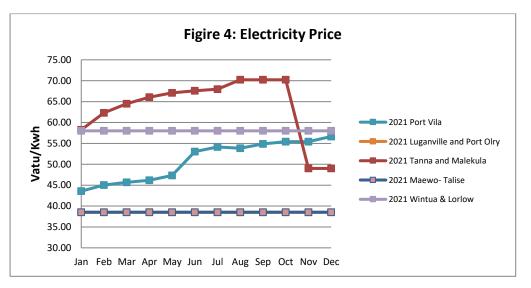
Electricity Price

UNELCO⁴ tariff for the month of December 2021 is 56.65 Vatu/kWh. VUI⁵, DoE⁶ and the Wintua/Lorlow electrical Cooperative's⁷ applicable tariff of the same month is 38.52, 49 and 58 Vatu/kWh respectively.

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

DoE's tariff is fixed at 49.00 VT/kWh after a subsidy was provided by the Vanuatu Government to assist DoE with the operational costs of Tanna and Malekula, as the tendering process of the concession areas was still ongoing.





⁴ Union Electrique du Vanuatu Limited, <<UNELCO LIMITED>>, supply electricity in Port Vila

⁵ Vanuatu Utilities Infrastructure supplies electricity in Luganville and Port Olry (Santo), Sola (Banks) 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.

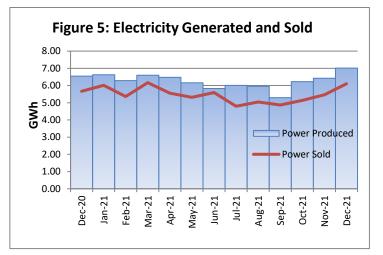
⁷ Lakatoro cooperative is operating the newly established Solar grid at Wintua and Lorlow in Malekula. For more information visit the Department of Energy's website (www.doe.gov.vu)

Total Electricity Generated and Sold⁸ within the concession areas.

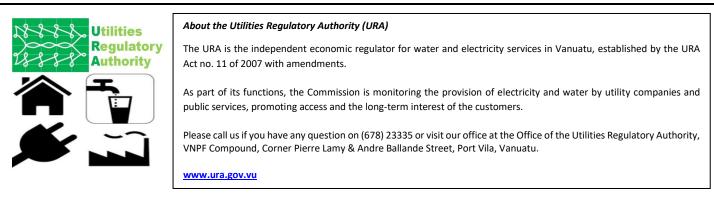
Total power prodcued increased by 9.18% from preceding month; comparing it with the equivalent month in previous calendar year, the total power generated also increased by 16.8 %.

Total power sold during the month increased by 11.7 % from previous month and also increased by 24.1 % for the corresponding month in 2020.

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



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



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.

⁸ Monthly energy sold in UNELCO's Concessions for the reporting month is estimated based on actual proportion of energy sold to total energy produced in comparable month for the previous calendar year.