Country Report

TRAINING: ENERGY POLICY

Country: Fiji

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INTRODUCTION

- **Parent organisation:** Ministry Of Infrastructure, Transport, Disaster Management And Meteorological Services (MoIT) & Electricity Fiji Limited (EFL)

➢ **Department of Energy (DoE) & Electricity Fiji Limited**

- **Vision:** To provide a sustainable & affordable energy sector for Fiji & Electricity Access for all Fijians.
- **Mission:** To provide an enabling environment for a sustainable energy sector. Provide quality & consistent service to customers.

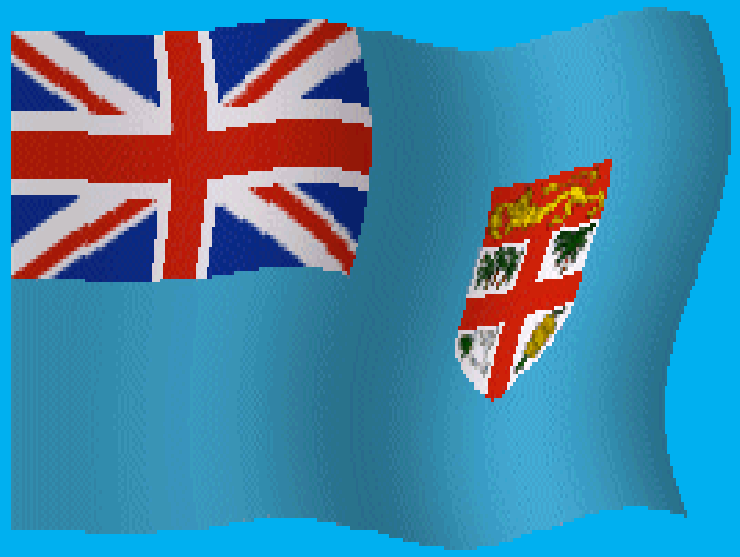
[Most of the Works are guided by NEP, Electricity Act, Electricity Bill, NDP, NDC etc]

➢ **Energy Fiji Limited (EFL)**

- State owned electricity utility which is responsible for the Generation, Transmission and Retail of electricity on the larger islands, Viti Levu, Vanua Levu and Ovalau
- The EFL was established in 1966 under the Electricity Act with the basic function to provide and maintain a power supply that is financially viable, economically sound and consistent with the required standards of safety, security and quality of power supply

2. BRIEF OUTLINES OF FIJI

- **Location:** South Pacific Ocean (~ 18 degrees S, ~ 178 degrees E)



- **Land Area:** 18,333 km^2
- **Population:** Close to 1 Million
- **Languages:** English, Fijian and Hindi
- **GDP:** FJD 10.92 bn ~ USD 5.06 bn
- **Main Industries:** (1) Tourism - Hotels & Resorts, (2) Agriculture – Sugar

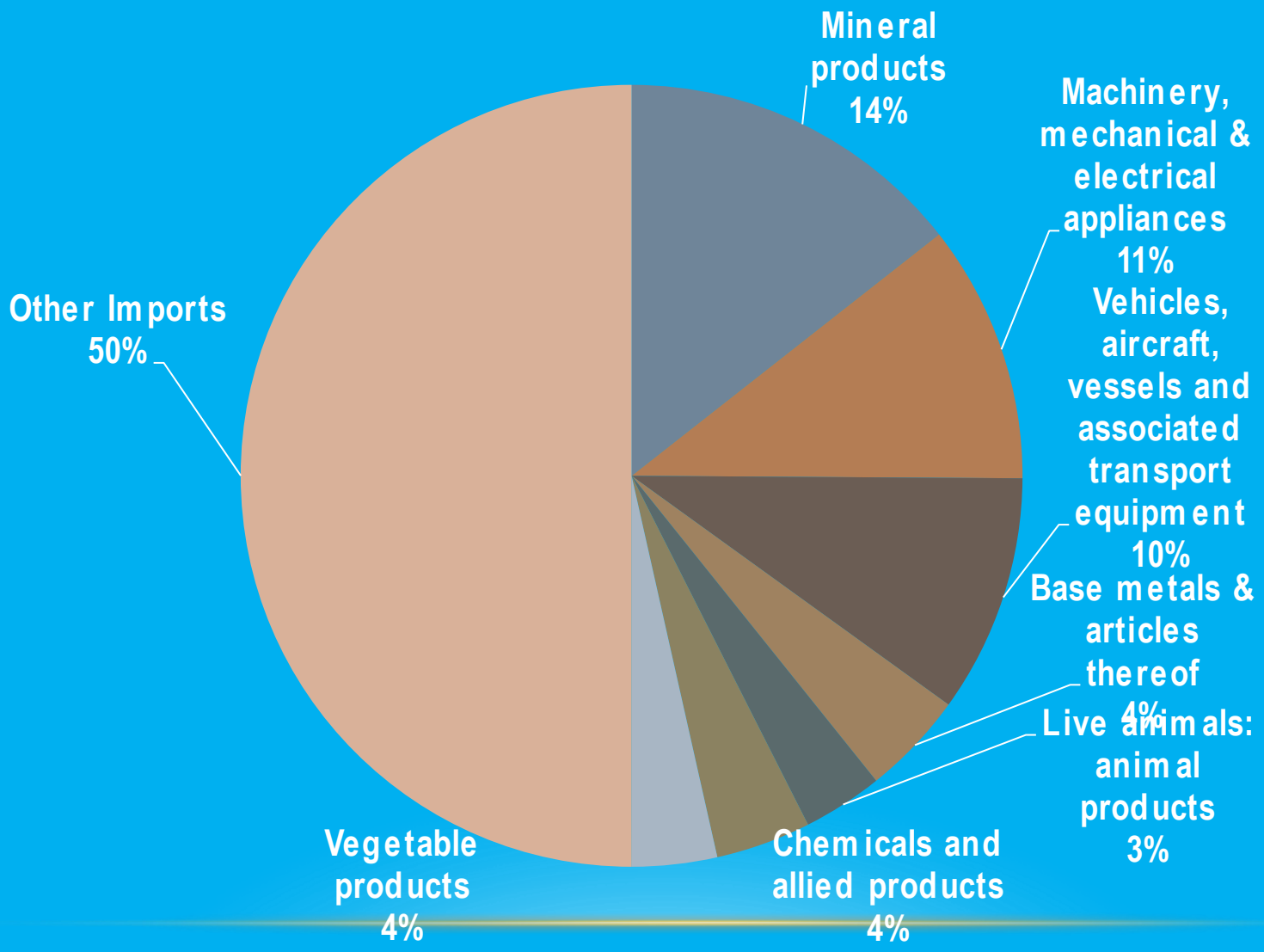
(3) Mining- Gold, Copper, Bauxite (4) Fisheries & Forestry – Tuna & Logging, (5) Food Processing & Manufacturing,(6) Garment and Textiles, (7) Cement Factories

ENERGY SITUATION IN FIJI

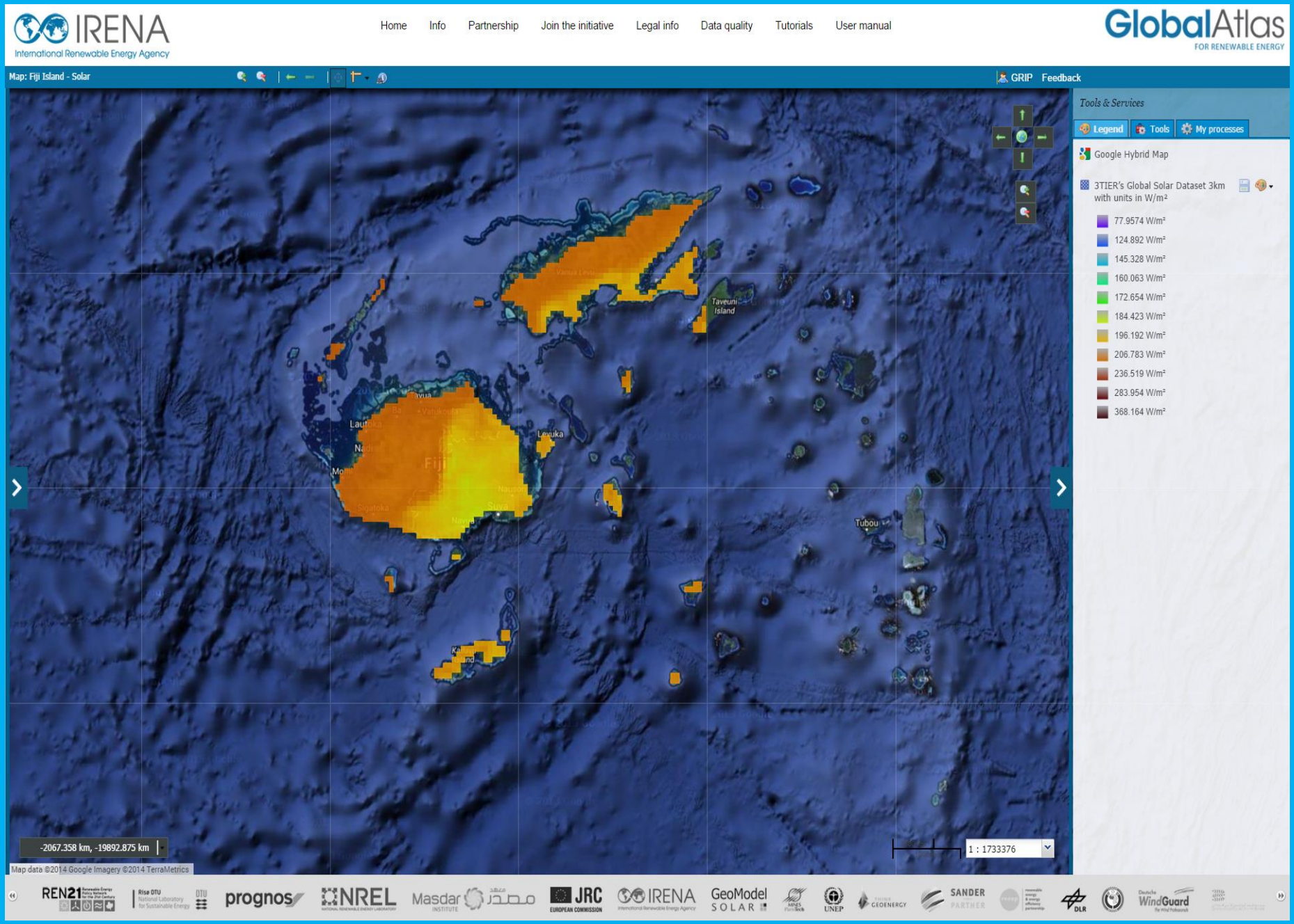
Fiji has seen significant progress over the last ten years, especially in the area of access to modern energy and in increasing the share of renewable energy sources in electricity generation. New bio-fuel, wind, solar and hydropower plants have been installed, rural electrification has advanced, energy efficiency promotion has been conducted by the Department of Energy and some incentives to replace inefficient vehicles and appliances are in place, amongst other activities in the energy sector.

As a small island nation in the Pacific, one of the main issues in Fiji's energy sector is the high reliance on imported fuels. The impact of the energy sector on Fiji's macro-economy through high and volatile fuel prices and high import payments is significant. The need to reduce reliance on imported fuels and thus safeguard foreign reserves is considered key in ensuring macro-economic stability for Fiji. This provides a natural drive for Fiji to find alternative fuels in the form of renewable and indigenous fuels.

BASELINE DATA - TOTAL IMPORTS - 2018

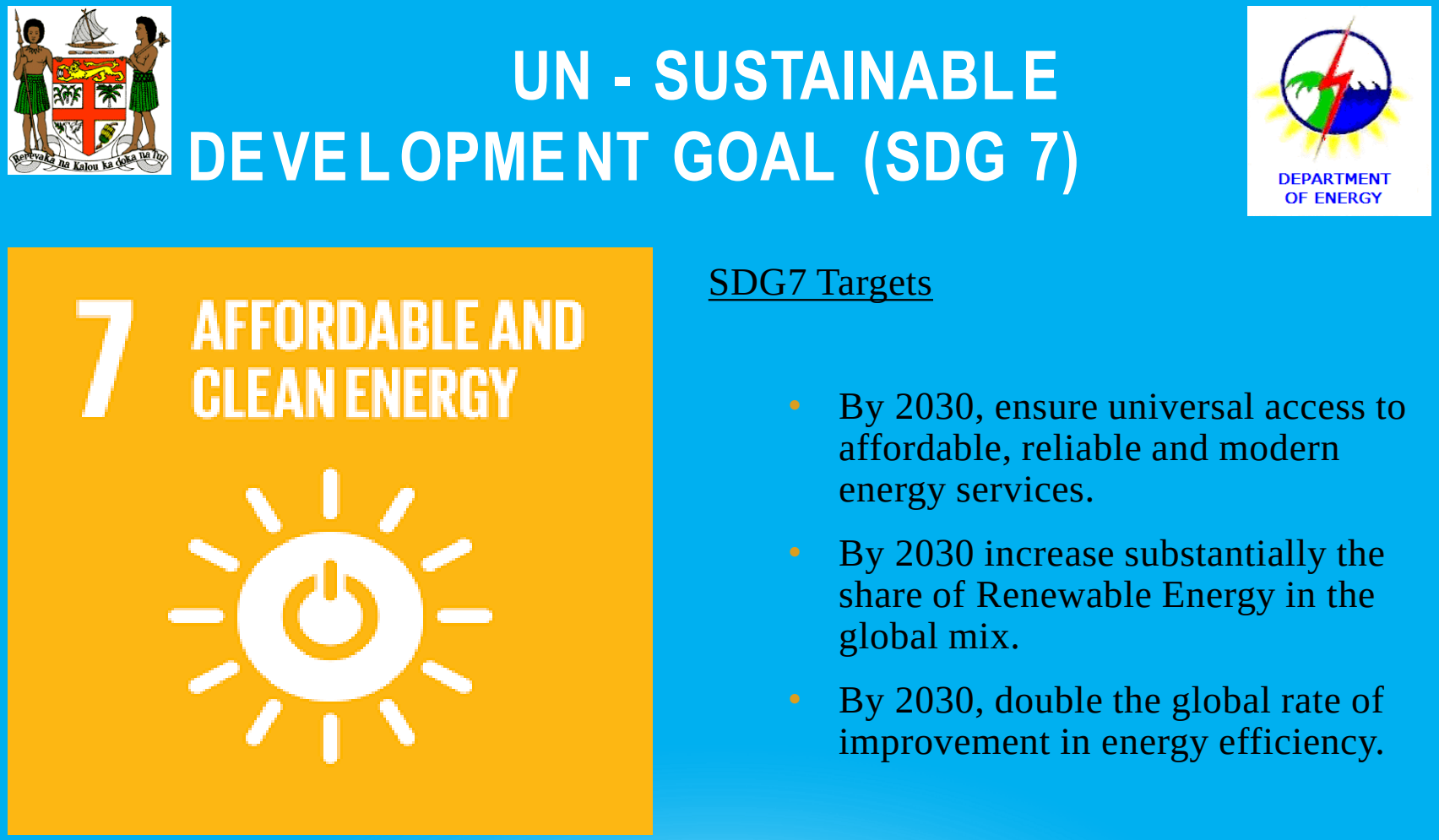


Source: Fiji Bureau of Statistics (Principle imports provisional data, 2018)


IRENA
International Renewable Energy Agency
Home
Info
Partnership
Join the initiative
Legal info
Data quality
Tutorials
User manual
GlobalAtlas
FOR RENEWABLE ENERGY
Map: Fiji Island - Solar
GRIP
Feedback
Tools & Services
Legend
Tools
My processes
Google Hybrid Map
3TIER's Global Solar Dataset 3km with units in W/m²
77.9574 W/m²
124.892 W/m²
145.328 W/m²
160.063 W/m²
172.654 W/m²
184.423 W/m²
196.192 W/m²
206.783 W/m²
236.519 W/m²
283.954 W/m²
368.164 W/m²
Taveuni Island
Lautoka
Nadi
Lomaiviti
Lakeba
Suva
Tubou
-2067.358 km, -19892.875 km
1 : 1733376
Map data ©2014 Google Imagery ©2014 TerraMetrics
REN21
Risø DTU
prognos
NREL
Masdar
JRC
IRENA
GeoModel SOLAR
UNEP
SANDER
DLR
WindGuard

INTERNATIONAL TARGETS

UN - SUSTAINABLE DEVELOPMENT GOAL (SDG 7)

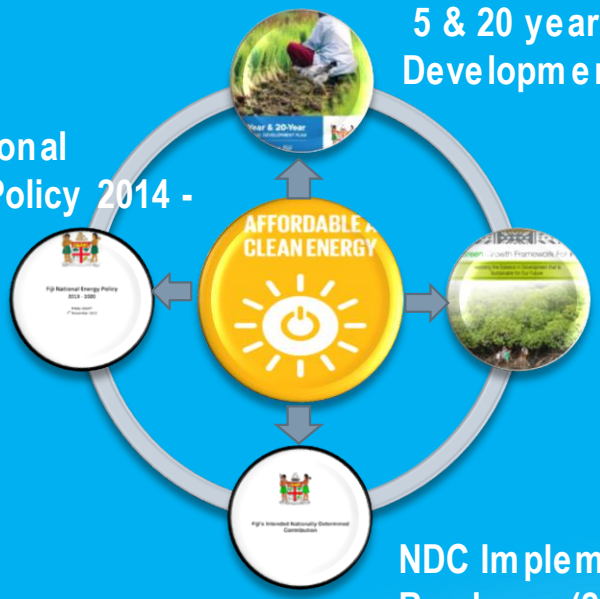


SDG7 Targets

- By 2030, ensure universal access to affordable, reliable and modern energy services.
- By 2030 increase substantially the share of Renewable Energy in the global mix.
- By 2030, double the global rate of improvement in energy efficiency.

DOMESTIC POLICIES

SDG TARGET AND ITS LINKAGES



Fiji's National Energy Policy 2014 - 2020

5 & 20 year National Development Plan

Green Growth Framework (2014)

NDC Implementation Roadmap (2017-2030)

Other Relevant Planning Documents

- National Climate Change Policy -2012
- Maritime Transport Policy -2015
- Low Emission Development Strategy (LEDS)-(2018-2050)
- National Adaptation Plan -2018

NATIONAL DEVELOPMENT PLAN

5-YEAR & 20- YEAR NATIONAL DEVELOPMENT TARGETS

DEPARTMENT OF ENERGY

2021

- 100% Electricity Access to all Fijians

2036

- Increase renewable target to 100% in the overall electricity Supply mix

5-YEAR & 20-YEAR NATIONAL DEVELOPMENT PLAN – ENERGY SECTOR TARGETS

	2015	2021	2026	2031	2036
Inclusive Socio-economic Development					
Access to electricity (% of population) (SDG 7.1)	90	100	100	100	100
Percentage of population with primary reliance on wood fuels for cooking (%)	18	12	6	<1	0
Energy intensity (consumption of imported fuel per unit of GDP in MJ/FJD) (SDG 7.3)	2.89	2.86		2.73	
Energy intensity (power consumption per unit of GDP in kWh/FJD) (SDG 7.3)	0.219	0.215		0.209	
Renewable energy share in electricity generation (%) (SDG 7.2)	67	81	90	99	100
Renewable energy share in total energy consumption (%) (SDG 7.2)	13	18		25	

NATIONAL ENERGY POLICY (NEP) 2014-2020

Outcomes: 1) Affordable energy for all

2) Sustainable energy supplies

3) Reduced import costs

Objectives

- To provide all Fijians with access to affordable and reliable modern energy services
- To establish environmentally sound and sustainable systems for energy production, procurement, transportation, distribution and end-use
- To increase the efficient use of energy and the use of indigenous energy sources to reduce the financial burden of energy imports on Fiji

Key Strategic Areas

i. Grid-based power supply

ii. Rural electrification

iii. Renewable energy

iv. Transport

v. Petroleum and biofuels

vi. Energy efficiency

NATIONAL DETERMINE CONTRIBUTION

FIJI'S NDC TARGET

DEPARTMENT OF ENERGY

- 10% through Energy Efficiency
- 20% Achieved through Renewable Energy
- Reduce GHG Emission by 30% by 2030

NEP – STRATEGIC PLANS

NEP STRATEGIC AREA I: GRID-BASED POWER SUPPLY

PRIORITY POLICY STATEMENTS

DEPARTMENT OF ENERGY

5.1.1 **Increase private sector investment in large-scale electricity generation** by establishing a transparent process for procurement of new large-scale capacity from Independent Power Producers (from both renewable and non-renewable energy sources), pricing and other principles to be applied in all new Power Purchase Agreements, and grid-connection standards.

5.1.2 **Increase private sector investment in small-scale grid-connected renewable generation**, by establishing economically justified feed-in tariffs or similar mechanisms to give incentives and reduce the risks for electricity production from small-scale renewable sources that are connected to the grid (including by providing investors an adequate return on capital).

5.1.3 **Strengthen transparency and effectiveness of the regulation of the electricity industry**. This includes establishing a formal regulatory contract with the then Fiji Electricity Authority (FEA) that sets out a process for regularly reviewing the efficient costs of electricity supply and setting tariffs to recover these, and making all forms of electricity subsidy transparent **including** to energy consumers.

NEP – STRATEGIC AREAS

NEP STRATEGIC AREA II: RURAL ELECTRIFICATION

PRIORITY POLICY STATEMENTS

DEPARTMENT OF ENERGY

5.2.1 **Develop a national electrification master plan,** showing how each un-electrified area of Fiji will be served with least cost solutions. Technological solutions to be considered in consultation with communities will include grid extension, diesel and hybrid mini-grids, and solar home systems. The plan will also clearly define a minimum level of service which qualifies as 'electrification'.

5.2.2 **Establish a dedicated electrification fund** and an associated framework that will be used to provide capital subsidies for electrification projects. The framework should consider how to facilitate equitable electricity access based on gender and disadvantaged groups . Going forward, funding being provided by the Government for the implementation of rural electrification projects will be channelled into this fund, thereby making subsidies more transparent and easier to monitor and evaluate.

NEP – STRATEGIC AREAS

NEP STRATEGIC AREA III: RENEWABLE ENERGY

PRIORITY POLICY STATEMENTS

5.3.1 **Maintain a comprehensive assessment of Fiji's renewable energy resources**, including hydro, wind, biomass, solar, and geothermal resources. This assessment will include an inventory of available sites and technologies, their technical and economic viability, and social and environmental impacts.

5.3.2 **Make all data on renewable energy resources available to the public and prospective investors** through a single national repository at the Department of Energy. This will ensure that a lack of information on resource potential does not continue to be an impediment to private sector and other relevant project developers.

5.3.3 **Conduct further investigations into geothermal energy resources** with a view to identifying a pilot project for development. This recognises the contribution that geothermal energy can make to diversifying the energy mix, providing base load generation and thereby reducing the reliance on hydropower and petroleum imports.

Notable Challenges

- One of the main challenges in the power sector is institutional in nature: there is no effective Independent Power Producer (IPP) framework in place that would attract the urgently needed private capital into renewable energy based power generation.

- At present there are no feed-in tariffs, net metering provisions or incentive programmes that would promote such generation by households and Small and Medium Enterprises (SMEs)

- Challenges often faced in implementing a project:
  - Funds
  - Planning
  - Contract variations
  - Processes and procedures
  - Project Management
  - Availability of transport to installation sites

- Ensure grid stability since generation through renewable energy is often intermittent and unscheduled and as with the increased penetration of energy; there is a possibility of grid shut down

CONCLUSION

Fiji will need to Review its National energy policy to get IPP involved. Data is inconsistent and cannot get quality data by sectors. We have used a baseline for 2018 to do an energy balance and found out that a lot of data a missing. There is a lot of missing links to inline the policy with other documents and also the international targets.

Following are some notable challenges that need to be a focus in reviewing the national energy policy;

- Involvement of IPP ‘s in the renewable sector
- No regulations in place to monitor imported energy products
- Reviewing of Policies
- Data Collection (Getting Data by Sector)
- Government stakeholders. NGO’s and other stakeholders in the energy sector to work together.

Fiji

Is well known of it beautiful weather with its natural surroundings as shown.

Fijian Fire Dance

A traditional dance well known in the Pacific Islands.

Fiji is well known in Rugby

Fijian Rugby 7s Team

VINAKA
(THANK YOU)

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