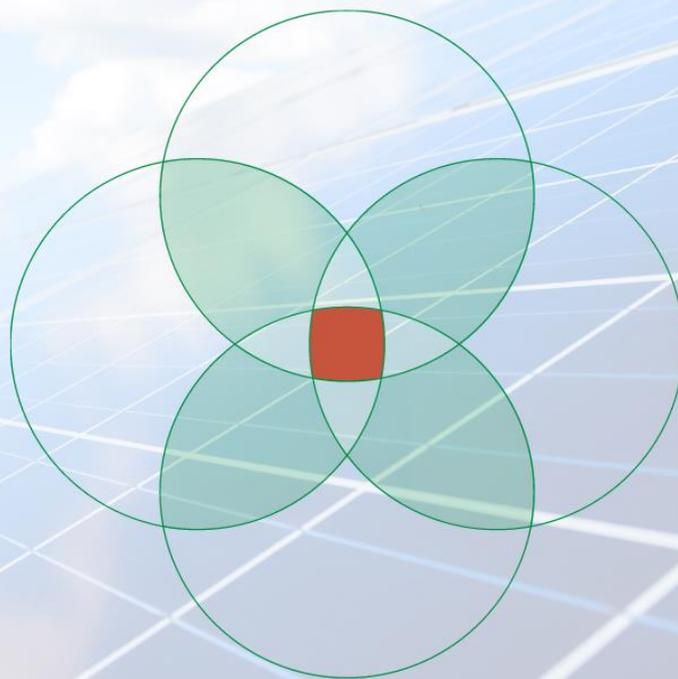


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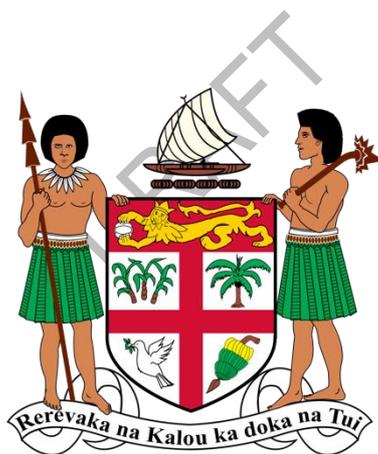
# NATIONAL ENERGY POLICY

2021–2030



# Republic of Fiji National Energy Policy 2021-2030

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*Our energy, Our Future*

## Foreword

The subtext of this Policy '*our energy, our future*' is demonstrative of the Fijian Government's intention to influence and shape Fiji's national energy services in a way that is appropriate for the context and challenges faced today as well as those we are likely to face tomorrow. It is clear that Fiji's economy, energy demand, and development progress will be reliant on the quality of the decisions we make today. With this understanding at the forefront this policy takes a holistic view of Fiji's energy sector and sub sectors and puts forward clear objectives that seek to ensure that our decisions are informed by strategic analysis, foresight, and proof of concept. We understand, more so than ever before, that energy systems must be shaped by the environmental and economic parameters and characteristics of the context in which they are operated.

Through the vision of this policy and the broader development plans and international commitments it supports, Fiji Intends to play a leadership role, by developing the blueprints and best practices that will help influence the way small island, climate-vulnerable, developing states transition to a low carbon future.

This National Energy Policy plays a direct role in the implementation of Fiji's climate change ambitions as set out in the National Development Plan, National Climate Change Policy, and Climate Change Act.

Fiji's Climate Change Act requires state entities to align their respective strategies, policies and objectives with the principles and requirements of the Act as well as its legal reaffirmation of Fiji's Nationally Determined Contribution under the Paris Agreement and its ambition to achieve net zero economy-wide annual by 2050. Through this policy the Ministry of Infrastructure and Meteorological Services will play a direct role in managing the evolution of Fiji's energy sector to serve national interests while building resilience to climate change. The energy sector is increasingly the backbone of economies both large and small and in the wake of the COVID-19 pandemic – the impetus to manage risks, increase efficiency, and build new sustainable economic pursuits has never been greater.

....

## Executive Summary

The resilient development and diversification of Fiji's energy sector is a long-term priority for the Fijian Government due in part to rising national energy demand, volatile oil prices, ageing energy infrastructure, and the intensifying impact of climate change and disaster events on Fiji's infrastructure, environment, people, and economy. Beyond these factors and trends there is an array of current and projected socio-economic and cultural changes that are reconfiguring the way Fijians utilise different forms of energy and depend on energy services. The introduction of new energy technologies, increased digitization, and shifting national preferences will continue to further change the way energy services must be designed, scaled, and delivered. These factors mean that specific actions and policy measures will be required to adapt to an array of changing demand parameters that must be met to maintain and improve energy security.

National energy production and consumption in Fiji remains highly dependent on imported fossil fuels in part due to the current demands of the transport sector and the ongoing reliance on thermal power plants to supplement renewable energy sources within Fiji's electricity sector. In light of Fiji's commitments to address both the causes and impacts of climate change and transition rapidly to a sustainable economy producing net-zero emissions annually by 2050, this National Energy Policy provides the intent, direction, and priority objectives to support national energy security, achieve universal and equitable access to energy services, harness sustainable sources of energy, maximise energy efficiency, and improve the institutional arrangements to facilitate this transition.

The vision for the NEP 2021-2030 is the development and creation of:

***A resilient resource-efficient, cost-effective, accessible, reliable and environmentally sustainable energy sector for all Fijians***

This policy encompasses Fiji's national commitments to achieve the relevant targets under Sustainable Development Goal 7 and has been developed in alignment with Fiji's revised Nationally Determined Contribution (2021) to the UNFCCC Paris Agreement. The NEP 2020-2030 has been informed by six cross-cutting principles. Firstly, objectives have been shaped around a focus on '**affordability**' recognising the need to balance the needs of energy producers, investors, and consumers when navigating all issues dealt with by this policy. To further develop the sector, this policy supports market development through a focus on improving **competitive neutrality** within the energy sector while ensuring **energy access for all**. The NEP seeks to directly improve **gender equity, equality and empowerment** through targeted objectives that address the nexus between gender and energy issues in addition to a focus on ensuring that Fiji's energy sector development brings about a **just transition** for all Fijians in the form of new opportunities and employment. Finally, the NEP is a vehicle for supporting Fiji's broader **renewable energy and sustainability** objectives from both an economic and environmental standpoint and seeks to scale up renewable energy, alternative fuels, and overall supply and demand-side efficiency to ensure Fiji's resources and economic productivity can remain intact for the benefit of future generations.

The NEP's policies and objectives are oriented around the recognition of the 'energy trilemma' which refers to the overarching challenge of balancing energy security, access, and sustainability objectives. The NEP addresses this challenge by recognizing the need to address the overlaps and interconnectivity between sectors and actors to achieve Fiji's development goals. The objectives of this policy fall under five policy pillars: **1) Energy Security and Resilience, 2) Energy Access and Equity, 3) Energy Sustainability, 4) Energy Efficiency, 5) Energy Governance**. Together these policy pillars and the objectives under each pillar provide the high-level intent that will shape the development of Fiji's energy sector over the coming decade.

# Compliance with the Climate Change Act 2021

**This policy supports requirements and state obligations established under the Climate Change Act 2021.**

**This National Energy Policy and the process to develop it has been guided by the principles of the Climate Change Act and directly serves the requirements set out under Part 5 'Climate Change Obligations of State Entities' Sections 18(2), Section 19, Section 21, and Section 24.**

**The objectives described and promoted by this policy are presented as direct support to the relevant intent and processes described under Part 7, Part 8, Part 9, Part 11, Part 14, and Part 15 of the Climate Change Act 2021.**

**The five policy pillars described by this policy are closely inter-linked with the premise of the provisions under these parts and the approach taken to achieve the stated objectives recognises and increases the requirement for close cross-sectoral and inter-governmental collaboration.**

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## Acknowledgements

The preparation of this report was led by the Fijian Government through the Department of Energy (DoE) under the Ministry of Infrastructure and Meteorological Services (MIMS), Fiji and funding support from the Ministry of Foreign Affairs and Trade (MFAT) of the New Zealand Government with technical support of the Global Green Growth Institute (GGGI) and close collaboration with the Department of Transport (DoT) under the Ministry of Commerce, Trade, Tourism, and Transport (MCTTT), the Climate Change and International Cooperation Division (CCICD) and the Budget and Planning Division (BPD) under the Ministry of Economy (MoE), and Energy Fiji Limited (EFL).

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The DoE would like to acknowledge and show its gratitude for the active participation and contributions of all national and international stakeholders in relation to information gathering, discussions, and consultations in terms of reviewing existing national energy policies and plans to ensure a new and inclusive National Energy Policy 2021 – 2030 is developed. These include:

### *Steering Committee*

Department of Environment, MWE; Department of Trade and Standards Measurements, MCTTT; Fiji Revenue and Customs Services; Fiji Competition and Consumer Commission; Reserve Bank of Fiji; Fiji Bureau of Statistics; Water Authority of Fiji; Land Transport Authority; Maritime Safety Authority of Fiji.

### *Government Agencies, Private Sector, Academic Institutions, Development Partners, and Civil Society*

Department of Building and Government Architect, MIMS; Department of National Trade Standards, MCTTT; Department of Tourism, MCTTT; Department of Water and Sewerage, MIMS; Ministry of Women, Children and Poverty Alleviation; Ministry of Justice and Civil Aviation; National Disaster Management Office; Ministry of Agriculture; Ministry of Forestry; Civil Aviation Authority of Fiji; Fiji Roads Authority; Fiji Commerce and Employers Federation; Total Fiji Limited; Exxon Mobil Fiji; Pacific Energy; Fiji Gas; Blue Gas; Oceania Gas; Kasabias Fiji; United Nations Development Program; Adventist Development Relief Agency; Grace Tri Fam Ministry; Fiji Sugar Cooperation; Tropik Woods Fiji Limited; Vatukoula Gold Mine Limited; Pacific Island Development Forum; Secretariat of the Pacific Community;

Pacific Island Development Forum; International Union for Conservation of Nature; European Delegation to the Pacific; Fiji Development Bank; Asian Development Bank; World Bank; Private Financing Advisory Network; University of the South Pacific; Fiji National University; University of Fiji; Fiji Bus Operators Association; Fiji Taxi Association; Niranjan Motors Limited; Asco Motors Fiji Limited; Nivis Motors Limited; Carpenters Motors Fiji Limited; Pacific Power Association; CBS Power Solutions; Sunergize Fiji Ltd; Clay Energy Limited; Techno Fiji PTE Limited; MV Solar Fiji Ltd; GreenCo Fiji Ltd; LMMA Network International; Fiji Institute of Engineers; Irwin Alsop Pacific; Paradise Technology Fiji Limited; Pacific Batteries Limited; International Renewable Energy Agency; Korea International Cooperation Agency; Japan International Cooperation Agency; Deutsche Gesellschaft für Internationale Zusammenarbeit; Fiji Hotel and Tourism Association.

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## Acronyms / Abbreviations

Airports Fiji Limited	AFL
Business as usual	BAU
Civil Aviation Authority Fiji	CAAF
Department of Building and Government Architect	DBGA
Department of Civil Aviation	DCA
Department of Energy	DOE
Department of Trade Measurement and Standards	DNTMS
Department of Transport	DOT
Electric Vehicle(s)	EV
Energy Fiji Limitedsta	EFL
Fiji Airports Limited	FAL
Fiji Bureau of Statistics	FBOS
Fiji Development Bank	FDB
Fiji Hotel and Tourism Association	FHTA
Fiji Ports Corporation Limited	FPCL
Fiji Ports Corporation Limited	FPCL
Fiji Revenue and Customs Services	FRCS
Fiji Roads Authority	FRA
Fiji Sugar Corporation	FSC
Fijian Competition and Consumer Commission	FCCC
Fijian Dollar	FJD
Government Shipping Services	GSS
Gross Domestic Product	GDP
Heavy Fuel Oil	HFO
Key Performance Indicator	KPI
Land Transport Authority	LTA
Ministry of Commerce, Trade, Tourism and Transport	MCTTT
Marine Safety Authority of Fiji	MSAF
Ministry of Economy	MOE
Ministry of Health and Medical Services	MHMS
Ministry of Infrastructure and Meteorological Services	MIMS
National Climate Change Policy (2018-2030)	NCCP
National Development Plan (2017)	NDP
National Energy Policy	NEP
National Energy Policy Steering Committee	NEPSC
National Energy Policy Strategic Action Plan	SAP
Nationally Determined Contribution	NDC
Reserve Bank of Fiji	RBF
Sustainable Development Goal	SDG
Small Island Developing State	(SIDS)
United Nations Convention on Climate Change	UNFCCC
Variable Renewable Energy	VRE
Water Authority Fiji	WAF

## Introduction

Fiji's energy sector has been shaped by the demands of Fiji's growing economy as well as by Fiji's natural environment, tropical climate, and cultures. The future of Fiji's energy sector will continue to be shaped by these factors. Today, as much as 60% of Fiji's electricity generation is derived from hydropower while remote islands and some rural areas are largely dependent on fossil fuel-powered energy production. The growth of Fiji's land transport sector has been largely concentrated around growing urban centres. At the same time, connectivity and the provision of transport services to outer islands by sea and by air is an ongoing challenge and development priority. In the future, oil price volatility, new transport technologies, new investments in achieving carbon emissions reduction targets, changes to rainfall patterns, and the increasing affordability of locally deployable renewable electricity are likely to transform Fiji's energy sector dramatically. While this transformation is a national priority and will be a core driver of economic transformational change globally, the nature and speed of this transition and the ability for this shift to effectively support Fiji's economic and social objectives will be shaped by Fiji's public policy and the ability to attract new forms of private sector investment while supporting fair and affordable access to energy services.

In 2018, the Fiji Electricity Authority transitioned to a commercial company and its corporatisation was formalised under what is now known as 'Energy Fiji Limited' (EFL). The Fijian Government announced the partial divestment of shares in EFL in 2019 and further divestment intention was confirmed in 2020. This National Energy Policy responds to the changing energy sector landscape and has been developed to guide and shape the evolution of the energy sector over the next decade. While this policy directly serves the interlinked objectives of *Fiji's National Development Plan, Nationally Determined Contribution* under the Paris Agreement, *National Climate Change Policy 2018-2030*, and *National Green Growth Framework*, it also supports the relevant specific targets that constitute the 7<sup>th</sup> Sustainable Development Goal (SDG7): *Clean Energy*.

To adapt the energy sector to the demands and requirements of a carbon-constrained world various sectors and actors must play a role in the transition. This policy adopts an inter-sectoral approach to energy and considers the various social, environmental, and economic factors that will shape and be shaped by Fiji's energy sector.

Due to the similarly intersectoral implications and impacts of climate change, Fiji's National Energy Policy is oriented around five inter-related policy pillars: **1) energy security and resilience, 2) energy access and equity, 3) energy sustainability, 4) energy efficiency, and 5) energy governance**. The strategies and intent of this policy seek to support human well-being and economic productivity while also seeking to minimise both the negative localised impacts of fossil fuel use on current and future generations. Given the scale and intensification of climate change impacts on the Pacific region, Fiji's infrastructure must be adapted to withstand intensified hazard events, changing climatic patterns, and evolving energy demand and supply scenarios. While this is no easy task, Fiji is blessed with abundant indigenous forms of renewable energy and is in the process of scaling up efforts to reshape its energy sector to address and satisfy changing energy demand parameters and requirements.

## Policy Development Process

The development of the National Energy Policy 2020-2030 (NEP) has been led by the Department of Energy (DOE) in close cooperation with the Ministry of Economy and its Climate Change and International Cooperation Division and guided by the supervision of the *National Energy Policy Steering Committee* which is comprised of representatives from:

- The Department of Energy
- The Department of Transport
- The Department of Trade
- The Department of National Trade and Measurement Standards
- The Department of Tourism
- Energy Fiji Limited
- Fiji Revenue and Customs Service
- Fijian Competition and Consumer Commission
- The Global Green Growth Institute
- The Climate Change and International Cooperation Division, Ministry of Economy
- The Budget and Planning Division, Ministry of Economy
- The Reserve Bank of Fiji
- Fiji Bureau of Statistics
- Water Authority of Fiji
- Land Transport Authority
- Maritime Safety Authority of Fiji

While the oversight for this policy is held by DOE, its implications, and the execution of its associated Strategic Action Plan (SAP) will require the involvement of a range of ministries and various stakeholders and actors across the public and private sectors.

The national review of Fiji's NEP objectives began with an inception workshop in July 2020 which was followed by one-on-one meetings with key stakeholders. A national consultation on the NEP was held in December 2020. In tandem with the review of the NEP, the consultation supported the development of *Fiji's SDG7 Roadmap*. This roadmap was designed around the development of specific future scenarios and served as a key technical input for this policy. In addition to the development of the SDG7 Roadmap, this policy also has derived its technical basis from the *Fiji Energy Sector Overview Report* produced in November 2020 with updated data on Fiji's energy sector. Following the various consultations and analysis of key data, the National Energy Policy Steering Committee was again convened in April 2021 and a process was agreed for drafting the new policy. Additional follow-up one-on-one consultations were held to further define policy priorities. The first draft of this policy was presented to the steering committee in June 2021 before being circulated to stakeholders for feedback. Feedback was collected through online-surveys, written submissions, and via three online consultation workshops before a validation workshop was convened to finalise the policy objectives. Second and third drafts were produced in response to consultation outcomes alongside the development of a *framework* Strategic Action Plan. The final draft of this policy was then sent to cabinet for endorsement.

## National Energy Policy 2021-2030 Development Process

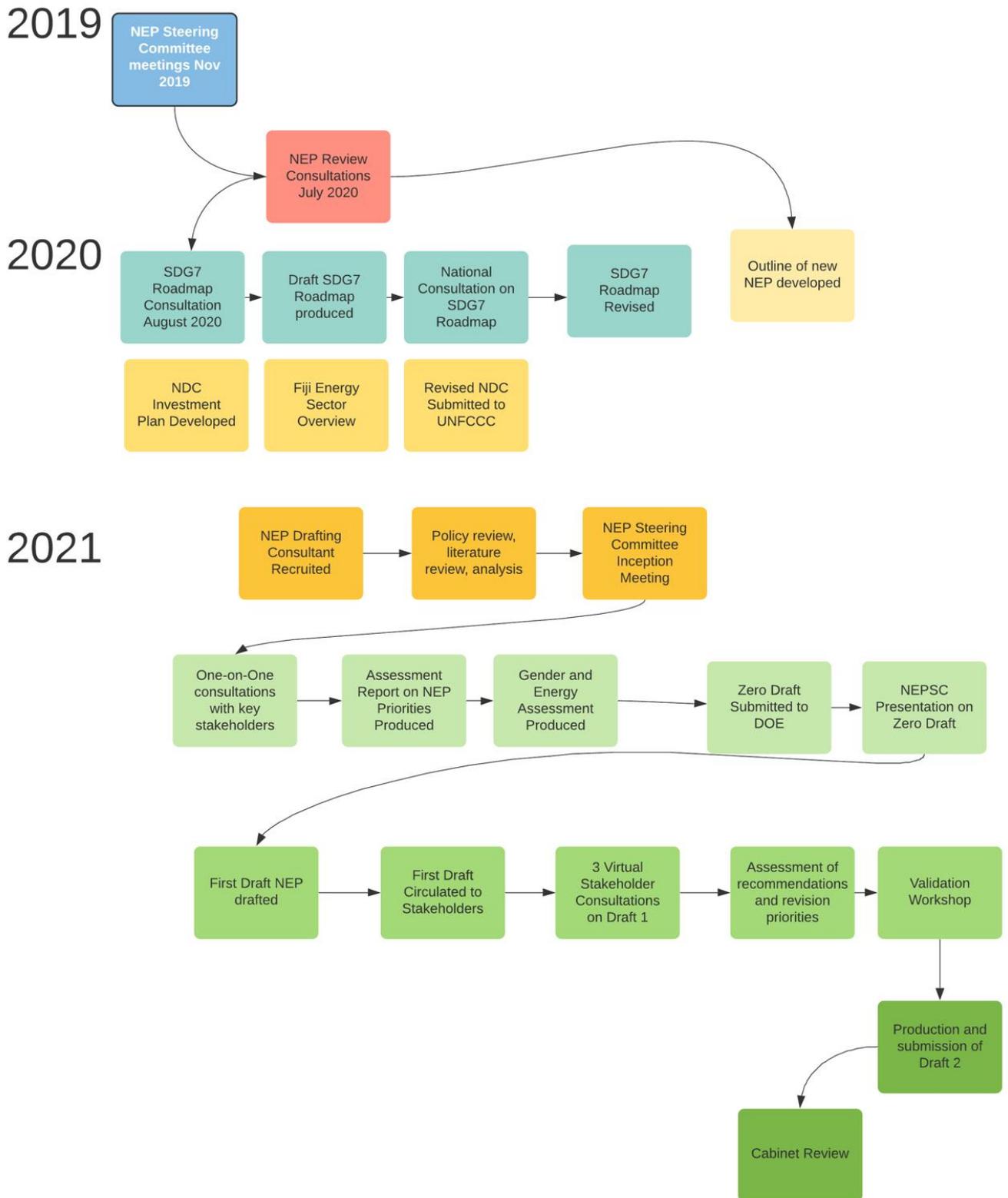


Table 1 Flow chart depicting stages of the NEP development process

## Policy Scope, Mandate, and Purpose

Fiji's first standalone National Energy Policy was endorsed in 2006. Past versions of Fiji's NEP have addressed immediate electricity sector development challenges, sought to meet projected changes in electricity demand, and focused on protecting consumer interests. The Fijian Government's energy objectives were influenced by the vision of Fiji's *Green Growth Framework* (2014) and its emphasis on energy security and sustainable transport. Although a draft NEP was produced in 2014, this is the first NEP to be endorsed by Cabinet since the:

- 2015 submission and 2020 revision of *Fiji's Nationally Determined Contribution* to the Paris Agreement,
- The launch of *Fiji's National Development Plan* (2017)
- the 2017 amendments to *Fiji's Electricity Act*,
- the endorsement of *Fiji's Implementation Roadmap (2017-2030)*
- the development of *Fiji's Low Emissions Development Strategy* (2018)
- the launch of *Fiji's first National Adaptation Plan*,
- the endorsement of *Fiji's National Climate Change Policy (2018-2030)*
- and the Fijian Government's divestment in the Fiji Electricity Authority and the corporatisation of Energy Fiji Limited

In addition to these key policies, legislation, national decarbonisation targets, governance changes, and the further analytical products developed during 2020 NEP consultations, this policy has been informed by the global development framework instituted through the launch of the *Sustainable Development Goals*.

The aforementioned policy landscape serves to further focus the mandate of the NEP on the need to improve the enabling environment for low carbon transition while also supporting 100% of the population to access affordable and reliable sources of energy.

The resulting purpose of this national policy is to provide the overarching guidance required to increase efficiency, support inclusivity and gender equity in relation to energy and the energy sector, scale-up and diversify Fiji's renewable energy portfolio, and support Fiji's long-term energy resilience and security. To do so, the NEP identifies strategies that seek to leverage socio-economic co-benefits from activities to reduce fossil fuel dependency, protect supply and demand, and scale up access to renewable energy.

Table 2 Changing Scope of Fiji's National Energy Policy 2006-2021

<b>Scope of Policy Objectives</b>	<b>National Energy Policy 2006</b>	<b>Draft National Energy Policy 2014-2020</b>	<b>National Energy Policy 2021-2030</b>
<b>GOVERNANCE</b>	Strengthen capacity for energy planning	Strengthen transparency and effectiveness of regulation	Institute reforms to regulation and institutional arrangements for energy sector governance, research collaboration, and the enabling environment for innovation
<b>SECURITY OF SUPPLY</b>	Improve energy security through greater participation and collaboration within the energy industry	Increase the efficient use of energy and the use of indigenous energy sources to reduce the financial burden of energy imports	Protect Fiji's long-term energy resilience and security, manage rising energy demand, and reduce fossil fuel dependency
<b>SOCIO-ECONOMIC</b>	Increase access to affordable and reliable electricity services	Provide all Fijians with access to affordable, reliable and modern energy services	Enable access to reliable and affordable energy services, leverage socio-economic benefits, support inclusivity and gender equality within the governance and operations of the energy sector
<b>ENVIRONMENT</b>	Research promotes and utilise renewable energy services	Establish environmentally sound and sustainable systems for energy	Scale-up and diversify Fiji's renewable energy portfolio, decarbonize the transport sector, and reduce national emissions in keeping with Fiji's Nationally Determined Contribution to the Paris Agreement. Increase national energy efficiency in support and alignment with Fiji's NDC targets.

# An Overview: Fiji's Energy Context Today and Tomorrow

***'Fiji has abundant renewable energy resources, and recent assessments have shown that a combination of solar, wind, geothermal, marine, biomass and biofuel could be used to meet the islands' energy needs while decreasing electricity costs, increasing energy access and promoting energy independence.'***

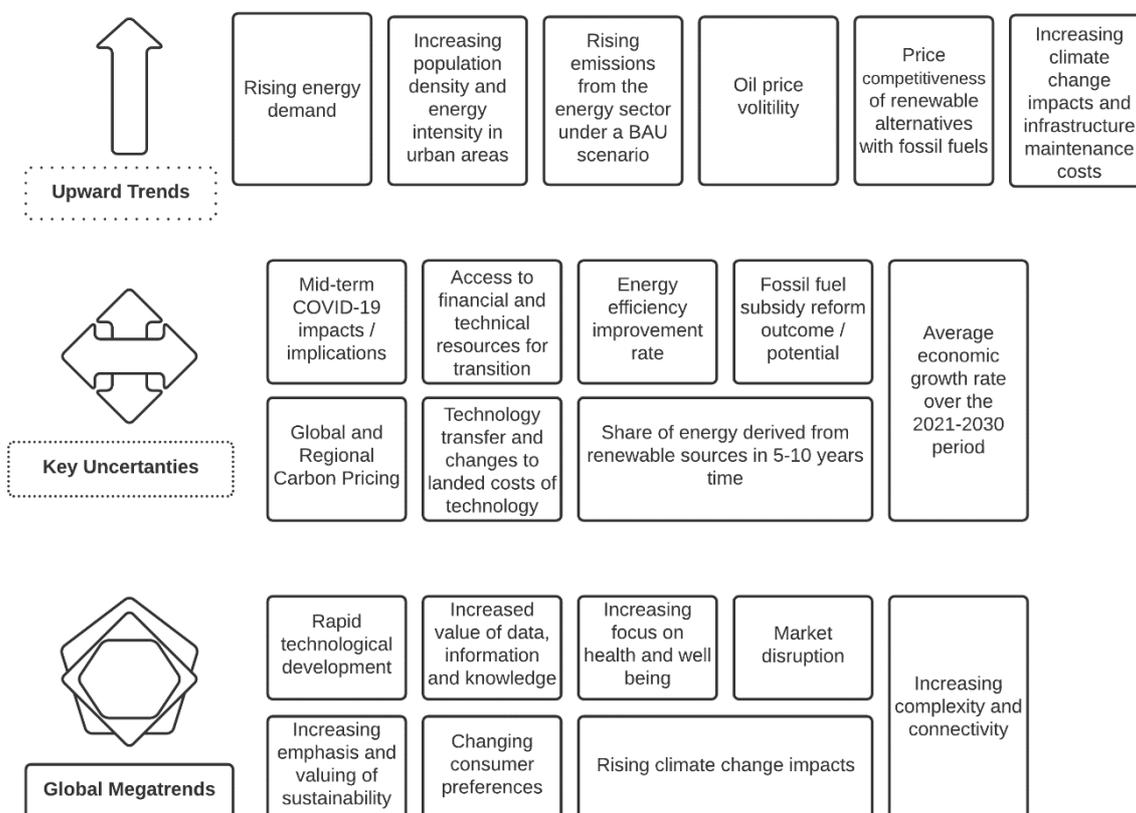
*Human rights council, Visit to Fiji, 2020*<sup>1</sup>

Fiji is a Small Island Developing State (SIDS) with a growing economy and population. The availability, accessibility, and reliability of energy services are essential for Fiji's economy and the well-being of all Fijians. Fiji's economy and energy sector faces many challenges and will continue to be shaped by various local, regional, and global trends, risks, uncertainties, and dynamics. The severe economic implications of the COVID-19 pandemic, increasing average annual costs of climate and disaster impacts, and increasing economic distortions at the global level create a particularly unclear outlook for the purposes of mid-term policy development. In keeping with objective 1.4 of Fiji's *National Climate Change Policy 2018-2030* which calls for the improved national capacity for strategic foresight and suggests the need for scenario development exercises to help overcome the limits and uncertainty of traditional data and existing trends this policy has been guided by a range of foresight-focused tools and exercises – including scenario-development and analysis, horizon scanning, and the consideration of megatrends. In addition to novel desktop and consultation based activities this policy has benefited from the consideration of various scenarios developed in recent analytical documents including Fiji's *Climate Vulnerability Assessment (2017)*, the four scenarios developed to inform Fiji's *Low Emissions Development Strategy (2018)*, and a further four national-level policy scenarios developed as options under Fiji's *SDG7 Roadmap (2020)* developed with the support from the United Nations Economic and Social Commission for Asia and the Pacific (UNESCAP). A selection of the key trends, uncertainties, and megatrends considered when developing the NEP objectives are presented in the graphic below. The ensuing sections provide an overview of the issues and challenges this policy seeks to address.

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<sup>1</sup> *Report of the Special Rapporteur on the issue of human rights obligations relating to the enjoyment of a safe, clean, health and sustainable environment*

Table 3 Summary overview of key trends, uncertainties, and megatrends considered by the NEP 2021-2030



### **Demographics and Energy Demand**

According to the 2017 national census Fiji’s population grew from 837,271 to 884,887 between 2007 and 2017. As of 2019, 56.7% of Fiji’s population resided in urban areas with the remainder living in rural areas and outer islands. Based on existing trends, current and expected climate change impacts, and changing socio-cultural preferences, the growth of Fiji’s urban population is expected to accelerate as people move from rural areas to cities and towns over the next decade. At the time of writing Fiji’s urbanisation growth rate was calculated at approximately 1.6%<sup>2</sup> and is projected to remain the highest of the Pacific Island nations over the coming decade. While this rate may deviate over the coming decade the rate is not expected to fall below 1% and could rise to 2-3% as climate change continues to disrupt rural livelihoods.

This existing and projected change in demographic composition between the rural and urban areas of Fiji is projected to be an important factor in shaping the future demand composition of Fiji’s energy sector. Other key determinates and drivers of change to energy demand include the closely interrelated implications of changes to Fiji’s tourism, productive, and industrial sectors. A baseline assumption used in the design of this policy is that approximately 60% of Fiji’s population (which is expected to grow at around .6% annually)

<sup>2</sup> World Bank, 2021

will likely reside in urban areas by 2030. The policy scenarios considered also do not preclude the potential for this percentage to be higher. This dynamic suggests there will be increasing centralisation and intensification of total energy demand in Fiji around urban centres.

Fiji’s SDG7 Roadmap presents a projection of the likely change in energy demand by sector under a business as usual (BAU) scenario over the next decade (see Figure 1). This analysis suggests that energy demand will increase at a relatively consistent rate based on average economic growth projections (approximately 3.5%). The impact of the COVID-19 pandemic on short to mid-term growth may curtail demand however, some degree of annual growth is expected over the 2021-2030 period. The ‘business as usual’ scenario modelled through the SDG7 Roadmap and presented by Figure 1 below, expects the transport sector to account for 69% of total final energy consumption in 2030. Of this percentage share, land transport would be responsible for approximately 77% of transport demand.

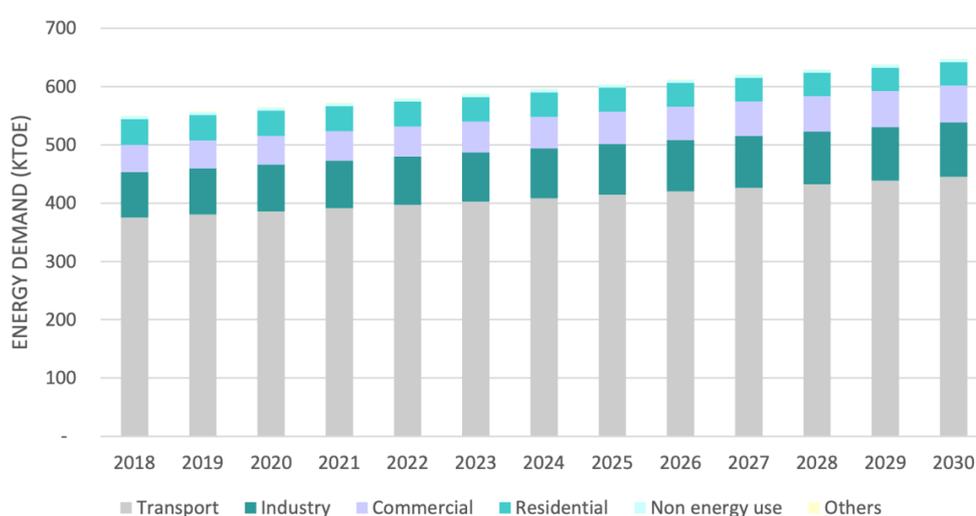


Figure 1 Projected energy demand by sector under a BAU scenario (SDG7 Roadmap)

### **Energy Sources and Services**

In 2018, 57% of all electricity generated in Fiji was from renewable energy sources. However, despite a high percentage of Fiji’s overall electricity production being derived from hydropower, Fiji’s economy is highly reliant on imported fossil fuels for overall energy production as electricity consumption constitutes only 16.5% of total final energy consumption. When considering the broader energy use picture (inclusive of thermal generation of electricity, transport fuels, industrial processes, and agricultural activities), renewable energy sources contributed to approximately 11.4% of the total primary energy supply.

Global market dynamics have a major impact on remote island states as their access to fossil fuels is often dependent on a single supply chain, limited by basic storage capacity, port facility limitations, a lack of purchasing power, and restricted by distance to market / infrequent resupply opportunities. The impact of the COVID-19 pandemic has highlighted the vulnerability of global supply chains. Fiji currently enforces higher fuel standards than all surrounding countries with the exception of New Zealand. This dissonance between fuel

standards can be problematic if Fiji or another nearby country experiences a fuel shortage or supply chain disruption as it reduces the potential for inter-island contingency planning. This situation contributes to the rationale for neighbouring countries to consider improving their fuel standards in the interest of both environmental harm reduction and increased interoperability of regional supply. The situation is a further risk to energy security and one that increases the rationale for reducing fossil fuel dependency in the interest of increased energy independence.

#### National Fuel Imports from 2016 to 2019

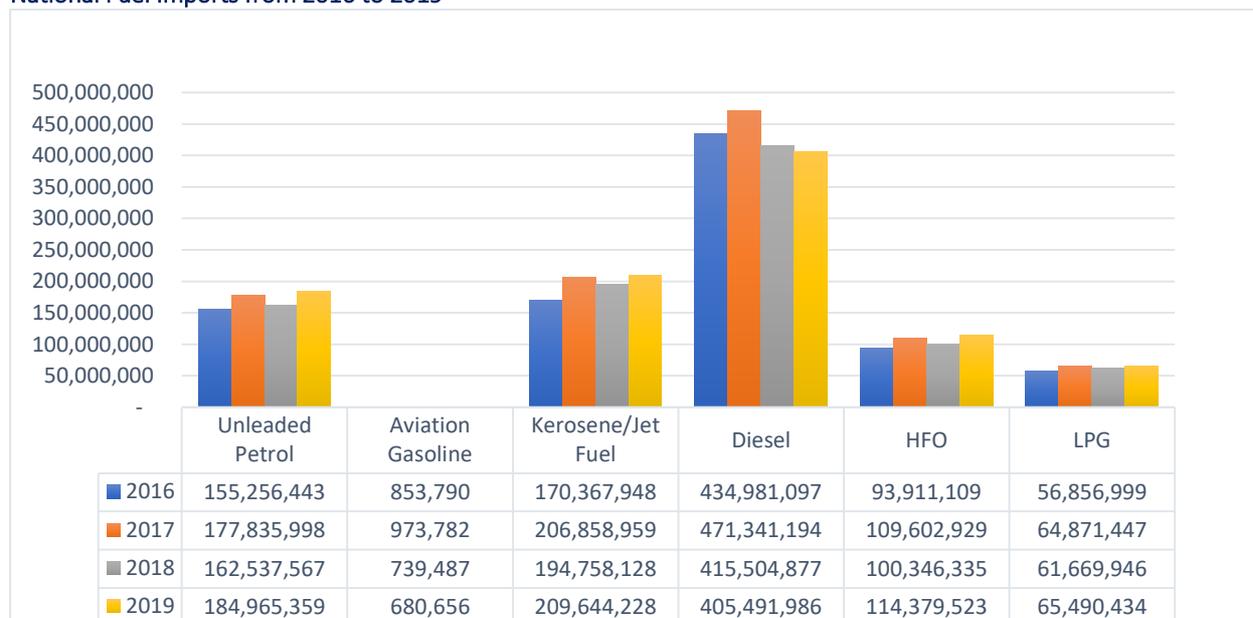


Figure 2 - Total fuel imported into Fiji for domestic use (excludes fuel used for international transport) 2016-2019 (Fiji Revenue and Customs Service, 2020)

The composition of Fiji’s cumulative fuel type imports over the 2016-2019 period has varied slightly with around 60% of total fuel consumption attributed to the transport sector which alone accounts for roughly 65% of Fiji’s cumulative national emissions. In 2019, petroleum products made up approximately 20% of Fiji’s total imports. The overall energy demand from Fiji’s transport sector is expected to grow by close to 10% by 2030 under a BAU scenario.

Annual land transport vehicle registrations increased from 101,425 in 2015 to 131,687 in 2020 (LTA 2021). The average age of private cars on Fiji’s roads is 15.4 years and the vast majority of all drivers and vehicles are based on Viti Levu in and around the Suva and Nadi/Lautoka corridors.

Vehicle Type	Average Age (years)
Buses	16.5
Private Cars	15.4
Trucks (7.5 tonnes +)	14.7
Taxis	12.9
Carriers	12.1
Minibuses	9.1

Figure 3 Average age of vehicles on Fiji’s Roads (LTA 2021)

Connectivity between islands is to a large degree dependent on small private vessels, ferries, and Government Shipping Services (GSS). Fiji does not have a car manufacturing or shipbuilding industry and relies on used and new imports from overseas. Fiji's domestic aviation sector is also important for inter-island mobility and is vital for enabling key tourism operations in outer islands. There are opportunities to improve the efficiency of domestic aviation operations, aircraft performance, and infrastructure.

Overall fuel usage monitoring and data systems in Fiji are under-developed and the transition to clean and efficient transport technology is impacted by high costs of capital, a lack of effective fiscal and monetary policy to incentivise transition, and a lack of required supportive infrastructure.

### **Energy Resilience and Security**

Improving and maintaining national energy security is contingent on an efficiently functioning energy market, the development and maintenance of appropriate infrastructure, and the availability and affordability of the resources required to provide electricity and fuel for transport. The most significant threats to Fiji's energy security are climate change impacts and disaster events, infrastructure deterioration, oil price volatility and market uncertainty, dependency on fuel imports, lack of capacity and access to new technologies, grid investment needs, and changing/rising energy demand.

The impacts of climate change pose a number of threats to Fiji's energy security. Disaster events such as cyclones that continue to be intensified by climate change, have increased pressure on Fiji's energy infrastructure and have led to increased current and projected expenditure on improving infrastructure resilience. Energy Fiji Limited recorded over FJD 30m in damages to energy infrastructure following Cyclone Winston in 2016. Additionally, other implications of climatic change such as shifting annual rainfall patterns will continue to create more dramatic variance and potential disruption for hydropower production. A further consideration is the way in which intensified disaster events, health crises, and global market uncertainty have driven up the potential disruption to fossil fuel supply chains and increased oil price volatility.

Addressing climate and disaster risks will require the development of new infrastructure standards, will increase the need for insurance protection for key infrastructure, increase the need to improve redundancy and reduce single-point vulnerability within electricity grids and transport infrastructure, as well as increase the overall annual investment required to maintain and protect key energy assets. Maintaining and improving Fiji's energy security is highly dependent on securing the technical capacity and financing required to take advantage of new energy technologies to help increase efficiency and improve infrastructure resilience.

Energy security is intrinsically linked to the provision of vital services such as healthcare and education. On-grid electricity and diesel generators provide power to pumping systems that are vital to water access for a large proportion of the population. The Fiji Water Authority is the largest consumer of on-grid electricity in Fiji and there are freshwater resources that are of interest for energy production as well as sources of fresh water. Airports Fiji Limited operates critical transport services and is a major energy consumer which also has potential

to produce renewable energy. In light of new risks, there is significant need to support hospitals and healthcare facilities, schools, ports, water infrastructure, and airports as well as other major energy consumers to assess the viability of energy production from existing premises and assets under management.

### **Energy Access and Equity**

In 2017, 95.3% of Fiji’s population had access to electricity. Between 2017 and 2018 access has increased further with over 96.3% of the population having access to on-grid, mini-grid, and off-grid electricity sources. The use of open fires, wood stoves, and kerosene for cooking fuel in Fiji continues to pose health risks, cause local environmental degradation, and contribute to Fiji’s carbon emissions. While the uptake of cleaner cooking fuels has increased over the years, a significant proportion of the rural and maritime population is reliant on unclean cooking fuels due to limited access to alternatives and the costs involved with using electric cooking appliances.

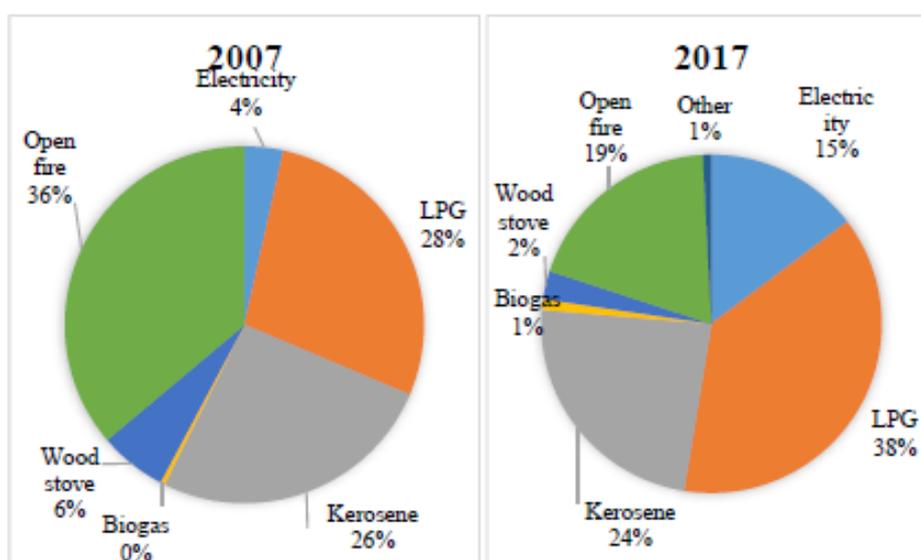


Figure 4 Percentage of total households using particular cooking fuels in Fiji in 2007 and 2017 (Fiji Bureau of Statistics, 2017)

Access to energy services plays an important role in supporting human well-being as these services, directly and indirectly, support and enable economic activity, mobility, child literacy, access to drinking water, communications, cooking, health, social empowerment, and various other dimensions of everyday life.

Energy poverty has been found to have a disproportionately negative impact on women in part because a lack of energy access often means that women and girls are likely to shoulder time-consuming tasks such as collecting biomass for cooking. Time and physical exertion involved with supporting household energy needs can reduce women and girls’ access to education, employment, and worsen the existing inequality they experience in society. As a result, access to affordable, reliable, and clean energy can play a significant role in protecting, empowering, and supporting the lives and livelihoods of women and girls. Gender equality is

essential for the prosperity and sustainability of society and the foundation for this equality is in part contingent on safe and affordable energy access and efforts to ensure that women play a role in the decision-making, responsibilities, and activities involved with securing this access. Achieving universal access to electricity and transport services will continue to require close consultation with rural and outer island communities.

In addition to achieving universal access to energy services and the commitment to reduce current emissions, rising energy demand, and the resulting impact on future emissions, specific investments and activities will be required to maintain grid stability and reliability in the face of increasing climate and disaster risks.

### **Energy Sustainability**

Based on current demand projections under a BAU scenario national emissions would rise over the coming decade.

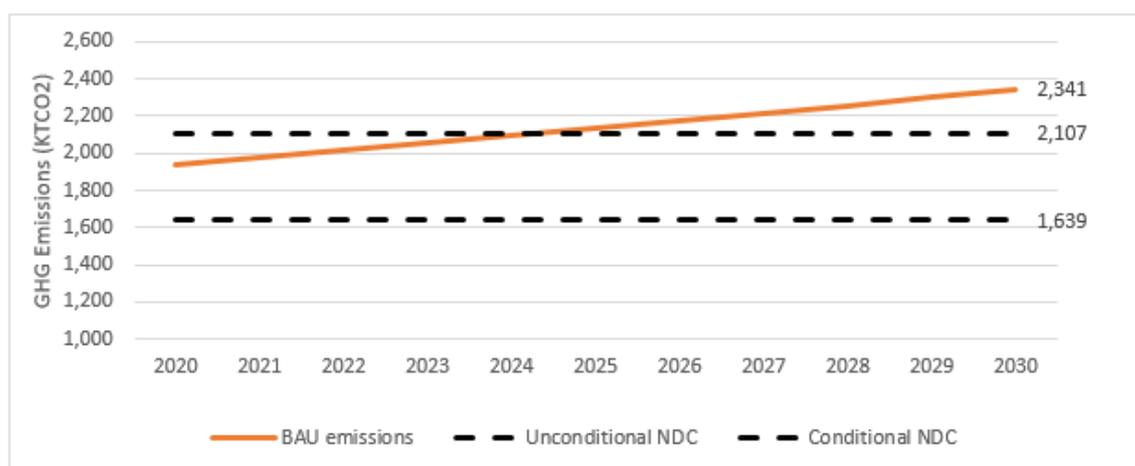


Figure 5 Projected BAU emissions in relation to Fiji's unconditional and conditional NDC targets (SDG7 Roadmap, 2020)

The global imperative to mitigate the impacts of climate change has created incentives to divest in fossil fuels, transition energy systems to renewable power sources, as well as increase the availability of concessional finance and grants to support the renewable energy transition in developing countries.

In addition to contributing to the collective action required to limit global average temperature rise to below 1.5c, increasing the share of renewable energy sources in Fiji's electricity and transport systems offers a range of potential benefits. Fiji's *Low Emissions Development Strategy* concludes that Fiji's ability to achieve its sustainable development priorities is contingent on the ability to decouple economic growth from greenhouse gas emissions. Fiji's *National Climate Change Policy 2018-2030* clarifies that national strategy and approach to reducing greenhouse gas emissions will prioritise activities that increase national resilience and create co-benefits for the economy, environment, and human well-being.

Fiji's 2015 NDC and 2020 enhanced NDC, confirm Fiji's commitment to reducing 30% of the BAU CO<sub>2</sub> emissions derived from the energy sector by 2030 (based on 2013 baseline) and to achieve this target by transitioning grid-connected electricity production to as close to 100% renewable sources as possible (20%) and to make up the remaining target through energy efficiency improvements (10%). By 2050, Fiji intends to achieve net-zero national emissions. These targets are conditional and dependant on access to finance and capacity building. Based on the levelised costs of renewable electricity production in Fiji, these targets offer economic as well as environmental benefits.

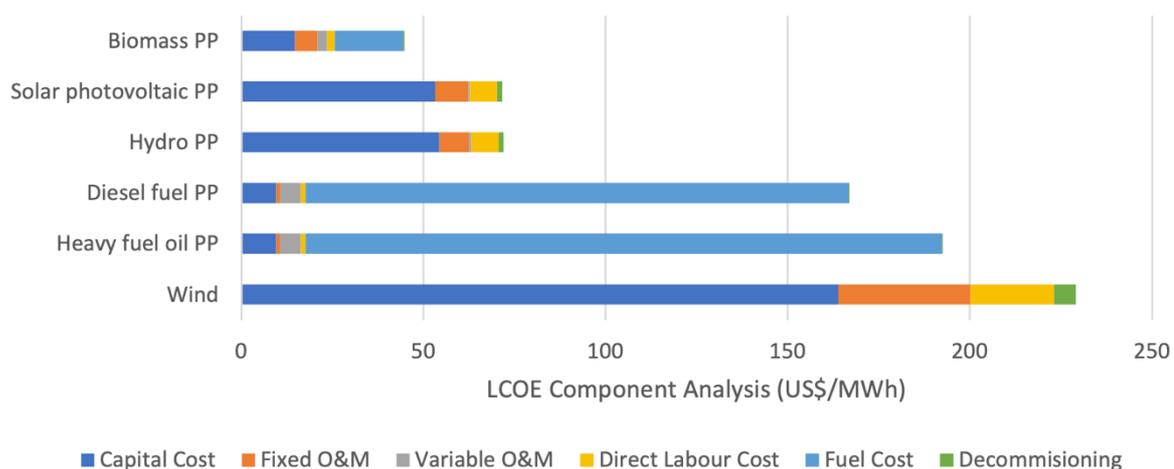


Table 4 Levelised costs of electricity by technology (SDG7 Roadmap, Fijian Government, 2021)

At the national level achieving these targets will require the development of new standards, innovative financing mechanisms, legal frameworks, and regulations to help increase private sector investment and improve eligibility to access major international sources of climate finance.

The further integration of variable renewable energy (VRE) capacity into Fiji's electricity grids, the development of mini-grids, and eventual linkage between renewable electricity production and the use of electric vehicles will require significant systemic transitions to Fiji's energy sector. Fiji's National Energy Policy is key to the enabling the 'software' and 'architecture' required to scale up the investment and introduction of new 'hardware' required for VRE integration.

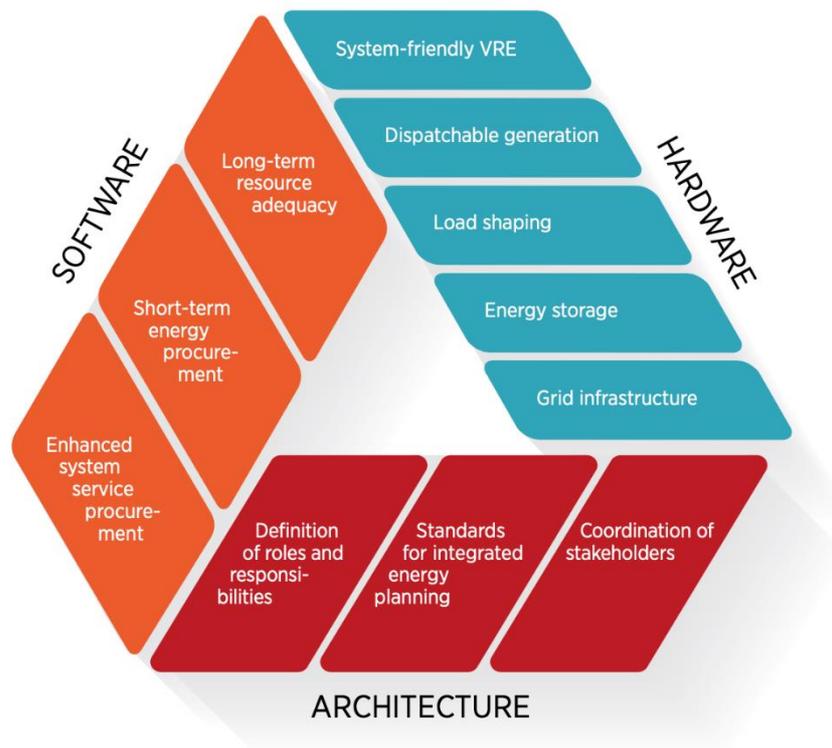


Table 5 Elements of VRE system integration (IRENA, 2018)

### **Energy Efficiency**

There is significant potential in Fiji to improve transport efficiency overall and improving transport efficiency, especially in relation to the land and marine transport sectors, is key to the achievement of Fiji's NDC.

Beyond success implementing and enforcing some limited electrical appliance efficiency standards in Fiji, little progress has been made overall to improve demand-side energy efficiency due in part to a lack of a clear verifiability framework and incentives. Significant efficiency gains can be achieved through improved enforceable standards and energy consumption management for lighting, televisions, air conditioners, and refrigerators.

There are major efficiency gains that can be made through further standards and regulation to reduce the carbon footprint of the building sector and improve overall efficiency of buildings through passive building design features and operational efficiency improvements in existing buildings and public infrastructure.

Supply-side efficiency improvements remain a priority interlinked with Fiji's broader energy security objectives and will become an increasing focus and investment priority as existing electricity and transport infrastructure ages and is increasingly impacted by hazard events.

## Energy Governance

The oversight and governance of Fiji's energy sector involve a range of stakeholders with differing, often complementary, and sometimes divergent interests and motivations. As is the case in most national contexts, the oversight of Fiji's energy sector is defined by the 'energy trilemma' which requires continual efforts to balance the challenges of energy security, energy sustainability, and energy access/equity.

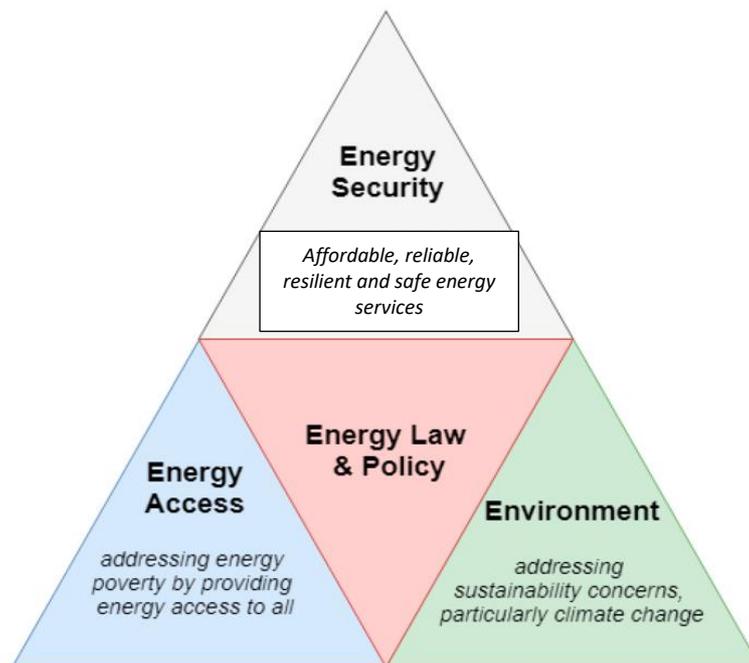


Figure 6 The 'Energy Trilemma' (Setyowati, 2020)<sup>3</sup>

For national energy governance and institutional architecture to provide the effective oversight of these issue areas, close coordination and alignment among the different actors and their responsibilities is required.

The Fijian Government's divestment in Energy Fiji Limited and the increasing opportunity for new investors and power producers to influence and support Fiji's energy sector increases the need for strategic coordination. This NEP serves to, in part, revise and redefine the role of the Department of Energy clarifying key objectives for the department to deliver through cross-government engagement and intersectoral collaboration.

Ongoing efforts to improve strategic oversight of the sector as well as efforts to improve the enabling environment for private investment in Fiji's energy sector are required and will involve the design and introduction of new standards and regulation. Additionally greater commitment and promotion of localised research and context-relevant innovation is now required to ensure Fiji can continue to benefit from technology transfer and improve the ability to design and take forward a more dynamic approach to energy sector development over the coming decades.

## Existing Policy Objectives and Targets

This policy supports the achievement of the following existing national policy commitments (non-exhaustive, key alignment points only).

Key National Policies, Plans, Strategies, Legislation	<i>Objective / Target</i>
A Green Growth Framework for Fiji (2014)	Support energy security through reduced fossil fuel dependence, private sector engagement, energy efficiency improvements, biofuel projects, sustainable rural electrification schemes.  Promote sustainable transport solutions through the increased use of fuel-efficient vehicles, alternative fuels, public transport, non-motorised transport options, aviation management plans, efficient marine transport operations, and integrated transport models.
5-Year and 20-Year National Development Plan (2017)	<i>A resource-efficient, cost-effective and environmentally sustainable energy sector</i> <i>Access to transportation through an efficient and sustainable transport network</i>
Low Emissions Development Strategy (2018-2050)	<i>To reach net-zero carbon emissions by 2050 across all sectors of [Fiji's] economy</i>
Maritime and Land Transport Policy (2015)	<i>To review government subsidies for transport</i> <i>To attract investors to provide alternative transport options</i> <i>To promote the use of fuel-efficient vehicles</i> <i>To reduce fossil fuel consumption and encourage alternative fuels for the transport sector</i>
National Adaptation Plan (2018)	<i>Create a long-term resilience strategy for the energy sector underpinned by a climate risk model</i>
National Climate Change Policy (2018-2030)	<i>To derive 100% of national electricity production from renewable energy sources by 2030 and achieve net-zero annual greenhouse-gas emissions by 2050</i> <i>To decarbonise Fiji's transport sector</i> <i>To prioritise greenhouse-gas mitigation initiatives that increase national resilience and help achieve the SDGs</i>
National Electricity Act (2017)	<i>To promote the development of the electricity industry by the appointment of an independent regulator to license the generation, transmission and supply of electricity and for related matters</i>
National Gender Policy (2014)	<i>Promote active and visible gender mainstreaming in all sectors and within civil society to ensure agency for gender equity and equality in all spheres of national life</i>
Nationally Determined Contribution (2020)	To reduce business as usual CO <sub>2</sub> emissions by 30% by 2030. With 10% achieved unconditionally using available resources and 20% achieved 'conditionally'. To achieve net-zero greenhouse gas emissions by 2050
Fiji Tourism 2021	<i>Ensuring the continued sustainable development of the tourism industry</i>
<b>Regional / International Frameworks, Declarations, and Goals</b>	

The Framework for Resilient Development in the Pacific	<i>More efficient end-use energy consumption, reduced carbon intensity of development processes, increased conservation of terrestrial and marine ecosystems and increased resilience of energy infrastructure</i>
Pacific Leaders' Gender Equality Declaration 2012	<a href="https://www.forumsec.org/2012/08/30/pacific-leaders-gender-equality-declaration/">https://www.forumsec.org/2012/08/30/pacific-leaders-gender-equality-declaration/</a>
SIDS Accelerated Modalities of Action (S.A.M.O.A.) Pathway	<i>We recognise that dependence on imported fossil fuels has been a major source of economic vulnerability and a key challenge for small island developing States for many decades and that sustainable energy, including enhanced accessibility to modern energy services, energy efficiency and use of economically viable and environmentally sound technology, plays a critical role in enabling the sustainable development of small island developing States.</i>
Framework for Energy Security and Resilience in the Pacific (FESRIP) 2021-2030	<i>Goal: Universal access to secure, robust, sustainable, and affordable electricity, transport fuel and household energy services that are resilient to climate change and natural disasters, increasingly supplied by renewable energy resources, with improved energy efficiency, and upgraded energy infrastructure and improved technologies.</i>
Agreement on Climate Change, Trade and Sustainability (ACCTS)	<p><i>The ACCTS is aimed to address trade policy, rules and architecture in order to achieve the goals of the Paris agreement and facilitate increased trade contributing to sustainable development. It is currently being negotiated by Fiji, New Zealand, Iceland, Costa Rica, Norway and Switzerland</i></p> <p><i>The goals of the ACCTS include the establishment of disciplines to eliminate harmful fossil fuel subsidies, removal of tariffs on environmental goods, the establishment of new and binding commitments for environmental services; and development of voluntary eco-labelling programmes and mechanisms.</i></p> <p><u>ACCTS Joint Leaders Statement:</u>  <a href="https://www.beehive.govt.nz/sites/default/files/2019-09/ACCTS%20joint%20leaders%20statement.pdf">https://www.beehive.govt.nz/sites/default/files/2019-09/ACCTS%20joint%20leaders%20statement.pdf</a></p>

## Mission

**To oversee and direct the strategic and effective development of Fiji’s energy sector in the service of all Fijians.**

## Vision

The *National Energy Policy Steering Committee* and stakeholders consulted during the policy review process have focused this policy on the need to ensure access to affordable, reliable and sustainable energy services. As a result, key stakeholders have agreed on the following articulation of the vision for the NEP 2020-2030. This vision forms the basis of the approaches and objectives that this policy addresses and is closely aligned with the energy objective described in Fiji’s *National Development Plan*:

***A resilient resource-efficient, cost-effective, accessible, reliable and environmentally sustainable energy sector for all Fijians***

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## Policy Principles

### **1. *Affordability***

All activities conducted to deliver the objectives of this policy will consider the various dimensions of affordability when considering the implications of the activities and objectives for all parties involved. Least-cost options and technologies will be used to optimise resource use. Affordability will be understood through a robust evaluation of social, environmental, and economic trade-offs and will not be confined to the analysis of direct costs only.

### **2. *Competitive neutrality***

In shaping the development of Fiji's energy sector, the Fijian Government will pursue strategies that seek to promote and maintain a level playing field within Fiji's energy market where possible. The principle of competitive neutrality with the *Fijian Competition and Consumer Protection Policy Statement* which recognises that in some cases market intervention maybe required to protect consumer interests. Where possible this policy promotes fair competition between the relevant stakeholders involved with energy production, distribution, storage, and consumption.

### **3. *Energy access for all***

The Fijian Government is committed to ensuring that all Fijians have access to affordable, reliable, safe, and clean energy and will uphold this objective as a core principle when prioritising the use of resources. This principle also specifically relates to and recognises the importance of enabling communities, energy consumers, companies, and public services to produce energy from indigenous renewable energy resources as well as the strategic value of public-private partnerships.

### **4. *Gender equity, equality, and empowerment***

The Fijian Government is committed to gender equity and equality and through this National Energy Policy seeks to reduce the specific burdens, barriers, inequities, and norms that impact the way women and girls interact with energy services, experience energy poverty, access employment opportunities within the energy sector, and take part in energy-related decision-making. This policy will empower women and girls through activities and approaches that create new opportunities, are responsive to the underlying sources of gender issues, and recognise the complexity of the gender-energy nexus.

### **5. *Just Transition***

As new technologies become available and Fiji takes steps to transition its economy to address key issues and take advantage of new opportunities, the Fijian Government will identify strategies and policies that protect Fiji's consumers, workforce, and youth from potentially adverse consequences of change and instead seek to create the enabling environment for Fiji's workforce to benefit directly from an influx of new opportunities.

### **6. *Renewable Energy and Sustainability***

This policy recognises that scaling up access to renewable energy sources is crucial to supporting Fiji's long-term socio-economic development priorities. Ensuring the sustainability of Fiji's economy is dependent on behaviours, energy services, and governance arrangements that seek to minimise environmental harm. In Fiji's pursuit of affordable, durable, and resilient energy solutions, all appropriate efforts to minimise detriment to the environment will be taken. By transitioning to renewable energy sources, Fiji will decouple energy security and economic growth from environmental harm and instead harness indigenous and sustainable energy sources for the benefit of all Fijians.

## Policy Pillars

This policy is structured around the following policy pillars and focus areas.

### ***Energy Security and Resilience***

This NEP supports the economic viability and development of the energy sector recognising the need to further develop the national energy market and energy services while also increasing reliability and risk resilience of electricity and transport systems through adjusted maintenance regimes and infrastructure investments. Fiji's long-term energy security is dependent on upholding safety standards, managing fuel costs, reducing dependency on imported fuels, improving contingency measures in the event of disruption, and minimising vulnerabilities to climate and disaster risks within Fiji's energy systems and services.

### ***Energy Access and Equity***

This NEP supports the commitment to ensure that 100% of the population has access to affordable, reliable, safe, and clean energy services. The NEP promotes inclusivity within the energy sector through strategies intended to maintain services at affordable rates, specific objectives to support fair consultation with stakeholders in reference to energy development planning, commitment to scale-up access to clean cooking alternatives, and commitments aimed at improving gender inclusivity and balance within the energy sector workforce. The NEP supports economic activity and interconnectivity through objectives and strategies aimed at reducing congestion and air pollution, improving access to transport, and supporting behavioural changes that will create benefits for human health while also supporting Fiji's environmental integrity.

### ***Energy Sustainability***

This NEP supports the technological transition of energy services to renewable energy sources in direct support of Fiji's NDC and *National Climate Change Policy 2018-2030*. To do so, the NEP targets and promotes the uptake of innovative financing solutions to scale up renewable deployment in Fiji and promotes initiatives to reduce national emissions and reduce the impacts of the energy sector on the local environment. Fiji's pursuit of energy sustainability will contribute to improved economic prosperity and will support access to new technologies.

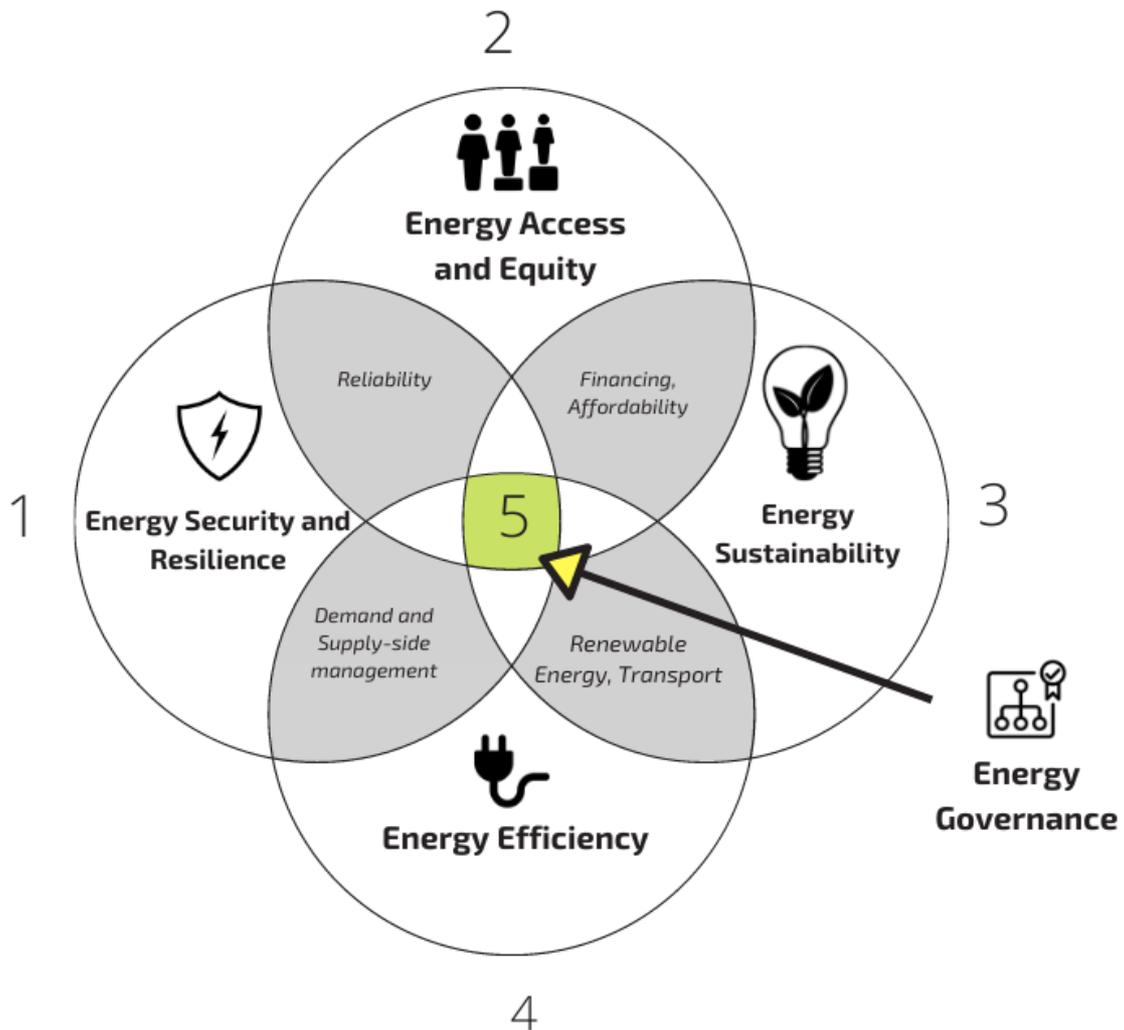
### ***Energy Efficiency***

This NEP supports both energy sustainability and energy security objectives through a specific focus on demand-side and supply-side energy efficiency improvements. The NEP focuses on the introduction of new standards to help manage demand and sets out key objectives for improving supply-side efficiency.

### ***Energy Governance***

This NEP is a key catalyst and policy instrument for improving the enabling environment for the safe and efficient transition and development of Fiji's energy sector through objectives that support improved oversight, coordination, and policy coherence. The NEP considers existing legislation and creates opportunities to adjust law and regulation as required to support overarching policy objectives and national energy needs. The NEP is a central framework for promoting the institutional strengthening required to accelerate the resilient development and low carbon transition of Fiji's energy sector.

These five policy pillars and concepts are highly inter-related as demonstrated in the diagram below which corresponds with the five sections of this policy:



The following sections detail the s 'overarching objectives and priorities and supporting 'enabling objectives' under each policy pillar.

*The implementation of this policy will be directed and monitored through the accompanying **Strategic Action Plan** which provides further detail on the key activities and responsibilities.*

## Policy Objectives



### 1) ENERGY SECURITY AND RESILIENCE

The Fijian Government seeks to ensure Fiji's long-term energy security by increasing the availability of data and information required to support investments designed to increase the reliability and resilience of national energy infrastructure. The Department of Energy will work closely with relevant stakeholders to manage risks to the energy sector and support energy producers to maintain service reliability, increase redundancy within energy systems, improve business sustainability, and support Fiji's self-reliance and energy independence.

#### *Overarching Objectives and Priorities*

#### **1.1 To improve energy security through the active management and strategic reduction of national dependency on imported fuels.**

Reducing exposure to oil price fluctuations and dependency on complex and changing global supply chains is an economic priority that is closely intertwined with Fiji's climate-resilient development objectives. Investments in renewable energy that create clear co-benefits for national resilience will be prioritised and supported by the DOE, MOE, EFL, and other key stakeholders. DOE will maintain a macroeconomic overview of the potential options to reduce fossil fuel consumption and reliance in Fiji. This overview will help to highlight key strategies for reducing the fossil fuel intensity of GDP growth and seek to improve stability of Fiji's energy sector in light of security risks.

#### **1.2 To support the development of Fiji's energy market and promote opportunities for the private sector to invest in and contribute to energy security.**

Through the lenses of energy security, access, and sustainability, the enabling environment, incentives, and data resources required to promote competition and competitive neutrality across Fiji's electricity and transport sub-sectors will be supported. Market competition and efficiency are required to promote innovation, support consumer interests, and manage energy affordability in the interest of energy security and development. As the market regulator for both electricity and petroleum fuels, the FCCC will be supported to produce relevant analysis, templates (e.g. power purchase agreements), processes, and support mechanisms to attract independent power producers and put in place effective and transparent power purchase agreements.

#### **1.3 To improve the reliability and physical resilience of energy infrastructure and services.**

In response to the rising costs and impacts of climate and disaster risks on national energy infrastructure, an audit of energy infrastructure inclusive of an assessment of the exposure and vulnerability of this infrastructure to physical risks will be carried out and used to adapt upkeep and maintenance regimes to suit changing operational and safety considerations.

## *Enabling objectives*

### **1.4 To enhance capacity to produce energy demand projections.**

The ongoing and coordinated inter-sectoral analysis will be required to anticipate and respond to changes in energy demand. Managing uncertainty, building resilience to climate and disaster risks, and improving long-term planning capacity and strategy will require additional capacity and resources within DOE and MOE.

### **1.5 To support the enabling environment for energy asset insurance and de-risking facilities.**

Fiji's energy security and sustainability objectives are reliant on increasing private sector engagement and supporting improved conditions for external investment. Given the high level of investment required to upgrade and transition Fiji's energy sector, DOE will work with the Ministry of Economy, Investment Fiji, and other relevant stakeholders to improve the potential to insure investments in resilient energy infrastructure.

### **1.6 To minimise the risk of fuel shortages through increased cooperation and dialogue with fossil fuel importers.**

Fiji's current reliance on fossil fuels and increasing potential for supply chain disruption in recent years is a risk to Fiji's energy security. While fuel stocks are ably managed by fuel distributors in Fiji and contingency plans and reserve policies are in place, there is a need to further appraise the existing arrangements, logistical options, safety issues, and financial burdens involved with addressing fuel shortages. The DOE will work with fossil fuel importers to increase dialogue and strategy around in-country supply infrastructure, options, and safety standards. Recommendations and policy proposals should be developed as required to help ensure that an integrated response to a fuel shortage can be triggered early to prevent a fuel crisis from occurring. DOE will help to facilitate regular dialogues amongst key petroleum fuel stakeholders across both the public and private sector to help mature cooperation and ability to forecast potential pricing and supply risks.

### **1.7 To promote regional harmonisation of fuel standards and support regional level contingency planning.**

Fiji maintains higher fuel standards than the majority of its neighbours. While high fuel standards are of benefit to the environment and human health, the lack of harmonisation between national standards in the region minimises the potential to share resources when supply chain disruption occurs. DOE will work with MOE, the Ministry of Foreign Affairs, and regional organisations to advocate for improved regional harmonisation of fuel standards through relevant forums and political platforms.

### **1.8 To support the resilience, sustainability, and cost-effectiveness of key public services through integrated resource management and cost-sharing.**

DOE will work with natural resource owners, EFL, Water Authority of Fiji (WAF), Airports Fiji Limited (AFL), Fiji Ports Corporation Limited (FPCL), the Ministry of Health and Medical Services, The Ministry of Education and other key stakeholders with oversight over critical

services and resources to support the efficient use and integration of renewable energy potential into existing operations. DOE will help to coordinate the analysis and support required to enable cost-sharing and fair distribution of benefits. A framework for integrated resource management to help better align and combine the activities and investments made by energy and water sector actors will be developed under the oversight of DOE to support the potential for utility operators to cost-share and inter-relate operations and resource use where required. DOE will ensure that energy services and operational processes are tailored to support and complement transport, water, and food security needs while also ensuring landowners and communities receive fair benefit from the use and development of their resources. While these activities will contribute directly to the objectives under Section 3 *Energy Sustainability*, this objective is primarily framed from the perspective of energy security and cost effectiveness.

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## 2) ENERGY ACCESS AND EQUITY



A central objective of SDG7 is to ensure universal access to affordable, reliable, and modern energy services by 2030. The Fijian Government will help support universal access to affordable electricity through a focus on policies and investments that create electricity access for the remaining 4.5% of the population that is without access to reliable sources of electricity via either on-grid or off-grid energy sources. The majority of this population is based in highly remote rural and maritime areas. DOE will assist efforts to enable universal access to clean, affordable, and reliable energy through engagement with energy investors, support for pricing reform and analysis, and initiatives to designed to increase primary reliance on clean fuels and technology.

### *Overarching Objectives and Priorities*

#### **2.1 To enable all Fijians to have access to reliable and affordable electricity services.**

Through the implementation of the *National Electrification Policy* and the development of an updated Electrification Master Plan, DOE will work with national energy utilities, renewable energy suppliers, financing schemes, and relevant stakeholders to add both off-grid and on-grid energy capacity to fill all electrification access gaps and support as close to universal access to electricity as possible. Both decentralised mini-grid and off-grid renewable energy solutions will be prioritised in cases where the connection to on-grid distribution is not feasible or cost-prohibitive. Through the continuation of the ‘Lifeline’ electricity subsidy scheme, the Fijian Government will continue to support electricity access for the poorest in society and continue to assess such schemes to ensure the greatest benefits in terms of social protection, poverty alleviation, and gender equality can be achieved. DOE will work with energy utilities, the public, and the private sector to protect consumer interests while supporting the sustainability and development of Fiji’s energy sector and markets.

#### **2.2 To ensure both women and men have equal opportunity for employment within the energy sector.**

Inequality within the energy sector will be addressed through the adoption of new human resourcing policies and targets within DOE and within project proposals and implementation design. New partnerships with academic institutions, gender-focused organisations, and regional organisations (e.g. The Secretariat of the Pacific Community) will be used to enhance the opportunities for youth and women to access employment within the energy sector.

#### **2.3 To increase access to clean cooking fuels through the promotion of affordable and accessible alternatives.**

The Fijian Government aims to ensure all Fijian’s have access to cooking fuel alternatives that allow for the effective reduction of reliance on biomass, wood, and kerosene as primary energy sources. Reducing dependence on harmful cooking fuels will create a range of social, environmental, and economic co-benefits for Fiji and will require coordination between various sectors, actors, and ministries. Collaboration between DOE and the Ministry of Women and Poverty Alleviation, Ministry of Health, Ministry of Forestry, Ministry of Rural and Maritime Development, Ministry of Economy, and Ministry of Environment will help to

increase alignment between related policy objectives, awareness programmes, and standards. There is significant potential to scale up the use of biogas systems to produce cooking fuel, manage waste, create sustainable fertiliser for small scale agriculture, create health benefits, and minimise environmental harm. DOE will work to create greater opportunities for communities to access affordable and safe biogas infrastructure.

### *Enabling objectives*

#### **2.4 To develop and implement standardised community energy demand consultation guidelines and protocols**

To support the current and future energy demand requirements of rural and maritime communities and settlements, DOE will develop guidelines and protocols to ensure engagement with communities is inclusive, gender-responsive, and meaningful. Gender equity objectives will be supported through specific requirements to ensure interventions and investments support the differing needs of women and girls through the use of gender analysis and the collection of gender-disaggregated data. These guidelines will ensure the full range of considerations that shape energy demand are considered when designing investments and interventions to improve energy services. These guidelines will include detail on the process for obtaining land consent for activities that require changes to land use.

#### **2.5 To enable remote communities to work with the private sector to cooperatively manage off-grid renewable energy systems**

The sustainability and scale-up of off-grid renewable energy systems will require the involvement of new actors and the use of innovative cooperative financing arrangements. The Fiji Rural Electrification Fund is an example of how communities, private sector renewable energy providers, and government can collaborate to finance, operate, and maintain renewable energy systems. The DOE in collaboration with the Ministry of Economy and other relevant government agencies, renewable energy service companies (RESCOs), and development partners will work to improve access to innovative funding and management arrangements and improve the enabling environment required to promote and enable localised off-grid energy cooperatives.

#### **2.6 To facilitate and increase access to skill transfer programmes, capacity building initiatives, and employment opportunities that support the low carbon transition of Fiji's energy sector and workforce.**

Access to new skills and technical capacity building will be required to ensure Fiji's workforce can support and benefit from Fiji's energy transition. Increasing energy auditing capacity, renewable energy and sustainable transport engineering expertise, data analysis capacity, IT skills, and climate risk assessment capacity will be dependent on adjustments to the national curriculum, increased collaboration with Fiji's vocational institutes and higher education sector, and active pursuit of financing for technology transfer and capacity building. DOE and DOT will work with the Ministry of Education and the Ministry of Employment, Productivity and Industrial Relations, academic and vocational institutions, and the private sector to support the development of new training, regional internship and job placement schemes, and capacity building programmes.

## **2.7 To unlock gender-smart investment in the energy sector.**

DOE and the National Energy Steering Committee working in close consultation with MWPA will identify and promote energy sector investment that seeks to address specific gender dimensions and ensure responsiveness to gender-specific energy priorities. For projects or infrastructure investments that aim to reduce GHG emissions, the reduction in emissions will where possible, be linked to specific diversity/inclusivity outcomes such as capacity building targets. DOE will ensure that gender co-benefits are part of the eligibility criteria for energy projects funded by national bond issuances. DOE and the NEPSC will ensure gender-specific KPI's are included within broader investment mandates.

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### 3) ENERGY SUSTAINABILITY



*The Constitution of the Republic of Fiji recognises and protects the ‘right to the environment’.*

*‘Every person has the right to a clean and healthy environment, which includes the right to have the natural world protected for the benefit of present and future generations’ (Constitution of The Republic of Fiji, Chapter 2, Section 40(1))*

This right must be protected and assured both through the reduction of the use of environmentally harmful energy sources which compromise the integrity of Fiji’s environment as well as through the empowerment of Fijians to derive benefit from the environment in the form of indigenous sources of energy (sunlight, wind, etc.). In this way, access to renewable energy is a right that is supported and enabled through relevant legislation, regulation and policy. A key target of SDG7 is to increase substantially the share of renewable energy in all contexts by 2030(7.2). A further tenet of SDG7 is a specific objective recognising the need to support infrastructure development and technology transfer in SIDS (7b) as well as the need to enhance international cooperation to support the research and financing that those developing countries require. Diversifying Fiji’s energy resources, achieving national NDC targets, National Development Plan objectives, and the SDGs will be reliant on the transition to renewable sources of electricity production, the decarbonisation of Fiji’s transport sector, and significant efforts to develop new financing instruments and promote research and innovation. The Fijian Government is committed to achieving net-zero national emissions by 2050, recognising that Fiji has abundant untapped renewable energy resources which can be systematically harnessed and used to support the nation’s sustainable development priorities. Fiji’s NDC, NDP, and NCCP together clarify the intention to decarbonise Fiji’s transport sector while supporting improved connectivity and access between and across Fiji’s islands. By 2030, in addition to electricity demand, Fiji’s renewable energy production capacity will support and power a significant proportion of Fiji’s land transport sector. In addition to the need to drastically scale up the supply of renewable electricity to meet the additional demand for this resource as a transport fuel, significant investment in new infrastructure and incentives to increase the import and sale of EV’s will be required. The shift to low-carbon transport will be shaped by efforts to improve access to affordable, clean, and efficient public and private transport options and efforts to strategically reduce traffic congestion. The increased uptake of low-carbon transport is expected create benefits for human health and the local environment while also helping to increase energy security by reducing reliance on imported fuels.

## ***Scaling up Renewable Electricity Production***

### ***Overarching Objectives and Priorities***

#### **3.1 To derive as close to 100% of electricity services from renewable energy sources as possible by 2030.**

In keeping with Fiji's climate change commitments and development goals, Fiji will systematically scale up the transition to renewable energy-based electricity production. Robust cost-benefit analysis and multi-criteria assessments will be used to inform the consideration of different renewable energy options in support of Fiji's overarching energy targets. This transition will be contingent on international support consistent with the commitments made under the Paris Agreement. All efforts will be made to ensure investments that create additional benefits for Fiji's socio-economic priorities are prioritised alongside measures specifically aimed to reduce and minimise the impacts of the energy sector on the local and global environment.

### ***Enabling Objectives***

#### **3.2 To ensure information and data on Fiji's renewable energy resources and fuel usage is publicly available.**

Access to data on Fiji's potential renewable energy resources and current fuel usage is important for external actors and investors interested to support the viability of Fiji's energy transition. In addition to data on these resources, DOE will work with the Ministry of Economy, and other key partners to keep track of changes to the costs of renewable energy components to ensure Fiji has an updated perspective on the levelised cost of energy from different sources. This type of data is vital for cost-benefit analysis, planning, and investment forecasting.

#### **3.3 To develop a high priority renewable energy investment pipeline and grid-integration plan**

The ability to access financing for renewable energy projects is in part contingent on the ability to demonstrate a clear pipeline of investable projects. Additionally, pipeline development plans should be supported by a grid integration plan that offers options for integrating and managing variable renewable energy sources. DOE will work closely with the Ministry of Economy and DOT to produce and update investment plans in support of Fiji's NDC commitments and invest resources where required to further develop *shovel-ready* projects.

#### **3.4 To develop a consultative and inclusive coordination mechanism to support renewable energy-related land procurement objectives.**

Increasing and diversifying Fiji's renewable energy infrastructure will require a clear approach for securing the land required for new energy infrastructure investments. DOE in consultation with the Ministry of iTaukei Affairs. The iTaukei Land Trust Board and relevant stakeholders will develop a clear consultation process for energy-related land procurement. This process will prioritise close coordination and consultation with landowners, support the strategic use

of land and natural resources, and seek to create opportunities to increase co-benefits for landowning communities in the form of financial benefits or employment opportunities.

## ***Sustainable Financing, Private Sector Engagement, and Market Development***

### ***Overarching Objectives and Priorities***

#### **3.5 To utilise incentive-based approaches to help scale up national renewable energy uptake and investment.**

DOE will use the national budget submission process and collaboration with FRCS, Ministry of Economy, and DOT to develop targeted incentive structures for accelerating renewable energy uptake, transport decarbonisation, and energy efficiency improvements. Incentives may include tax rebates, grant opportunities, investment de-risking mechanisms, duty concessions, and other relevant financial tools.

#### **3.6 To develop and introduce national renewable energy standards.**

Renewable energy standards are required to ensure that products and services adhere to minimum performance requirements. National energy standards are required to protect the market from sub-optimal products and services and improve consumer confidence in renewable energy options and management methods.

#### **3.7 To attract international institutional investors and unlock new financing sources for Fiji's energy infrastructure and net-zero transition.**

Fiji's experience with international climate funds, bond issuances, and innovative financing mechanisms must be purposed towards unlocking new and additional financial flows for Fiji's energy development. Through engagement with new and emerging blended financing facilities, capital markets, and support of specialist renewable energy operators, DOE, DOT, the Ministry of Economy and its Climate Change and International Cooperation Division, Fiji Development Bank, FCCC, Investment Fiji and others will work to improve the ability to attract investment. These efforts will include the introduction of a competitive bidding scheme for high priority renewable energy projects, the exploration of the potential for a specialised Pacific regional energy access fund, and the coordination of energy-focused development partner forums. Working with Reserve Bank of Fiji, DOE will support the analysis of potential commercial lending mechanisms to support the scale-up of low carbon, renewable, and efficient technologies.

## *Enabling Objectives*

### **3.8 Review and reform fossil fuel subsidies.**

Fossil fuel subsidies will be reviewed and options for reform submitted to relevant authorities for review by 2023. The objective of any reform measures taken will be to improve alignment with Fiji's climate change objectives through alternative benefits or incentives in place of existing subsidies. This reform exercise will be aligned with Fiji's commitments to remove harmful fossil fuel subsidies through the *Agreement on Climate Change, Trade and Sustainability* and the relevant provisions and objectives set out under the Climate Change Act. DOE in partnership with FRCS and DOT will work to replace fossil fuel subsidies with subsidies that help lower the cost of clean technologies, promote energy efficiency improvements, and encourage the uptake of renewable energy sources for electricity production and transport.

### **3.9 To review Fiji's energy pricing structures and support comprehensive reform of Fiji's electricity tariffs.**

DOE will work with FCCC, energy utilities, and the Ministry of Economy to review and reform energy tariffs in a way that achieves an optimal strategic balance between consumer affordability, improved incentives for independent power producers, and the operational requirements of national energy utilities. This pricing reform exercise will seek to establish a technology-differentiated feed-in tariff structure that strategically promotes the viability of diversified energy sources while minimising negative trade-offs for the consumer and utility operators.

### **3.10 To institutionalise a long-term guarantee scheme to support local investment priorities and accelerate the uptake of renewable energy in rural and maritime areas.**

In addition to securing investment for large scale energy projects, small-scale renewable energy projects will continue to require support and financing. Building upon previous experience managing a World Bank-funded renewable energy guarantee scheme aimed at rural customers and private sector energy infrastructure suppliers, DOE will seek to institutionalise a long-term guarantee fund to support the local market and demand for renewable energy solutions.

### **3.11 To explore the potential uptake and interest within the private sector in a voluntary premium green electricity tariff and certification package.**

DOE will ensure the promotion and recognition of voluntary incentive systems for promoting renewable energy use is incorporated within its long-term strategies. DOE will work with the national energy utility to explore the potential demand for a premium green energy tariff. Such a scheme would aim to raise additional proceeds to support renewable energy development in exchange for compliance with corporate social responsibility objectives and have energy consumption directly attributed to the renewable energy produced within national energy grids.

## ***Sustainable Alternative fuels***

### ***Overarching Objectives and Priorities***

#### **3.12 To further develop and enforce both overarching and use-specific fuel standards.**

DOE with the assistance of DOT, FRCS, and FCCC will continue to enforce and further develop Fiji's fuel standards to support energy security, access, sustainability, and efficiency objectives. Fuel standards for high emitting vehicles will be reviewed alongside the potential to introduce more efficient fuel types into the consumer market. Minimum fuel economy standards and vehicle emissions standards for land transport will require a strategic review to help ensure compliance with international best practice and Fiji's climate change commitments.

#### **3.13 To introduce an import tax on heavy fuel oil by 2024 and ban the import of heavy fuel oil by 2030.**

HFO is the most environmentally detrimental fossil fuel and the transportation of HFO by sea is a risk to the Pacific environment. To encourage the use of efficient and clean fuels and disincentive the continued use of HFO's in Fiji's energy sector DOE will work in collaboration with FRCS, DOT, and the Ministry of Economy to introduce a tax on the import of HFOs by 2024. This tax will be intended as a precursor to a complete ban of the import of HFOs by 2030. DOE will work with the Ministry of Economy to incorporate this action into Fiji's NDC.

#### **3.14 To enable and encourage the production and usage of sustainable biofuels.**

Fiji has the potential to develop a sustainable biomass and biofuel industry that helps to support Fiji's decarbonisation and economic development goals. DOE will develop a specific national biofuel policy to help improve the enabling environment for both biofuel production for both domestic use and potential export. This policy will ensure that Fiji's agricultural sector and local industries can benefit from a further source of sustainable indigenously sourced energy while minimising any potential impacts on the environment or national food security. This policy will support the enabling environment for biofuel production, sales, and consumption in Fiji through research, incentives, and activities intended to help define and structure a sustainable biofuel/biomass feedstock supply chain. Further research to assess the feasibility of waste-to-energy solutions will also be explored under this objective.

## ***Transport Decarbonisation***

### ***Overarching Objectives and Priorities***

#### **3.15 To develop a national transport decarbonisation strategy in alignment with Fiji's net-zero emissions by 2050 target.**

DOE will assist DOT to develop a national 'Transport Decarbonisation Strategy' as is proposed by Fiji's *National Climate Change Policy* and legally required by *The Climate Change Act*. This strategy should help to highlight key modelling and research needs, support strategic adjustments to transport system planning, include a targeted *Maritime Action Plan* as proposed by Fiji's *NDC Investment Plan*, and support activities that help to promote transport modal shifts, reduce fossil fuel consumption, influence behaviour, planning, and investment, and improve the efficiency of Fiji's transport sector. This strategy will include consideration of different options for managing the full life cycle of vehicles, determine specific priority zones for transport system reform, and provide overall direction for achieving the transport decarbonisation required to achieve Fiji's net-zero emissions target by 2050.

#### **3.16 To promote and incentivise an enabling environment for the introduction and uptake of electric vehicles and non-motorised transport.**

DOE will assist DOT and its associated agencies in close consultation with national power utilities, investors, city councils, and vehicle dealerships to develop a scale-able blueprint for introducing EVs into target areas of Fiji. This will involve the introduction of charging infrastructure and investments to improve the pedestrian environment and increase viability of non-motorised transport solutions. Strategies to help increase uptake of bicycles, electric motorcycles, and commercial EVs will be promoted as well as specific quotas for hybrid and EV sales for vehicle distributors. The introduction of EVs and the use of high-efficiency hybrid vehicles will require inter-government collaboration to develop methods for safely refurbishing or disposing of batteries. DOE and DOT will collaborate to support the exploration of technology transfer and trade facilitation with relevant companies and stakeholders.

### ***Enabling Objectives***

#### **3.17 To work with vehicle importers to design a cost-effective scheme that helps to ensure that at least 50% of all government leased or owned land transport vehicles are electric or biofuelled by 2030.**

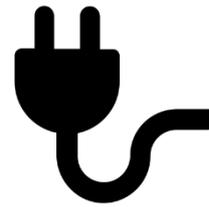
DOE will work with the Ministry of Economy and all government ministries to further support the implementation of objective 3.16 by imposing a minimum quota for low to zero-emissions government vehicles, targeting a minimum of 50% government fleet transition by 2030. Inter-ministerial cooperation will be required to support bulk procurement, charging and leasing arrangements. This initiative will help incentivise importers to push forward EV import targets and create initial rationale for Fiji's first charging stations. In some cases, solar panels and charging stations could be installed on Government premises to create a localised and sustainable source of electricity and transport.

### **3.18 To reduce emissions from domestic marine transport by 40% by 2030.**

DOE will provide technical support and energy auditing expertise required to assist DOT's development of a Marine Action Plan to support the marine transport target included in Fiji's revised NDC. Reducing marine transport emissions will require investment in operational and physical efficiency improvements on large ships and ferries and the introduction of new incentives and standards. These improvements may include review and adjustment of ship energy management plans, route planning, ballast optimisation, speed regulation, propeller replacement and maintenance regimes, engine tuning, and retrofitting to include additional sources of low emissions propulsion. DOE will work with DOT, MSAF, FPCL, the private sector, and key donors to enable the phase out of the import and sale of 2-stroke outboard engines and promote the import and sale of high-efficiency small engines. Research will be conducted to ascertain the potential benefits and costs involved with different strategies for managing marine sector emissions (E.g. emissions control areas). **The Fijian Government will continue to require international support and access to technical assistance and demonstration finance for marine propulsion modal shifts and clean port infrastructure.** DOE and DOT will collaborate to increase engagement with key partners and international organisations.

### **3.19 To explore options to reduce domestic aviation sector derived emissions through renewable energy, operational efficiency improvements, and sustainable alternative fuels.**

DOE, DOT, and the Civil Aviation Authority will develop options for aircraft and airport focused operational efficiency improvements and explore potential to invest in renewable energy systems to supplement energy use and reduce operational costs. The use of alternative aviation fuels will be explored as a means to reduce the emissions of Fiji's domestic aviation sector.



## 4) ENERGY EFFICIENCY

Fiji's NDC (2020) commits to achieving nationwide energy efficiency improvements equivalent to a 10% reduction in overall emissions by 2030. SDG7 promotes efforts to double the global rate of energy efficiency improvements by 2030. Decreasing energy intensity through efficiency improvements is important from both an energy security and energy sustainability perspective. A significant proportion of Fiji's energy efficiency improvement potential will be achieved through initiatives targeted at the transport subsectors, behaviour change, and product performance standards. Additionally, changes are required to mitigate the embodied emissions of materials used in the building sector and new standards and codes are required to improve the efficiency and energy consumption profiles of commercial buildings, public service infrastructure, and homes. Supply-side efficiency improvements targeting changes to the management of electricity production and distribution. The Fijian Government seeks to achieve significant efficiency improvements and ensure that optimal value and utility is derived from the energy consumed in Fiji. Energy efficiency improvements will be achieved through a mixture of behaviour change, policy reform, new product standards, building standards, operational changes, and revise asset management approaches.

### *Overarching Objectives and Priorities*

#### **4.1 To improve the transparency, verifiability, and understanding of efficiency improvement activities and opportunities.**

DOE will support technical efforts to evaluate the most effective and verifiable strategies and activities for improving energy efficiency across different sectors. DOE will help support the production and use of energy audit data as a tool for guiding policy. DOE will consider options for using both incentives for voluntary actions as well as enforcement mechanisms to help promote the scale-up of technically credible and verifiable efficiency improvements.

#### **4.2 To expand the scope and coverage of minimum performance product standards and labelling.**

Existing minimum performance standards will be expanded in coverage to ensure the majority of imported electrical products and equipment complies with standards that help to improve efficiency. DOE will work with relevant authorities to ensure that standards for high energy consumption products such as air conditioners are in place and enforced by 2025. DOE will ensure rising energy consumption from information technology is accounted for and considered when evaluating which products should be targeted by new standards.

#### **4.3 To revise import duties, registration fees, and tax structures to promote the uptake of high-efficiency vehicles.**

To further improve the aggregate fuel efficiency of Fiji's land and marine transport sectors and further support objective 3.16, DOE, DOT, and DNTMS will work directly with FRCS and the Ministry of Economy to develop the necessary analysis and data to propose revisions to the tax, duty, and registration fee structure for imported vehicles. Duty concessions will be used to reduce the landed cost of high-efficiency vehicles but will be adjusted to ensure incentives protect Fiji's economy from technology dumping. Fiscal concessions will be used

to increase the affordability of low to zero-emissions products and vehicles and specific commercial tax incentives will be used to support the uptake of low to zero carbon busses and other types of mass transit vehicles. DOT and LTA may consider and explore options to help better ensure registration fees are adjusted and scaled to better reflect the average fuel efficiency and emissions of vehicles being registered. The phase-out of inefficient vehicles will be supported through the development of an end-of-life vehicle retirement scheme and incentives to promote the uptake of high-efficiency transport options.

#### **4.4 To develop and incentivise compliance with performance-based green building codes and energy-efficient management guidelines.**

DOE will support the Department of Building and Government Architect (DBGA) and the Ministry of Economy to coordinate and convene the various stakeholders required to develop performance-based green building codes as well as guidance to help ensure all new building proposals are encouraged to optimise the efficiency of building design and management. These codes and guidelines may be introduced initially as voluntary however DBGA and DOE may explore potential with the Ministry of Economy and FRCS to develop a differential tax scheme for commercial buildings based on energy utilisation and verifiability of efficiency improvements or design features. An energy performance certificate banding scheme would then be used to assess all new buildings and as the basis for differential taxation. This scheme will seek to incentivise investment in smart energy management systems, high-efficiency cooling and lighting technology, the use of building materials with low embodied energy, passive design features that drive down overall energy usage, and the use of nature-based solutions and operational strategies to increase efficiency and reduce the aggregate carbon footprint of the building sector.

#### ***Enabling Objectives***

#### **4.5 To inform changes to monetary policy designed to increase domestic lending for energy efficiency.**

DOE will work with the Ministry of Economy, the Reserve Bank of Fiji, Fiji Development Bank, and commercial banks to present a business case for adjusting monetary policy to support increased domestic lending capacity and improved accessibility conditions to help bolster investment in demand-side energy efficiency and in so doing promote and increase the market for energy efficiency improvement services and products.

#### **4.6 To support national energy utilities to access the investment and improvements required to reduce average on-grid electricity losses to below 5% by 2030.**

To enable the most cost and energy-efficient approach to the management of peak demand, enable maximum value to energy consumers, meet overall rising energy demand, and minimise negative environmental impacts, DOE will work with EFL and the Ministry of Economy to improve access additional concessional financing as required to support the upgrade electricity transmission and distribution infrastructure and reduce system losses. On-grid electricity demand and inefficient distribution infrastructure requirements will be managed through the strategic use of mini-grids and off-grid energy solutions

#### **4.7 To invest in consumer awareness and advocacy schemes that trigger measurable energy conservation and efficiency improvement outcomes.**

DOE will support national energy efficiency improvement targets through a focused public advocacy initiative that promotes zero to low-cost activities to drive down wasteful energy use practices. Baseline consumption averages for relevant demand sectors will be calculated at the beginning of a proposed campaign to help identify the potential demand reduction that could be realistically achieved through aggregate changes to behaviour that would complement other types of investments made to improve energy efficiency. This study and baseline will be used to both design the focus of the campaign and evaluate the effectiveness of the campaign.

#### **4.8 To develop and promote enhanced green tourism opportunities and incentives.**

Tourism operations have constituted a major proportion of Fiji's GDP and have been responsible for a substantial proportion of annual electricity and fuel consumption in Fiji. DOE will collaborate with the Department of Tourism, Tourism Fiji, and the Fiji Hotel and Tourism Association (FHTA) to support the development of specific fiscal policy proposals, duty concessions, marketing strategies, and partnerships intended to incentivise investments in energy efficiency improvements and emissions reduction activities while also supporting Fiji's economic recovery from COVID-19 in alignment with broader national tourism development strategies.

#### **4.9 To support the delivery and implementation of an urban-targeted policy package designed to improve energy efficiency.**

DOE and DOT will work with LTA, FCCC, FRCS, Ministry of Economy, the Department of Town and Country Planning, bus companies, city councils, and other key stakeholders to develop a strategic combination of incentives and regulations to help address both the problem of rising vehicle emissions and congestion in urban centres and the resulting impact of this on fuel use, productivity, and air pollution. A pilot scheme for introducing alternative transport options, nature-based solutions and incentives and infrastructure to increase the use of non-motorised transport, and other policy strategies will be trailed in one major city and used to inform a broader approach to urban planning and public transport development. These efforts will recognise the need to take into account the sector coupling that will occur between the electricity sector and transport sector with the introduction of EVs and the need to manage new electricity demand through a holistic approach to urban planning and the use of public space.

#### **4.10 To establish and implement public sector procurement guidelines and operational efficiency commitments.**

In addition to targets concerning government vehicles (3.16a), DOE will support the Ministry of Economy to develop public-sector procurement guidelines that are aligned with the implications of Fiji's climate change priorities will be developed and used to shape the way government buildings, operations, and investments are run and supplied. These guidelines may be used to support a broader *green government operations program* focusing on behaviour change strategies to help improve the emissions profile of government operations

(i.e. increased use of IT and virtual meetings to reduce travel and expenses, use of smart lighting systems in buildings).

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## 5) ENERGY GOVERNANCE

Adjustments to the oversight and regulation of the energy sector are required to optimise pricing and create the conditions needed to achieve key national resilient development objectives. Energy access is the lynchpin of modern economies and the transition to new low carbon energy sources will be the defining feature of economic development in the coming years. As energy systems and technology changes, so too will the required governance arrangements for this sector. Institutional arrangements must be fit for purpose to address the overlaps and ‘sector coupling’ between the transport and electricity sectors. In addition to the specific governance requirements detailed in previous sections, the following objectives have been specifically developed to support Fiji’s ability to overcome the energy trilemma and balance Fiji’s social and economic needs with urgent environmental requirements. Without transparent and responsive governance arrangements for the energy sector, there is a risk that small economies like Fiji’s could run the risk of being left behind and excluded from accessing and utilising important technological opportunities and solutions. Fiji’s regulatory frameworks will continue to be developed to support economic efficiency, ensure consumer protection, incentivise environmental sustainability, improve the security of energy supply, and support energy access.

### ***Overarching Objectives and Priorities***

#### **5.1 To ensure national energy services effectively support Fiji’s socio-economic development priorities.**

DOE will work with key energy stakeholders and through the NEPSC to help prioritise energy investments that contribute towards national resilience, create social development gains, and reduce energy poverty. DOE will facilitate a review of the existing institutional arrangements for the governance of the energy sector to help inform changes needed to deliver the NEP in an effective and inclusive way. The NEP’s objectives will be further supported by a proposed review of the Electricity Act (2017) intended to help with the development of amendments required to improve the alignment of this legislation with Fiji’s existing policy objectives and climate change goals. To better enable DOE to support and coordinate the development and transition of Fiji’s energy services and support the needs of communities, households, and businesses, DOE will review its existing staffing structure in relation to the objectives and goals of this NEP.

#### **5.2 To develop reform options for existing legislation intended to improve the enabling environment for engagement with independent power producers and investors**

As part of the overall strategy for supporting energy security, access, and sustainability, DOE will explore the potential to further amend the 2017 electricity act. Proposed amendments may be focused on further clarifying a transparent competitive procurement process and licencing parameters for independent power producers as well as the inclusion of further detail on the legal framework for power purchase agreements. Amendments may also focus on further empowering the independent national energy regulator to ensure the regulator has appropriate autonomy, resources, and oversight. Specific amendments to the Act that clarify the importance and role of renewable energy sources in Fiji’s energy sector will be

considered alongside provision that supports the role and needs for rural off-grid and mini-grid energy generators. Any amendments to the 2017 electricity act should also consider further clarity on the role of DOE and DOT in Fiji's energy sector development due to the increasing need for inter-stakeholder coordination and emerging opportunities to harness alternative types and pipelines of financing to support Fiji's development priorities.

### **5.3 To develop new and reform existing energy regulations.**

DOE and FCCC will collaborate to strengthen the regulatory framework for energy pricing ensuring that a transparent pricing methodology is applied when developing tariffs and wholesale and retail fuel prices. A framework for market reform will be developed in order to determine the most effective and affordable strategy for increasing access to new financing and investment while supporting a fair deal for consumers, producers, and distributors.

### **5.4 To improve the coordination between the relevant ministries, agencies, sectors and stakeholders.**

To adequately support the energy transition, DOE will support greater inter-stakeholder organisation through the development of the NEP's Strategic Action Plan and associated implementation arrangements. This plan will clarify specific roles and responsibilities under the NEP and DOE will use this action plan to engage with stakeholders and further develop existing responsibilities. In addition, DOE will structure its internal key performance indicators and institutional arrangements to support the objectives and intentions of this policy.

### **5.5 To improve energy sector data collection, management, and dissemination.**

In keeping with changing data requirements for proposals, audits, national reports, planning, and investment strategies, DOE and DOT will improve existing capacity and increase new human resources dedicated to data collection, management, analysis, and dissemination. DOE will work in partnership with the University of the South Pacific, Fiji National University and others to explore options for academic institutions to support national data collection and analysis needs. These efforts will include the institutionalization of emissions-related monitoring, reporting, and validation activities to comply with Fiji's NDC reporting and respective responsibilities to support the data required by Fiji's national emissions registry. DOE will make reports on energy sector partnerships, tenders, transactions, and procurements publicly available. DOT and CCICD will support MSAF to improve its collection and analysis of energy consumption data within the marine transport sector.

### **5.6 To increase engagement and collaboration with the private sector**

DOE and DOT will engage with the Department of Trade, the Ministry of Economy, and relevant private sector advisory committees to further develop guidelines for public-private partnerships and improve alignment with a greater range of private sector objectives and investments. DOE, DOT, and Investment Fiji will ensure information on priority energy sector projects and investment opportunities are documented and made available.

### **5.7 To develop publicly reviewed and reported key performance indicators for Energy Fiji Limited.**

To support the delivery of this policy and promote its intentions, DOE will develop specific key performance indicators from which to assess the performance of national energy utilities. These indicators will be monitored by DOE using either proxy data or through reports provided by the national energy utilities. A synthesis report on the performance of national energy utilities against these indicators will be made publicly available on a bi-annual basis.

### **5.8 To promote and enable gender balance within national energy sector governance and management bodies.**

Women's leadership and participation in the development and deployment of energy solutions and policies will improve the sustainability of outcomes and ensure women's needs are accounted for strategically and effectively. DOE and DOT will work with relevant stakeholders and private sector groupings to encourage relevant companies, organizations, and state-owned entities to adopt a transition strategy for boards and executive management committees designed to equalise the representation of women and men in such bodies.

#### *Enabling Objectives*

### **5.9 To secure support and partnerships that enable institutional strengthening and capacity building.**

To strengthen regulatory bodies, build new technical capacity, and strengthen institutional arrangements required to support energy sector reform, development, and transition capacity-building programmes will be designed in support of overarching policies and strategies. Training opportunities and access to resources required to improve integrated energy planning and the production of energy statistics will be built into energy projects and proposals. Coordination arrangements between sectors, agencies, ministries and investors will be developed to support blended financing arrangements for energy sector assets. DOE and DOT will review staffing structure and key performance indicators in response to this policy.

### **5.10 To promote research and innovation.**

DOE and DOT will promote national investment in research and innovation recognising the significant changes required to comply with Fiji's development priorities and commitments. To support the research and innovation required, MOUs with technical organisations, centres of excellence, and academic institutions will be encouraged as well as participation in relevant research networks. To support Fiji's 2050 net-zero target, DOE and DOT will work with relevant ministries and stakeholders to encourage strategies designed to increase access to financing equivalent to 1% of Fiji's GDP annually by 2030 to support context-specific research, technical assistance, technology transfer, and innovation.

### **5.11 To develop strategic intra-governmental memorandums of understanding to support the implementation of the NEP.**

DOE will develop targeted MOU's to support this policy and reduce information barriers and decision-making silos. For example, DOE and DOT will work with FRCS to develop an MOU aimed and creating a platform to consider and design incentive schemes aimed at stimulating

the import of energy-efficient technologies and products. Working in collaboration with the Fiji Bureau of Statistics, efforts will be made to improve the detail and relevance of national energy statistics to help influence and inform prioritisation, decision-making, planning, and resource mobilisation.

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## Implementation and Oversight

The successful implementation of the NEP 2020-2030 will be reliant on strong inter-ministerial and cross-sectoral cooperation among stakeholders. The NEP supports a holistic vision for transitioning Fiji's energy sector to successfully meet the challenges and demands that will define the next three decades.

### Coordination and Planning

The coordination of the implementation arrangements required to meet the objectives for the NEP will be overseen by the **NEP Steering Committee** (NEPSC) which will act as an advisory board for the implementation policy and oversee planning and activities to serve the policy objectives. The NEPSC's composition will be reviewed as and when required and the review will be triggered by a motion to do so by one or more of the members of the Committee. The NEPSC will have the ability to convene and create technical advisory groups as required to support decision making and coordination. The NEPSC will measure progress against the NEP's **Strategic Action Plan** (SAP) which will be produced to help articulate the specific activities required under each objective. The NEPSC will report to Cabinet through the Minister for Infrastructure and Meteorological Services.

### Policy Development and Market Regulation

Specific policy development to support the overarching policies and objectives of the NEP will be the responsibility of DOE and DOT respectively. DOE and DOT will work closely with the Ministry of Economy, Fiji Bureau of Statistics, Reserve Bank of Fiji, and Fiji Revenue and Customs Service, Energy Fiji Limited, Land Transport Authority, Fiji Roads Authority, Water Authority of Fiji and others to support the fiscal and monetary settings required to advance the NEPs objectives. As the independent regulator of the electricity sector, the Fijian Competition and Consumer Commission will be empowered to strategically orient its operations in support of the NEP's objectives.

### Monitoring and Evaluation

DOE and DOT will be responsible for the technical reporting and monitoring of activities completed. DOE and DOT will take responsibility for relevant sections of the SAP and institutionalise the relevant data management arrangements to support evaluation.

### Reporting

DOE and DOT in collaboration with the NEPSC will report as required against key indicators relevant to the National Development Plan, SDG Targets, National Climate Change Policy, and Fiji's Nationally Determined Contributions to the Paris Agreement. DOE and DOT will have direct responsibilities for supporting emissions monitoring activities led by the Climate Change and International Cooperation Division and will play a key role in supporting the national registries and inventories required to enable transparent and accurate reporting

under the UNFCCC. The NEPSC will report to the ***National Climate Change Coordination Committee*** when requested and at least annually.

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## Policy Review Process

DOE in close consultation with DOT will commission an independent mid-term review of progress against the NEP by no later than 2025. This mid-term review will produce a report that will be submitted to the NEPSC before being submitted to Cabinet for review and comment.

The final review of the NEP will be conducted in conjunction with Fiji's reporting on SDG progress in 2030. The NEP will then be reviewed, and a new NEP produced by no later than 2031.

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