



**SOLOMON ISLANDS NATIONAL ENERGY POLICY**



**SOLOMON ISLAND NATIONAL GOVERNMENT**

## **LIVING DOCUMENT**

The Solomon Islands National Energy Policy (SINEP) 2019 – 2030 shall be considered a “living” document in that information expressed in this publication represents the Government’s current understanding of The Energy sector and its relevant sub-sectors in relation to The Solomon Islands National Development Strategies (NDS) 2016 – 2035.

The SINEP will be periodically updated to ensure validity, relevancy and accuracy over time.

The Solomon Islands Government acknowledges that Development of new technologies and emerging national needs in the energy sector will have an impact on the forward planning of the Energy sector.

The Solomon Islands National Energy Policy 2019 – 2030 was developed under the leadership of the Ministry of Mines, Energy and Rural Electrification in consultation with Government and non-governmental organization and the foreign development partners.

## FORWARD



**Hon. Bradley Tovosia**

I am pleased to present to you the Solomon Islands National Energy Policy (SINEP), which presents the priorities of the Government and the strategic directions for key initiatives in the energy sector over the next 10 years to enable sustainable economic development in the country. This SINEP is an improvement to the 2007 and 2014 SINEP and is closely linked to the National Development strategy (NDS) of Solomon Islands 2016 – 2035 and its vision of a ‘United and Vibrant Solomon Islands’.

In this regard, Energy is included in the Solomon Islands National Infrastructure Investment Plan and NDS as being integral and important for achieving the goals of the NDS. It is a key driver that is integral for economic growth, social development and for improvement of the livelihood of communities. Against that context, it is, therefore, important that the policy directions in the energy sector is set right for the planning and implementation processes of the strategies and investment plans to ensure there is conformity and linkages that positively support development aspirations of other sectors within the economy.

Solomon Islands have its own challenges and opportunities in terms of our energy situation. Our extremely low national electricity coverage, high energy costs and the high dependency on imported fossil fuel, is exacerbated by the geographical spread of the archipelagic nature of our country, which impacts on our economic and social development. Although our country is blessed with abundant renewable energy resources, it is important that the country utilises its resources wisely and minimizes any potentially detrimental effect on economic and social development.

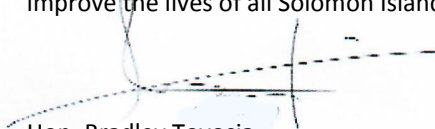
The aspiration of the Government to increase electricity access that is affordable to the population of Solomon Islands needs policy directions to support effective planning and implementation. Our high dependency on imported fossil fuel needs policy directions on management of the petroleum sub-sector to ensure safety aspects is upheld and energy efficiency is maintained.

This policy was developed in close consultation with energy service providers, representatives of the government and community, the private sector, and development partners. It is therefore, a country-owned and led document.

The SINEP is a living document and can be adjusted in response to future changes and needs that may impact the energy situation of the country.

The government therefore intends to establish an energy advisory committee comprised of high-level multi-sectoral members tasked with monitoring the progress of the SINEP against policy performance indicators.

In conclusion, I wish to thank all national stakeholders and development partners for their contributions to the SINEP. The implementation of the SINEP requires concerted efforts from all stakeholders and I strongly encourage your continual support in contributing to the achievements of the policies identified in this document that will help improve the lives of all Solomon Islanders.

A handwritten signature in blue ink, appearing to read 'Bradley Tovosia', written over a light blue rectangular stamp or watermark.

**Hon. Bradley Tovosia**  
Minister for Ministry of Mines Energy and Rural Electrification

## EXECUTIVE SUMMARY

The energy sector is important to the development of the Solomon Island social, economic and environmental status quo. The National Development Strategy (NDS) 2016-2035 highlights three main focus areas that reflect the challenges facing the people of Solomon Islands. These challenges are:(i) poverty alleviation; (ii) access to quality health care and education services; (iii) raising the standard of living; and (iv) improving livelihoods. To combat these challenges, the NDS has the following focus areas:

**Overarching focus area:** Building better lives for all Solomon Islanders;

**Central focus areas:** (1) taking better care of the people and (2) improving the livelihoods of the people;

**Underlining focus area:** creating and maintaining the enabling environment.

These focus areas are supported by eight national objectives.

**Overarching focus area: Building better lives for all Solomon Islanders**

Objective 1: To alleviate poverty and provide greater benefits and opportunities to improve the lives of Solomon Islanders in a peaceful and stable society

**Central focus area 1: Taking better care of all people of Solomon Islands**

Objective 2: To provide support to the vulnerable

Objective 3: To ensure that all Solomon Islanders have access to quality health care and to combat malaria, HIV, non-communicable and other diseases

Objective 4: To ensure that all Solomon Islanders have access to quality education and for the country to adequately and sustainably meet its manpower needs.

**Central focus area 2: Improving the livelihoods of all the people of Solomon Islands**

Objective 5: To increase the rate of economic growth and equitably distribute the benefits of employment and higher incomes amongst all the provinces and people of Solomon Islands

Objective 6: To build and upgrade physical infrastructure and utilities to ensure that all Solomon Islanders have access to essential services and markets.

**Underlining focus area: Creating and maintaining the enabling environment**

Objective 7: To effectively manage and protect the environment and ecosystems and protect Solomon Islanders from natural disasters

Objective 8: To improve governance and order at national, provincial and community levels and strengthen links between them

The Solomon Islands Government (SIG) views its energy sector as a key enabling factor to support its poverty alleviation effort, accelerate access to better health care and education services, and improve the standard of living and livelihoods of communities. At the same time, the SIG appreciates that, in 2009, access to electricity for the urban areas was only 16%. The widely scattered market on islands that are separated by large areas of sea and that have small, isolated communities make sustainable energy development challenging. The HIES reveals that currently 45% of homes have access to electricity through some form of electrification. 40% of 45 % are through private initiative and 20 % through SIEA grid

connection. 2012/2013 HIES study further reveals that 80% of the rural population have access to solar power. Energy policy changes are required to increase energy access, private sector participation and foreign investment, and also to create fiscal incentives for improving energy access, efficiency and activities that will contribute to expanding the economic base.

Solomon Islands has the potential to increase electricity access and use through renewable energy resources and technologies. However, increasing the use of these renewable energy resources presents challenges. These include a lack of enabling environments to foster private investment in the electricity sector and the need to improve funding opportunities (through consolidating funding proposals) and support to assist the Solomon Islands Energy Authority (SIEA) and the Energy Division (ED) in expanding energy access in both urban and rural areas.

The 2018 Solomon Islands National Energy Policy (SINEP) will provide an enabling platform that will inform decision makers on policy directions and strategies for improving the effectiveness of the Solomon Island energy sector and achieving the NDS 2016-2035 through increased access to reliable, affordable and clean sources of electricity.

The estimate costs for the implementation of the SINEP is given in the table below.

<b>Sub sector</b>	<b>Goals</b>	<b>Estimated budget (USD million)</b>
Energy Governance	Development of Energy Legislations	4.18
Electric power (urban)	Increase access to electricity in urban households to 80% by 2025	64.0
Electric power (rural)	Increase access to electricity in rural households to 40 % by 2025	14.95
Renewable energy	Increase the use of renewable energy sources for power generation in urban and rural areas to 50% by 2035	60.05
Petroleum and alternative and gaseous fuels	Develop regulation on petroleum standards and pricing. Increase access for safe, affordable and reliable petroleum fuels to outer islands and remote rural locations Increase the development and penetration of gaseous fuels and alternative liquid fuels from indigenous raw materials.	1.67
Energy efficiency and conservation	Improve energy efficiency and conservation in all sectors by 10 % by 2025	6.29

## ACKNOWLEDGEMENT

The Draft 2018/2019 Solomon Islands National Energy Policy (SINEP) was developed through consultative processes, including workshops, interviews and a desktop review of relevant documents. The Energy Programme of the Secretariat of the Pacific Community's Economic Development Division provided technical assistance for the review and development of the 2014 SINEP. The 2014 Draft SINEP could not be endorsed, hence a two days validation workshop was held in July 2018 to revalidate the draft 2014 SINEP to 2018 Solomon Islands National Energy Policy (SINEP). The final consultation for the validation of the SINEP was concluded in August 2019.

The efforts of the following agencies and persons are greatly appreciated and acknowledged. Their contributions and insights in the review and formulation of the 2014 SINEP were extremely valuable.

- The Permanent Secretary of the Ministry of Mines, Energy and Rural Electrification who, in November 2013, initiated the review of SINEP; the staff of the Energy Division (ED) for their continued support in organising the workshop consultations and national energy forum and their active participation at these events;
- The Asian Development Bank (ADB) for supporting the renewable energy strategies and investment plan, and their willingness to work together on aligning the policy with renewable energy targets for urban and rural households;
- The World Bank Energy Specialist for Solomon Islands for initial comments provided;
- The private sector, government officials and NGO participants, regional and international partners at the November 2012 national energy workshop on the review and amendments to SINEP and at the June 2013 national energy forum, all of whom actively and willingly reviewed the draft SINEP and the energy efficiency and petroleum strategies and investment plan;
- The presenters at the June 2013 National Energy Forum for their valuable insights into the energy sector issues and challenge: the Central Bank of Solomon Islands, the Ministry of Infrastructure and Transport, the Solomon Islands Electricity Authority, and the private sector's perspective by Geodynamics Limited and the Inter Action Corporation; and the Foreign Investment Division for presenting on the business climate and foreign investment in Solomon Islands;
- The Deputy Director and staff at the Energy Programme of the Economic Development Division of the Secretariat of the Pacific Community for their endurance and guidance in facilitating the review of the 2007 SINEP, and the formulation of the 2014 SINEP and associated strategies and investment plans on energy efficiency and petroleum;
- Pacific Appliance Labelling and Standards (PALS) Programme, funded by the Government of Australia through the Department of Climate Change and Energy Efficiency, for additional funding and resources.

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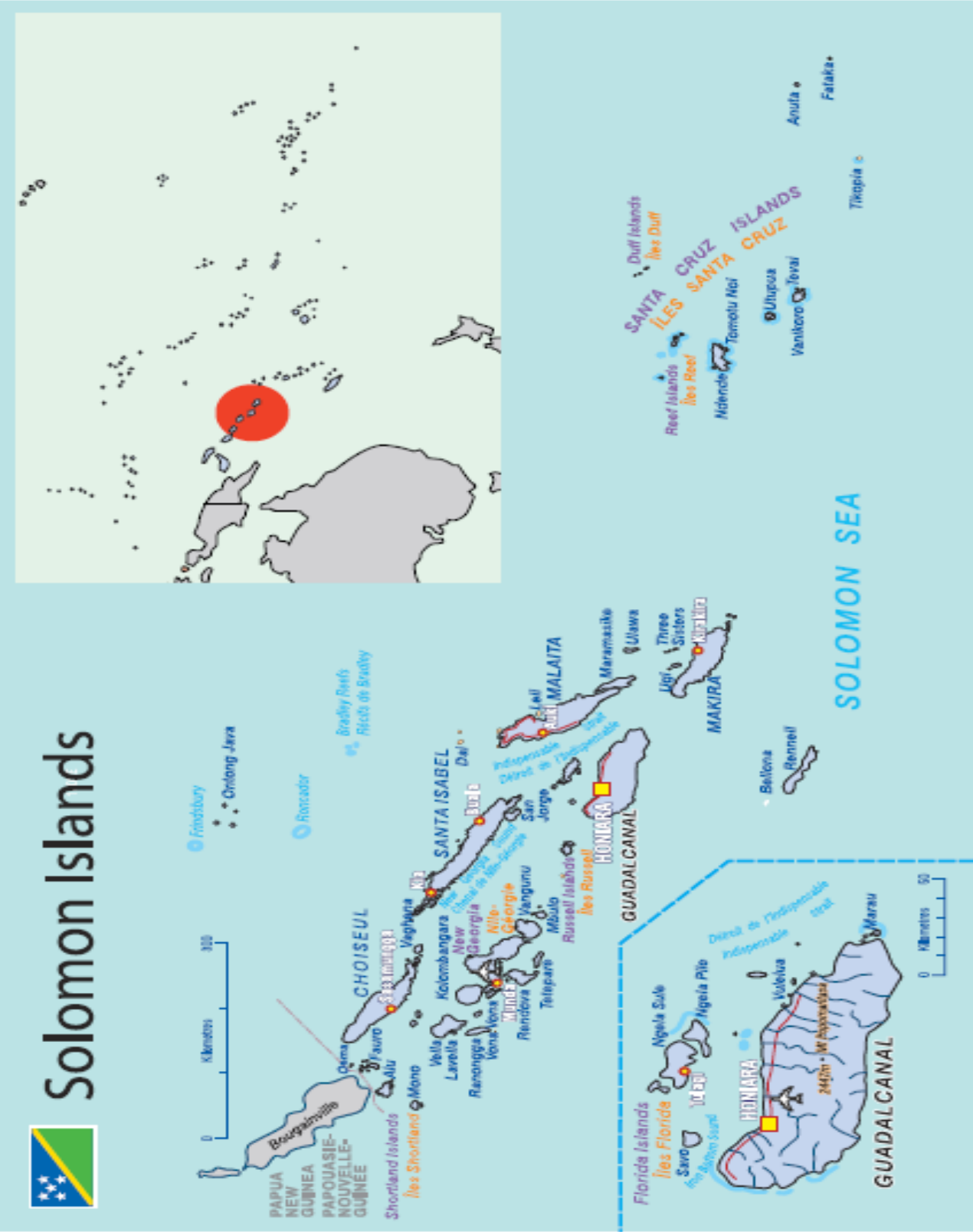
## **ACRONYMS AND ABBRIVIATIONS**

ADB	Asian Development Bank
EAC	Energy Advisory Committee
ED	Energy Division
FAESP	Framework for Action on Energy Security in the Pacific
NDS	National Development Strategy
PALS	Pacific Appliance Labelling Standards
REIP	Renewable Energy Investment Plan
RD&D	Research and Development and Demonstrations
SBD	Solomon Dollars
SIEA	Solomon Islands Electricity Authority
SINEP	Solomon Islands National Energy Policy
SISEP	Solomon Islands Sustainable Energy Project
SPC	Secretariat of the Pacific Community
TRHDP	Tina River Hydro Development Project
HIES	Household Income Economic Survey
MEPSL	Minimum Energy Performance Standards and Labelling

## **DEFINITIONS**

Energy Governance	
Energy Efficiency	
Renewable Energy	
Energy Conservation	

### MAP OF SOLOMON ISLANDS



## SINEP DEVELOPMENT PROCESS

The policy has been developed through the following;

- a desk review of relevant documents;
- Review of the 2007 Solomon Islands National Energy Policy (SINEP), 2009 Strategic Action Plan and the 2014 draft SINEP, using the SI HIES 2012/13. Some recommendations were made that contribute to relevant issues in this policy, such as thematic areas and guiding principles to be adopted;
- A participatory and consultative process, engaging various stakeholders in face-to-face interviews. Consultations were done with government departments, development partners, financing institutions, private sector operators and community service organisations. A two-day national workshop was also conducted in July 2018.
- a national energy forum was conducted on 19–20 June 2013, at which there was broad participation by all government ministries, the private sector and development partners. They commented on the draft policy and energy efficiency and petroleum strategies, for the formulation of the 2014 draft policy. In 2018 a similar workshop was organized to validate the 2014 draft SINEP. A list of stakeholders consulted for the formulation of the 2018 draft policy is attached as Annex 1;
- The last consultation was carried in 22nd - 23rd August 2019 where a thorough validation of the 2018 took place.

## 2. A FRAMEWORK FOR THE NATIONAL ENERGY POLICY AND ITS IMPLIMENTATION

### 2.1 Policy Rationale

The SINEP sets out to pursue the development aspirations of the people of Solomon Islands. Energy policies are critical to job creation and socio-economic development through electricity access, reducing oil imports, energy balance , energy security, improving the reliability of the electric grid, lowering energy prices, and addressing climate change and air pollution.

The 2018/2019 SINEP is intended to guide energy sector planning over the next ten years (2020–2035) and is expected to contribute to the achievement of Solomon Islands’ national vision: **‘Improving the Social and Economic Livelihoods of all Solomon Islanders’ (see Solomon Islands NDS 2016–2035)** and the vision of the energy sector (see 2.2 below).

The policy is also intended to guide the development over the next five years of energy sub-sector strategies and investment plans. It is envisaged that the strategies for the different energy sub-sectors will be integrated into the Ministry of Mines, Energy and Rural Electrification (MMERE) five-year corporate plan, which is mainstreamed into government financial resources and budgeting. However, new information should be accommodated and adjustments made to the strategies and investment plans where appropriate and in a timely manner.

### 2.2 Vision

Unlocking the development potential of Solomon Islands' economic base through a dynamic and effective energy sector

### 2.3 Mission

Provides the base for appropriate coordination, planning, promotion, development and management, and efficient use of energy resources

### 2.4 Broad outcomes

- Development of Energy Legislations.
- Increase access to electricity in urban households’ to 80% by 2025.<sup>1</sup>
- Increase access to electricity in rural households to 35% by 2025.
- Increase access of safe, affordable and reliable petroleum fuels to outer islands and remote rural locations
- Increase the use of renewable energy sources for power generation in urban and rural areas to 50% by 2035.
- Increase the development and penetration of gaseous fuels and alternative liquid fuels from indigenous raw materials.
- Improve energy efficiency and conservation in all sectors by 10% by 2030.

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<sup>1</sup> ADB 2013; Renewable Energy Investment Plan. ADB TA-8130 SOL: Provincial Renewable Energy Project (46014-001). Prepared by SMEC International Pty Ltd.

## 2.5 Guiding principles

The guiding principles are aligned to Solomon Islands; NDS 2016–2035, the Regional Framework for Action on Energy Security (FAESP) and the Sustainable Energy for All Initiative Goals. The ten guiding principles are to be embraced in the implementation of the policy.

**Whole-of-energy-sector:** Instigate a whole-of-energy-sector approach and foster partnerships between the relevant institutions and stakeholders. Each institution's roles and responsibilities are to be recognised through proper delineation of roles and avoidance of repetitive or overlapping activities. A strong leadership with legal mandates should be developed and strengthened to coordinate planning and management in the energy sector. The whole-of-energy-sector approach also means looking at all the options in a holistic manner – how the energy sub-sectors connect to each other e.g. petroleum uses can be minimised through energy efficiency and conservation. The deployment the energy services and technologies is determined by understanding the community's needs, the availability of appropriate energy sources rather than a predetermined application, technology and energy source.

**Environment and climate change:** The energy sector strives to ensure that the environment is protected through the proper management, storage and disposal of renewable energy accessories and parts, energy efficient technologies and parts, and petroleum fuel wastes. While environmental issues are considered the responsibility of the Environment Department, the onus is on private developers and communities to take responsibility for any waste generated through energy sector activities. Climate change is a risk to the development of the nation and therefore efforts to reduce the carbon footprint through the use of renewable energy technologies and energy efficient measures are considered an important part of this energy policy.

**Capacity building, training and research:** Capacity building, training and research in all aspects of the energy sector are continuous efforts that should be integrated into all sub-sector strategies and activities.

**Gender:** Gender is to be recognised as an important element for sustainability of energy programmes and provision of efficient and affordable energy services. The *wantok* communal system continues to be a barrier in promoting equitable distribution of energy projects and programmes. However, gender sensitive approaches should be considered in understanding the different energy needs of men, women, and children, as well as in recognising the ability to pay for, operate and maintain the energy services. The gender sensitive approach considers the traditional decision making process and resource ownership and is therefore inclusive of all members of the society or community.

**Culture and kastom:** the cultural diversity of Solomon Islands is to be valued. Traditional institutions and chiefs form an important part of the country's social fabric and community and, while they are recognised in the country's constitution, they are largely left out of formal

governance and administrative structures (*SPC, Solomon Islands National Policy Framework blong KALSA, 2012*). Acknowledging the traditional administrative structure at the community level and the control and ownership of resources (rivers, land, biomass, etc.) is important for access to land, there by facilitating improvements to renewable energy resources and the installation of renewable energy technologies.

- **Land issues:** Group and individual identity are defined by their relationship with the land. Of the total land area, 87% is customary land and 13% is alienated land. Alienated land was procured during colonial times and its boundaries are surveyed and registered. Customary lands are not surveyed and boundaries are fixed by geographical features such as rivers and ridges. Therefore ownership can be contested by many communities or land-owners. Promoting energy service systems should consider where land access has been secured and that the resource used should benefit only those communities in order to minimise conflicts over land/resource issues.
- **Legislation and regulations:** Updating of legislation and regular review of regulations to align to changes and needs for effective governance and management of the energy sector.
- **Data management and information:** The availability, accessibility and quality of data and information for all key strategic areas are critical in order to make informed decisions and policy interventions. Continued efforts are needed across all sub-sectors for effective and efficient data collection and management.
- **Financing:** Financing the investment plan is required for implementing the policy with its strategies and activities. The energy sector is a high capital infrastructure and therefore all avenues for sourcing funding should be a priority.
- **Investment:** The Ministry of Commerce, Industry, Labor and Immigration (MCILI) is the lead one-stop agency responsible for the formulation and implementation of economic and industrial development strategies for Solomon Islands. The energy sector is currently one of the priority areas for government and this has encouraged investments in the Tina River Hydro Development project and looking towards developing the Savo and Paraso geothermal plants in the future. A conducive and enabling environment for investors is required to increase the uptake of renewable energy technologies. To achieve this, action to be taken could include changes to current policies to include more players (at local, regional and international level) through offering a package of trade and investment incentives for renewable energy and energy efficiency, including duty concessions, investment allowances, tax exemption and tax free regions, low corporate tax rate.
- **Sustainability:** Energy sector management should be improved through a stronger emphasis on sustainability principles: economic growth, social development and environmental protection. Therefore, it is very important to recognise the value of natural resources and communities' contribution and participation in project planning and decision making about energy services and technologies. Development partners and energy service providers should also encompass a user pays principle, support community-based activities that empower

communities, and provide services and assistance that will achieve sustainable development with or without external support.

## 2.6 Energy sub sectors

The Solomon Islands energy sector is divided into six sub-sectors (thematic areas) that have been identified as important. These include:

- Energy Governance;
- electric power (urban);
- electric power (rural);
- renewable energy;
- petroleum and alternative liquid and gaseous fuels; and
- Energy efficiency and conservation.

Each sub-sector is supported with a policy outcome, policy statement, policy details and key priorities. The strategies and investment plans for the energy sub-sectors are developed as separate documents. All are aligned to the policy vision, mission and goals.

## 3 POLICY OUTCOMES AND STATEMENTS

### Thematic area 1: Energy Governance

#### Policy outcome 1.1: Development of Energy Legislations

##### Policy statements

- Strengthening of Energy Governance by adopting the proposed energy act.
- Institutional Capacity strengthening of the administration of energy policy.
- The energy sector is provided with the appropriate legal framework, authority and resources to perform its leadership role.
- Energy sector is legally mandated to perform its leadership role.
- Partnership are established and strengthened with Resources Owners, Provincial, National, Regional and international levels for the development of energy programmes.

##### Policy details

The energy sector is vertically structured with the Energy Division responsible for policy development, rural electrification project and administration of (*The Electricity Act 1969*) *Petroleum Act 1987* and other relevant regulations.

With the 2018 SINEP consultation, the energy governance emphasized on the adopting the energy act to enhance the institutional capacity.

More emphasis on Partnership are established and strengthened with Resources Owners, provincial, National, Regional and international levels for the development of energy programmes are required to support sustainability and financing of the energy policy and strategies.

Regarding a multi-sectoral coordinating mechanism, an energy advisory committee (EAC) will be established to facilitate the whole-of-energy-sector approach to the planning and management of the energy sector.

Capacity building through informal and formal training should be key priority for the Energy Division staff in order to raise the quality of the work on renewable energy, energy efficiency and conservation, and establishing an energy database, licensing for storage of petroleum products, and petroleum safety standards and procedures. Monitoring and evaluation of the energy sector through a more strategic approach, including the use of energy security indicators, must be encouraged in order to improve the reporting on the overall status of the energy sector.



<b>Key priorities</b>	Establish an EAC to coordinate and monitor the implementation of the SINEP.
	Establish an energy regulator through the proposed Energy Act to regulate the energy subsectors: electricity, petroleum, renewable energy, standards
	Reporting regularly on Energy Division programmes including progress towards the energy policy goal and the NDS focus areas.
	Promote and regulate national electrification strategic plan.
	Mainstream the energy sector in other development sectors: transport, agriculture, climate change, education, health and investment.
	Establish a mechanism for the provision of energy data to relevant stakeholders through licensing, registration, fiscal incentive provisions.
	Develop a national energy balance database.
	Build institutional capacity in the areas of petroleum storage, Renewable Energy, Energy Efficiency for regulating and monitoring petroleum supply and demand.
	Review the <i>Petroleum Act 1987</i> and The Electricity Act and other relevant regulations
	Monitor and regulate petroleum supply and demand.
	Promote and strengthen partnerships with relevant financial and investment in the energy sector through presentations at annual investment/development partners' forums.
	Promote and establish international affiliation to world energy commissions.

## Thematic area 2: Electric power (urban)

### Policy outcome 2.1: Access to grid connected electricity in the urban areas increased to 80% by 2020<sup>2</sup>

#### Policy statements

- Establish a reliable, affordable, efficient and sustainable power utility.
- Improve the capacity and condition of the Honiara, provincial centres and outstation networks.
- Develop and implement energy efficiency and conservation in all sectors.
- Extend existing networks to surrounding rural communities where feasible.
- Installation of new renewable energy technologies to all urban grids.

#### Policy details

The electricity sector is managed by the government-owned company, the Solomon Islands Electricity Authority (SIEA). SIEA is totally dependent on diesel for power generation; 80% of energy is produced for Honiara while 20% is for outstations in eight provincial centres. SIEA has a total of 18,000 customers in June 2018. It produces around 94 Gwh of energy annually, using 1.9 million litres of diesel a month for power generation, which contributes to 30% of the total expenses of the company. While SIEA operates in a commercial way, a major challenge is the non-payment of government institutions and commercial and residential customers. The Solomon Islands Sustainable Energy Programme (SISEP) started in June 2009 has improved the operational efficiency, system reliability and financial sustainability of SIEA by improved financial and operational management, reduction of losses, and increased revenue collection. The current focus of SIEA, critical to its ongoing financial sustainability is on:

- reducing arrears from the Solomon Islands Government;
- addressing metering deficiencies and fraud by large commercial/industrial consumers;
- implementing improved financial controls and reporting,
- improving reliability, affordability and accessibility; and
- sustaining and developing human capital
- Reducing reliance on fossil fuels by harnessing renewable sources of energy.
- Ongoing targeted Tariff review

With only 64% electrification rate in the urban areas of Honiara and provincial centres in 2017, SIEA also needs to increase its renewable energy mix to meet the increasing demand for electricity.

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<sup>2</sup> ADB. 2013. Renewable energy investment plan, ADB TA-8130 SOL: Provincial Renewable Energy Project (46014-001). Prepared by SMEC International Pty Ltd. Page 53.

<b>Key priorities</b>	Increase access to affordable electricity in the urban and <b>peri-urban</b> areas. [OBA, Smart meters, Prepay Cash Power, Mobile Top Ups]
	Improve the efficiency of SIEA. - ongoing
	Create a regulatory framework (under the proposed Energy Act) to regulate the participation of independent power producers and integrate power purchase agreements.
	Regulate the provision and standards of renewable energy technologies for on-grid connections. – Revision of Electricity Act Cap. 128 - underway
	Regulate and monitor the electricity tariff as related to increased fuel prices.
	Sustain a 24-hour electricity service to Honiara and the outstations.
	Increase accessibility to electricity by extending the 11 kV and 415 V networks in Honiara and the Outstations
	Install and commission 2 MW solar farm at Henderson (Fighter 1)
	Convert the existing diesel generation at Kirakira, Lata, Malu’u, Munda and Tulagi to solar hybrid systems by mid-2020
	Install and commission 1 MW solar at Tanagai, Honiara (west)
	Install and commission solar hybrid systems and associated distribution networks at Sasamunga, Vonunu, Namugha, Hauhui, Afio, Visale and Tingoa by mid- 2021
	Install and commission Battery Storage Systems at Honiara by mid-2022
	Install and commission Supervisory Control and Data Acquisition Systems for remote control and monitoring in Honiara by end 2021
	Install and commission a Call Centre in Honiara by mid-2021
Install and commission a 1 MW solar farm at Auki	

## Thematic area 3: Electric power (rural)

### Policy outcome 3.1: Access to electricity in rural households and institutions increased to 35% by 2030

#### Policy statements

- Increase the supply and coverage of electricity through technical criteria in responding to community requests in-line with provincial and national strategies.
- Increase the supply of modern energy services through technical criteria to rural schools, telecommunication and health centres.
- Coordination of planned and sustainable energy development consistent with provincial and national government’s objectives with support from donors and development partners.
- Develop a renewable energy policy and a rural electrification policy.

#### Policy details

Access to electricity in both the rural and urban areas has made an exponential progress since 2012. However, there is an increase of 7% rural households that use solar PV systems for lighting in 2009 to 40% in 2013. The 2012-2013 household income and expenditure survey showed an estimate of 108,041 households relying on 40% Solar PV, 30% use electricity and the other 30% uses other sources of energy for lighting. There are about 619 primary schools and health centres that require modern sources of energy. There are 135 high schools and three hospitals that require a reliable and affordable source of electricity. A capacity of 300 Watts solar PV home systems with batteries (sealed) are appropriate for these rural and remote services and households while off-grid mini and micro hydro–power of 5,000 Watts are appropriate at the community level within the specific hydro site.

<b>Key priorities</b>	Standardizing and Sustainability of renewable energy technologies in rural areas
	Regulate the provision and standards of renewable energy technologies.
	Regulate the price and quality of petroleum, power/electricity and other energy sources.
	Promote legislation and fiscal incentives to encourage wide use of renewable energy.
	Deployment of energy services that will create employment opportunities at the community level
	Create awareness and include training opportunities for renewable energy opportunities and technologies on wind, biomass and hydro resources.

## Thematic area 4: Renewable energy

### Policy outcome 4.1: Use of renewable energy sources for power generation in urban and rural areas increased to 50% by 2035

#### Policy statements

Establish an appropriate, reliable, affordable and sustainable renewable energy-based power supply.

Assess, cost, promote and enhance the potential for renewable energy resources.

Increase productivity in rural communities with the use of renewable energy services.

Develop renewable energy policy instruments (standards and regulations, net metering policies, market-based instruments, procurement strategies) to meet the renewable energy targets.

Facilitate contextually appropriate partnerships model in development of renewable energy.

Establishment of renewable energy act.<sup>3</sup>

#### Policy details

The share of renewable energy for power generation in Solomon Islands in 2018 was only 2%. A renewable energy resource summary shows the generating electricity capacity for the different renewable energy resources:

- geothermal: available but not fully explored, with estimated potential between 20 to 200MW;
- hydro: small hydro approximate potential of 11 MW, a total estimated hydro potential of approximately 300 MW;
- wind: Limited detailed wind assessment has been carried out;
- solar energy: solar radiations estimated at 5.5 to 6.5 kWh/m<sup>2</sup>/day with potential for small, off-grid solar schemes of a total capacity of less than 1 MW;
- traditional biomass energy: timber wood/forest waste and biofuel with an approximate potential of 20 MW; and
- Off-grid biomass/biogas schemes to serve rural communities with total potential of about 500 kW.

The Levelised Cost of Energy (LCOE) for different renewable energy options and technologies shows that solar PV appears to be the best option for renewable generation in remote villages. Solar PV costs USD 0.24 per kWh, while other options of a hybrid of a solar PV system with a biomass gasifier or with biofuel and hydro have an LCOE between 0.27 and 0.28 USD per kWh, with the exception of wind at 0.50 USD per kWh. However the utility scale renewable generation options such as the Tina Hydro Development Project and The Savo, and Paraso Geothermal will have a lower LCOE.<sup>3</sup>

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<sup>3</sup> ADB. 2013. Renewable Energy Investment Plan TA-8130 SOL: Provincial Renewable Energy Project (46014-001).

Increasing renewable energy largely depends on public policies that foster public / private partnerships and create policy instruments for renewable energy. These policy instruments include the setting up of regulations and standards, quantity instruments, procurement strategies and price instruments.

Research, development and assessment of renewable energy technology options, including biomass gasification, is considered vital due to the high land mass area of Solomon Islands. The scaling up of successful trials on bio-fuel use for power generation and transport also requires policy support.

<b>Key priorities</b>	<ul style="list-style-type: none"> <li>○ Establish guidelines on the sustainability of renewable energy technologies in rural areas, schools, telecommunications and health centres in partnership with communities and government sectors.</li> </ul>
	<ul style="list-style-type: none"> <li>○ Monitor and maintain renewable energy projects (Tina River Hydropower and Geothermal schemes and provincial centres RE projects)</li> </ul>
	<ul style="list-style-type: none"> <li>○ Proper dispose of used equipment, such as batteries, lights, bulbs, accessories.</li> </ul>
	<ul style="list-style-type: none"> <li>○ Regulate and Monitor renewable energy resources and technology standards, such as biofuel and solar PV home systems.</li> </ul>
	<ul style="list-style-type: none"> <li>○ Create and regulate financial incentives, standards and market-based policy instruments in meeting the renewable energy targets.</li> </ul>
	<ul style="list-style-type: none"> <li>○ Promote research and development, and demonstrations (RD&amp;D).</li> </ul>

## Thematic area 5: Petroleum and alternative liquid and gaseous fuels

### Policy outcome: 5.1: Access to safe, affordable and reliable petroleum products and alternative liquid fuels and gaseous fuels increased

#### Policy statements

The monitoring and regulating of petroleum prices is done through transparent and coordinated methods.

A reliable supply of standard petroleum products at landed cost is supplied to all people in Solomon Islands.

Petroleum storage and handling facilities conform to local and international safety and environmental standards (ISO IS1940).

Guidelines of petroleum products dispose of petroleum-related wastes to attain minimum certified environment standard.

Research in alternative liquid and gaseous fuels is promoted, supported and well-coordinated.

#### Policy details

The energy sector remains dependent on petroleum products for driving the economy, in particular the electricity and transport (land, air and sea) sectors, and therefore it is very important that the petroleum sub-sector is regulated properly to maintain fair and unbiased prices to both the suppliers and the users. What remains a challenge in Solomon Islands is the proper handling, storage and distribution of the petroleum products in the outer and remote islands. In addition, enforcement of the *Price Control Act* in the outer islands is not effective due to the lack of human resources and financial constraints. A one cent levy on the imported petroleum product was recommended to assist the Price Control Unit to check that proper prices are applied in rural and remote areas. *The Petroleum Act 1978* is also outdated, with provisions for fines irrelevant and inappropriate. There are currently no safety and environmental standards due to limited capacity in developing these standards. While there may be international standards that are available, these standards need to be adapted to the local context. Activities related to alternative fuels are limited to small-scale use trials, such as the ADB and SIEA 360 kW biofuel plant trial in Auki. SIEA is promoting the use of coconut oil. In addition, SIEA has amended its electricity act to encourage independent power producer.

The challenges faced by SIEA in maintaining the use of coconut oil is the shortage of supply due to the limited supply of copra from plantation owners and farmers. There is also competition from well-established exporters to foreign markets with links to local farmers. The potential for harnessing biomass through the gasification process of by-products and forest waste needs to be properly assessed.

<b>Key priorities</b>	Improve the supply of petroleum products to outer islands and remote locations
	Establish fuel storage (depots) to the islands for ease of distribution
	Effectively monitor the regulated petroleum prices in the nine provinces.
	Encourage the use of alternative liquid fuels in power generation and transport through <ul style="list-style-type: none"> <li>• Support private sector to establish professional alternative fuel producers;</li> <li>• Supporting primary producers that can supply raw materials; and</li> <li>• Construct infrastructure as necessary to support new alternative fuel industry.</li> </ul>
	Provide financial support/investment to support primary producers that supply raw materials for alternative fuels.
	Invite private sector companies to identify markets and invest in land transport fuels and power generation capacity in addition to SIEA.
	Review of Petroleum Handling and storage Act.



## Thematic area 6: Energy efficiency and conservation

### Policy outcomes 6.1 Improve energy efficiency and conservation in all sectors by 10% by 2030.

#### Policy statements

- Promote energy conservation and efficiency measures at government, residential and industrial sectors.
- Promote energy efficiency and conservation in Agriculture, Building and Transportation sector.
- Encourage energy efficiency in appliances, equipment and technologies.

#### Policy details

The standards on efficient appliances and the ways in which electricity use in households, government buildings and public institutions, as well as petroleum use in the electricity and transport sector, are all part and parcel of this energy sub-sector. Information sharing and dissemination on energy efficient practices and appliances is important. Information is more easily conveyed to people through demonstration, yet there have been few demonstrations of energy efficient appliance in past years. A regional programme has been developed to reduce this gap in most countries where energy efficiency has not been a priority for the government. Solomon Islands need to commit its resources to promoting, regulating and increasing the use of energy efficient appliances and electric vehicles.

<b>Key Priorities</b>	Residential, Commercial and Industrial sector initiatives	Carry out demand-side management activities. Conduct energy audits of commercial and industrial buildings.
	Government led activities	Carry out extensive data collection and collation. Conduct energy audits of government-owned buildings. Conduct government energy awareness programmes. Replace inefficient lights. Reduce overall electricity consumption.
	Agriculture, Building and Transportation Sector	Carry out demand-side management activities. Conduct energy audits of Agriculture, Building and Transportation Sector.
	Public awareness	Conduct energy awareness programmes in Honiara and outer islands. Develop and adapt course materials for use in schools.
	Appliances, equipment and technologies	Continue to enforce energy labelling and standards for freezers, refrigerators, lights and air conditioners and expand to other electrical appliances. Offer tax incentives for the use of energy efficient vehicles

## 4 LINKING THE POLICY TO THE STRATEGIES AND INVESTMENT PLANS

The strategies and investment plans<sup>4</sup> for each policy sub-sector are developed as separate volumes to this policy document. The Energy Programme of the Economic Development Division of the Secretariat of the Pacific Community is providing technical assistance in developing both the *Energy efficiency and conservation strategies and investment plan* (EE-EC-IP) and the *Petroleum strategies and investment plan* (PS-IP). The ADB has formulated the *Renewable Energy Investment Plan* (RE-IP), which includes strategies, activities and investments for both urban and rural electrification. SIEA is formulating its *Power sector strategies and action plan* which is also aligned to this policy framework.

The strategies for each energy sub-sector are presented in Tables 1 to 6. The strategies are to guide the formulation of short-term and long-term activities for achieving the goals and targets for each sub-sector. The investment costs and responsible agencies are also highlighted in the policy so to get a clear estimate of the capital investment required for implementing the policy.

**Table 1: Energy Governance strategies and investment costs**

<b>Thematic Area 1: Energy Governance</b>	
<b>Policy outcome: Strengthening of energy governance through an integrated approach by adopting the energy act.</b>	
<b>STRATEGIES</b>	<b>Policy statement 1.1</b> Strengthened energy sector leadership and planning through an integrated approach to policy implementation.
	1.1.1 Appropriate the mandate for EAC and representation.
	1.1.2 Support the regulation of the energy sector – off-grid and on-grid electrification.
	1.1.3 Establish standards and certification to cover all electrical equipment.
	1.1.4 Support of Holistic Review of Petroleum Act, Electricity act and development of new energy legislations.
	1.1.5 Prioritize the formulation and enacting of an Energy Act.
	1.1.6 Developing of Energy legislation.
	<b>Policy statement 1.2</b> The energy sector is provided with appropriate level of resources (financial and human) to perform its leadership role.
	1.2.1 Submit annual budgets on time.
	1.2.2 Follow processes for membership with donor agencies and meet deadlines.
	1.2.3 Identify funding services.
	1.2.4 Identify specific Professional staff development and empower Institutions.

<sup>4</sup> SPC, in collaboration with the Energy Division, has developed energy efficiency and conservation and petroleum strategies and investment plans for 2013–2018.

	<b>Policy statement 1.3</b> Partnerships are established and strengthened at local, national, regional and international levels for the development of energy programmes and projects.
	1.3.1 Develop Targeted training program in relevant institutions and awareness campaigns for communities on energy projects, Operations and Maintenance renewable Energy Project
	1.3.2 Promote appropriate institutional structure and set up for E-project planning and implementation.
	1.3.3 Holds timely meetings of energy working groups and energy advisory committees with meeting records documented.
	1.3.4 Secure partnership with Tribal resource owners groups prior to submissions of Energy Projects.
<b>Responsible agencies</b>	<ul style="list-style-type: none"> <li>• Ministry of Mines, Energy and Rural Electrification, Energy Division</li> <li>• Energy Advisory Committee members, including Ministry of Public service; Public Service Commission; Attorney General’s Chamber; SIEA; Solomon Islands National University; Ministry of Education &amp; Human Resources Development; Ministry of Foreign Affairs &amp; External Trade; Ministry of Finance &amp; Treasury; Ministry of Development Planning &amp; Aid Coordination; Ministry of Provincial Government; Ministry of Rural Development; Ministry of Commerce, Industries, Labour &amp; Immigration. Ministry of Lands, Housing &amp; Survey</li> </ul>
<b>Estimated inputs</b>	USD 4.18 million (2014–2017) <sup>5</sup>

<sup>5</sup>Exchange rate : 1 SBD to 0.1264 USD

**Table 2: Electric power (urban) strategies and investment costs**

<b>Thematic area 2: Electric power (urban)</b>	
<b>Policy Outcome 2.1</b> Access to grid-connected electricity in the urban areas increased to 75% by 2020	
<b>STRATEGIES</b>	<b>Policy statement 2.1</b> Establish a profitable, efficient and sustainable business
	2.1.1 Sustain the performance of SIEA to continue to operate commercially to deliver safe, reliable, affordable and efficient electricity services.
	2.1.2 SISEP will be phased out with SIEAREEP 2020.
	2.1.3 Review non-fuel tariff component every five years from 2020.
	<b>Policy statement 2.2</b> Improve the capacity and condition of the Honiara and outstations network
	2.2.1 Construction of 66kV line for Tina River connection to Lungga Power Station and Tanagai and complete and replace with new point of supply at Tanagai.
	2.2.2 Expansion of the 11KV and 415 V network to neighbouring communities(East and West)
	2.2.3 Install new 8MW grid connected solar system
	<b>Policy statement 2.3</b> Develop and implement energy efficiency & conservation programme
	2.3.1 Improve awareness and understanding of energy efficiency and conservation in all sectors.
	2.3.2 Investigate non-technical losses and implement actions
	2.3.3 Resolve and implement street – lighting issues
	<b>Policy statement 2.4</b> Extend existing networks to surrounding rural communities where feasible
	2.4.1 Develop and strengthen collaboration between Ministry of Lands and SIEA to address land access for transmission and distribution.
	2.4.2 Establish an independent body to regulate electricity supplies and standards to maintain quality.
	2.4.3 Establish an independent body to regulate the independent power producers and power purchase agreements.
	<b>Policy statement 2.5</b> Install renewable energy technologies for demonstrations (head office and solar farm)
2.5.1 Install 220kW roof top solar at Head office in Ranadi and 2 MW solar at Henderson (fighter 1)	
2.5.1 Install & Operate 50 Mini Grid Systems (Semi Township)	
Responsible agencies	SIEA, Energy Division, Ministry of Land, Honiara Town Council, prospective independent power producers, Asian Development Bank, World Bank, CIF-SREP
Estimated inputs	USD 64 million <sup>6</sup> (2014–2017)

<sup>6</sup>SIEA Capex Project 2014–2017

**Table 3: Electric power (rural) strategies and investment costs**

<b>Thematic area 3: Electric power (rural)</b>	
<b>Policy outcome:</b> Access to electricity in rural households and institutions increased to 20% by 2025	
<b>STRATEGIES</b>	<b>Policy statement 3.1</b> establishes technical criteria to increase the supply and coverage of electricity by responding to new community requests.
	3.1.1 Encourage extension of SIEA to nearby rural communities liaising with Town Planning Boards.
	3.1.2 Encourage public private partnership (PPP) for power generation.
	3.1.3 Encourage rural communities to establish electrification committee including technical trainings
	3.1.4 Establish new off-grid system for new sites or communities.
	<b>Policy statement 3.2</b> Increase the supply of modern energy services in rural schools, telecommunication and health centres.
	3.2.1 Improve and increase the current use of Renewable Energy sources/ Technologies through good supply chain
	3.2.2 Encourage the use of other renewable energy sources, including geothermal, biofuels.
	3.2.3 Work with communities and townships to establish electrification for rural communities.
	<b>Policy statement 3.3</b> Planned and sustainable energy development consistent with government objective <sup>7</sup>
	3.3.1 Develop policies to include regulators and CSO for managing Independent Power Producers
	3.3.2 Develop and implement land access policy and strategy
	3.3.3 Develop a National Public Private Partnership (PPP) Policy for power generation
	<b>Policy statement 3.4</b> Develop a renewable energy policy and rural electrification policy
	3.4.1 Implement the Rural Electrification Master Plan (JICA-funded project) and recommendations in the 2006 Maunsell <i>Report on review of the Solomon Islands Electricity Act and Rural Electrification Framework</i> .
3.4.2 Implement the renewable energy and rural electrification policies	
Responsible agencies	SIEA, Energy Division, prospective independent power producers, Asian Development Bank, Renewable Energy Services Company, Regulator
Estimated inputs	USD 15.20 million <sup>8</sup> (2018–2023)

<sup>7</sup>This policy statement is also relevant to the RE policy statement and strategies

<sup>8</sup>Costs only for 619 primary schools and health centres with 2 kW capacity including telecommunication use.

**Table 4: Renewable energy strategies and investment costs**

<p><b>Thematic area: Renewable energy</b>  <b>Policy outcome:</b> The use of renewable energy sources for power generation in urban and rural areas increased to 50% by 2020<sup>9</sup> (baseline year 2011 with power generation of 82.4GWh).</p>	
<b>STRATEGIES</b>	<p><b>Policy statement 4.1</b> Establish an appropriate, reliable, affordable and sustainable energy-based power supply systems.</p>
	<p>4.1.1 Support the development and implementation of the Tina River Hydropower Development Project (TRHDP).</p>
	<p>4.1.2 Support the development and implementation of the Savo Geothermal Project.</p>
	<p>4.1.3 Improve SIEA energy services through off grids (hydro and solar) and generating plants.</p>
	<p>4.1.4 Replicate successful public / private partnership models for mini hydro systems and solar PV.</p>
	<p>4.1.5 Replicate successful and scaling-up of deployment of solar PV home systems.</p>
	<p>4.1.6 . Develop criteria to prioritize provision and develop maintenance schedule of renewable energy infrastructure (using socio- economic indicators</p>
	<p>4.1.7 Develop appropriate frameworks for independent power producers.</p>
	<p>4.1.8 Develop appropriate frameworks and laws to manage land access for renewable energy projects.</p>
	<p><b>Policy statement 4.2</b> Assess, cost, promotes and enhances the potential for renewable energy resources.</p>
	<p>4.2.1 Undertake an assessment of wind energy potential.</p>
	<p>4.2.2 Undertake an assessment of geothermal energy potential.</p>
	<p>4.2.3 Undertake an assessment of biofuel potential based on coconut.</p>
	<p>4.2.4 Undertake an assessment of gasification potential from by-products and forest waste.</p>
	<p>4.2.5 Undertake an assessment of existing solar energy users and solar energy potential</p>
	<p>4.2.6 Promote research and development of other new renewable energy technologies.</p>
	<p>4.2.7 Support the assessments on the suitability of renewable energy technologies.</p>
	<p>4.2.8 Develop training and capacity development on new renewable energy technologies.</p>
	<p>4.2.9 Complete feasibility studies and reports for all renewable energy potential sites and make them available for planning purposes.</p>

<sup>9</sup> Estimate 2020 generation is 115.8GWh (BlizClim study in 2012). The REIP RE target is 100% RE use by 2050.

	4.2.10 Present investment costs against deployment of renewable energy technology at donor roundtable discussions.
	<b>Policy statement 4.3</b> Increase economical productivity in rural communities with the use of renewable energy services.
	4.3.1 Encourage the establishment of economical rural centres powered by renewable energy at provincial level.
	4.3.2 Encourage Renewable Energy Services Company (RESCO's) involvement in productive uses of renewable energy sources.
	4.3.3 Promote the use of renewable energy technologies for rural ICT stations
	4.3.4 Promote the use of renewable energy technologies in rural schools and health centres.
	4.3.5 Promote the use of low-cost specific renewable energy technologies (e.g. solar charging stations, solar pico lanterns).
	<b>Policy statement 4.4</b> Develop renewable energy policy instruments (standards, net metering policies, market-based instruments, and procurement strategies) to meet the renewable energy targets.
	4.4.1 Develop a clear policy on tax holiday incentives and duty tax exemptions for renewable energy technology deployment. <sup>10</sup>
	4.4.2 Develop enabling instruments and initiatives to encourage RESCO and financial institutions to invest in renewable energy initiatives.
	4.4.3 Promote benefits to financial institutions to provide concessional loans and term extension funds for renewable energy electrification projects.
	4.4.4 Promote and support the financing of the Renewable Energy Investment Plan
	4.4.5 Regulate relevant standards for on-and off-grid connections of renewable energy technologies.
	<b>Policy statement 4.5</b> Facilitate partnerships in development of renewable energy developments.
	4.5.1 Develop an appropriate framework for access to land for renewable energy developments.
	4.5.2 Develop a framework for public and private partnership.
Responsible agencies	SIEA, Energy Division, prospective independent power producers, Asian Development Bank, Renewable Energy Services Company
Estimated inputs	USD 60.05 million <sup>11</sup>

<sup>10</sup> The proposed National Energy Advisory Committee TOR is also to approve tax incentives for renewable energy technologies. Therefore the Income Revenue Department is to be included as one of the members.

<sup>11</sup> Based on RE investment plans' estimated projections for mini-grid (pico hydro) and solar power home systems based on REIP Report V1.1

**Table 5: Petroleum and alternative liquid/gaseous fuels strategies and investment costs**

<b>Thematic Area: Petroleum and alternative liquid/gaseous fuels</b>	
<b>Policy outcome:</b> Access to safe, affordable and reliable petroleum products and alternative liquid fuels increased	
<b>STRATEGIES</b>	<b>Policy Statement 5.1</b> The monitoring and regulating of petroleum prices is done through transparent and coordinated ways.
	5.1.1 Ensure an appropriate and effective regulatory framework is in place.
	5.1.2 Ensure compliance to regulated oil and gas prices.
	<b>Policy Statement 5.2</b> A reliable supply of quality petroleum products at landed cost is supplied to all people in Solomon Islands.
	5.2.1 Ensure a secure and reliable supply of petroleum products within Solomon Islands.
	5.2.2 Develop appropriate technical guidelines and standards for oil storage permits Adopt Appropriate technical guideline and standards for petroleum storage permits.
	5.2.3 Fuel product supplied to the SI should be from reputable and accredited suppliers
	5.2.4 Ensure a minimum stockholding supplies for 3 months implemented by all fuel companies
	5.2.5 Establish a petroleum hub through a partnership for storage and handling that is recognized nationally, regionally and internationally.
	<b>Policy statement 5.3</b> Petroleum storage and handling facilities conform to local and international safety and environmental standards.
	5.3.1 Ensure that petroleum storage and handling facilities conform to local and international safety and environmental standards. Ensure that petroleum storage and handling facilities conform to AS1940, API650-653 and other relevant standards
	5.3.2 Ensure that petroleum storage & handling to adopt a risk management framework/plan as relevant industry
	<b>Policy statement 5.4</b> Suppliers and users of petroleum products dispose petroleum related wastes in an environmentally sound manner.
	5.4.1 Ensure that the draft contingency oil spill plan is finalised and implemented.
	5.4.2 Ensure there is regulation for disposal of petroleum-related wastes.
	<b>Policy statement 5.5</b> Research in alternative sources of liquid and gaseous fuels is promoted, supported and well-coordinated.
	5.5.1 Promote the use of bio-fuel for power generation and transportation.
	5.5.2 Research and demonstrate appropriate design of biogas digesters.
5.5.3 Promote the use of LPG for cooking and lighting	



Responsible agencies	Price Control Unit of the Ministry of Commerce, Industry, Labour and Immigration; petroleum companies, Ministry of Environment, Energy Division; copra oil producers, SPC – Petroleum Advisory Team
Estimated inputs	USD 1.67 million

**Table 6: Energy efficiency and conservation strategies and investment costs**

<b>Thematic area: Energy efficiency and conservation</b>	
<b>Policy outcomes: Improve energy efficiency and conservation in all sectors by 10% by 2030.</b>	
<b>STRATEGIES</b>	<b>Policy Statement 6.1</b> Promote energy efficiency and conservation measures at government, residential, commercial and industrial sectors
	6.1.1 Encourage demand side management and ensure the transformation towards a more efficient use of energy
	6.1.2 Ensure wider public engagement in energy efficiency and conservation
	<b>Policy Statement 6.2</b> Promote energy efficiency and conservation in Agriculture, Building and Transportation sector
	6.2.1 Carry out demand-side management activities.
	6.2.2 Conduct energy audits of Agriculture, Building and Transportation Sector.
	<b>Policy Statement 6.3</b> Encourage conservation measures and energy efficiency in appliances, equipment and technologies.
	6.3.1 Regulations to Ensure there is appropriate standards, guidelines and tax incentives for the use of energy efficient appliances, equipment and technologies are enacted ( <b>National cooling road map &amp; National Low Emission Strategy 2020 – 2050 developed</b> )
	6.3.2 Ensure to conduct quarterly monitoring of relevant regulations with relevant stakeholders
	6.3.3. Adoption of relevant guidelines as a signatory to the Montreal protocol
6.3.4 Develop a certification system for handling licences for RAC Technicians to Practice and Safety Standards Regulations on Handling of flammable gases.	
6.3.5. Develop and adopt a Solomon Islands Refrigeration, Air-Conditioning Association (SI RAC) and Standard Code of Practice that will relate to Montreal Protocol obligations	

	6.3.6 Reduction target of 35% on the baseline on Hydro chlorofluorocarbons Refrigerants (HCFC's) to be achieved under HPMP Stage 1- Tranche 1 (Hydro chlorofluorocarbon Phase-Out Management Plan).
	6.3.7.Reduction target of 100% by 2030 implemented under HPMP Stage II currently ongoing
	6.3.8. Ensure that all compliance to ratify different ODS Amendments are monitored.
	6.3.9.Review of current regulation to develop new Licences/Permit certification to import and export Refrigerant Gases
	6.3.10. Introduce an e-Licensing system to help upgrade data recordings and quota system of ODS gas imports/exports and other refrigerants involved.
	6.3.11. Encourage Awareness to continue the Enforcement of MEPSL on currently regulated restricted electrical products.
	6.3.12. Expand MEPSL program to cover other appliances and Energy technologies, such as TV and Solar panels by 2025.
	6.3.12. Phase out general purpose incandescent light by 2021
	6.3.14. Continue to maintain PAD database and support in its appliance coverage expansion.
	6.3.15. Encourage and introduce the use of EV in the transport sector and its supporting infrastructures by 2030.
Responsible agencies	Pacific Appliance Labelling Standards (PALS), National Ozone Unit–SPC, Energy Division, SIEA, 27 heads of ministries and staff, energy efficiency companies (EECOS), Customs Department, oil companies, and provincial councils, Ministry of Education and Human Resources Development (MEHRD), NGOs, PIDF, Development Partners.
Estimated inputs	USD 6.29 million (2018 – 2023)

## **5. SCALE OF IMPLIMENTATION**

### **5.1 INSTITUTIONAL FRAMEWORK**

The Energy Division is the leading coordinating agency for implementing the policy, while the administration and oversight of the progress is to be monitored by a high-level multi-sectoral committee to be known as the Energy Advisory Committee (EAC). The Ministry of Development Planning and Aid Coordination is the key member of the committee and its coordinating role in promoting congruence between government priorities and donors is considered important. The EAC is to be chaired by the Permanent Secretary of the Ministry of Mines, Energy and Rural Electrification, with core members from the 12 ministries, as illustrated in Figure 1.

A technical working group (TWG) is required to provide technical advice on the implementation of energy projects and programmes. The TWG will include alternate members from the various energy sub-sectors, including the electricity/power companies, petroleum oil companies, a regulatory body such as the Commerce Commission, the Price Control Unit, and related government ministries and private agencies, including donor partners. The proposed TWG is to report to the EAC on project implementation and progress and is to be coordinated and chaired by the ED, which also provides technical support and reporting to the EAC. The TWG will allow external project partners, such donors, Division or consultants to provide and also get feedback on projects implementations. The proposed institutional structure is provided in Figure 1.

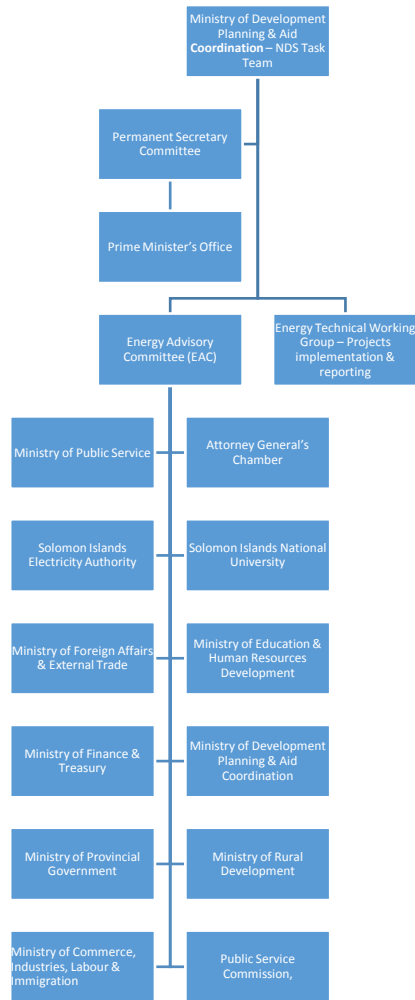


Figure 1: Composition and management structure of the Energy Advisory Committee

## 5.2 GOVERNANCE AND REGULATION

The current institutional framework for governance and coordination is vertically structured and there is no overall coordination or regulation for the energy sector. Petroleum pricing and storage are regulated through the *Price Control Act* and *Petroleum Act* respectively but both acts need updating as the fines are outdated.

Consideration should be given to the merits of developing an energy act to mandate new efforts under the policy and subsequent strategies. An energy regulator is to be established under the proposed energy act, which mandates the terms and conditions of the independent power producers, and regulates standards for off-grid and on-grid connections and other energy sector regulations.

During the National Energy Forum 2013, there was a recommendation that the Commerce Commission be engaged to regulate the RE standards and certification. However, technical knowledge and capacity development are needed to set up and regulate standards for all relevant stakeholders.

### **5.3 MONITORING AND EVALUATION**

To monitor the progress of the 2019 SINEP, a log-frame matrix is to be put together with strategies and activities, performance indicators, means of verification and time-lines. The log-frame matrix will become an implementation plan for the policy. Each energy sub-sector has goals and quantified targets, which can be easily monitored. A review of the implementation plan is to be done annually, and this should indicate what needs to be done if monitoring shows a lack of progress.

The progress of SINEP will be monitored and performance evaluated against the performance indicators of the policy and against the energy security indicators. The 2009 energy security indicators, 2012/2013 HIES and 2019 energy security indicators for Solomon Islands can be used as a baseline for planning and monitoring progress if there is no other baseline information available.

In addition, SINEP outputs should also be monitored according to the NDS objectives and goals. The policy outcomes, statements, strategies and activities are to be mainstreamed into the MMERE Corporate Plan, which then feeds into NDS policies and strategies thus progress to be assessed effectively at a macro level.

## **ANNEXES 1: LIST OF ORGANIZATION INTERVIEWED AND CONSULTED**

<b>Government</b>
Central Bank of Solomon Islands
Customs & Excise Division
Foreign Investment Division of the Ministry of Commerce, Industry and Immigration
Ministry of the Prime Minister's Office
Ministry of Education and Human Resources Development
Ministry of Environment, Conservation and Disaster Management
Ministry of Infrastructure and Development.
Ministry of Development Planning and Aid Coordination
Ministry of Mines Energy and Rural Electrification
Ministry of Rural Development
Price Control Unit of Ministry of Commerce, Industry, Labour and Immigration
Solomon Island Electricity Authority

<b>Development partners and CROP agencies</b>
Asian Development Bank
Clinton Foundation
IUCN-Oceania Regional Office
Japanese International Cooperation Agency – Solomon Islands
New Zealand High Commission
Pacific Power Association
Secretariat of the Pacific Community
United National Development Partners – Solomon Islands Office

<b>Private sectors and civil societies</b>
Development Services Exchange
Downstream Community
FSII
Humphrey Engineering Ltd
InterAction Corporation
Rokotanikeni Women's Group
Solomon Island Maritime Transport Association
SIWIBA

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