

**Solomon Islands Government** 

# **National Energy Policy Framework**

ENERGY DIVISION Ministry of Mines and Energy PO Box G37 Honiara Solomon Islands

## Solomon Islands National Energy Policy Framework

## 1. INTRODUCTION

The National Energy Policy Framework sets out the Government's policies for the planning and management of the energy sector over the next 10 years. The framework defines the strategies that government is taking to ensure that the objectives of the policies are fully realised. In developing the energy policy framework government is mindful of the critical role of the energy sector in the attainment of its overall socio-economic development goals of improving the livelihood of all its peoples.

#### **Important Policy Considerations for the Solomon Islands**

There are three principal energy policy considerations detailed in the Solomon Islands National Energy Policy Framework, namely:

(i) **Supply issues:** For the Solomon Islands the provision of adequate, secure, and costeffective energy supplies through the promotion of indigenous energy resources specifically renewable energy resources using the least cost options and to diversify the energy dependence among several types of sources and suppliers are critical. Diversifying the supply sources will also mean the Solomon Islands developing strategic partnerships locally and abroad.

(ii) Utilisation issues: The efficient utilization of energy and to discourage wasteful and nonproductive patterns of energy consumption is vital for a country that is so dependent on imported energy sources.

(iii) Environmental issues: Like most Pacific Island countries the Solomon Islands have a fragile environment and government always places environmental issues high on its agenda. Therefore it is important that the energy policies are targeted at minimising the negative impacts of energy production, transportation, conversion, utilisation and consumption on the environment.

This policy framework provides details of how the government of the Solomon Islands can effectively address the three critical considerations highlighted above. Along this line the policy framework has identified twelve strategic areas on which appropriate policies are formulated.

#### A. Energy Sector Planning, Coordination and Management

- **B.** Petroleum Sector
- C. Transport Sector
- D. Electricity Sector Urban
- E. Electricity Sector Rural
- F. Renewable Energy
- G. Environment
- H. Energy Conservation and Efficiency
- I Capacity Building and Information
- J. Legislation and Regulations

### K. Financing

L. Gender

## 2. BACKGROUND

### A. Energy Sector Planning, Coordination and Management

This strategic area covers the institutional aspects of energy sector planning and management. It is important that a well defined institutional structure is in place to coordinate energy sector planning and management. The role of the coordinating unit/organisation cannot be over emphasized given that energy cuts across all other sector development programmes. It is important appropriate level of well-trained staff are in posts to ensure that institutional capacity commensurate with expected function of the planning unit. In addition, resources such as funding, office space and equipment, tools and equipment for implementing projects, vehicles, computers, etc are vital to the execution and accomplishment of the institutional functions.

#### B. Petroleum Sector

The SI is heavily dependent on petroleum fuels to sustain its economy. It is only prudent for the Government to put in place appropriate policy statements that are able to cushion the negative impacts of escalating fuel prices. With an unlikely falling in fuel price to the 1990's price foreseen to happen immediately, practical and stringent measures by way of policies must be put in place to prevent further damage to the economy.

The provision of a secure, reliable and affordable fuel supply to both urban and rural areas is of paramount importance. Storage facilities and fuel supply infrastructure in the SI require stringent adherence to international and national safety standards. Fuel quality is also of importance and the development of national fuel standard is fundamental to an efficient and sustainable petroleum sector.

### C. Transport Sector

The transport sector in the context of this policy framework constitutes land and sea modes of transportation. In the SI the transport sector is the biggest consumer for imported petroleum fuels. Measures will have to be devised to ensure that the transport sector functions efficiently. To reduce imported fuel consumption in the transport sector, research in alternative sources of fuel will have to be promoted. The importation of efficient vehicles into the country will need to be regulated and this will call for the revision of existing regulations and enactment of new ones.

#### D. Electricity Sector - Urban

The supply of electricity in the urban areas is the sole responsibility of the Solomon Islands Electricity Authority (SIEA). SIEA is a government statutory authority established under an Act of parliament and as such it is influenced by decisions directed by Government with regards its operation. It also has some commercial influence by virtue of its status (statutory authority).

SIEA has a mix of generating plants – thermal and hydro. SIEA's operation was badly affected by the ethnic tensions of the early 2000. State of the power infrastructure has deteriorated over the years that needed rehabilitation. SIEA had also run into financial difficulties due to nonpayment of electricity bills from its large power consumers and management limitation. This in a lot of ways affected SIEA's ability to supply power to Honiara on a continuous and reliable basis.

With assistance from strategic partners such as AUSAid and the Japanese Government, SIEA has been able to come out of its predicament to improve the power situation in Honiara through increased generation capacity, improved operational efficiency through a regular scheduled maintenance programme, upgraded distribution system and improved billing system. Training has been provided through the Japanese Government to enhance the skill levels of SIEA Engineers in both technical and management areas.

This improvement in operational efficiency and capacity building will enhance SIEA's capability to perform its functions effectively.

SIEA also has the responsibility of operating and managing some outer islands power supply systems. These are mainly provincial centres whose power demand is usually negligible forcing most of the systems to operate intermittently.

The restructuring of the urban power sector to allow Independent Power Producers (IPPs) and encouraging competition in the delivery of power services is a prudent policy measure.

#### E. Electricity Sector - Rural

The provision of electricity into the rural areas is seen as a high priority in the SI. Majority of the population live in the rural areas and access to electricity is below 20%. Generally, rural areas have always been neglected in terms of development. Infrastructure development to provide improved health, education, communication and transportation facilities and services are lacking. In certain remote areas, the facilities and services are non-existent.

It is envisaged that the policy statements highlighted here will compliment the Rural Electrification Framework currently being developed in conjunction with the review of the existing Electricity Act.

Policy measures encouraging the involvement of private investors and development of strategic partnerships with NGOs and donors will accelerate the provision of electricity into the rural areas.

#### F. Renewable Energy

Renewable energy is a fast growing industry worldwide. There are several characteristics that favour renewable energy over the traditional energy sources. The fact that it is renewable offers a guarantee that it will always be present and will never run out. It is a clean source of energy and does not emit any global warming gas. The technology used in harnessing the renewable energy source is easy to operate and maintain. The cost associated with operating a renewable energy project is only a fraction of the cost of operating a conventional energy technology such as a diesel generator used in a similar situation and application. Solar PV is used widely in the Pacific and there is capacity to handle design, installation, repairs and

maintenance work in the Solomon Islands. Solomon Islands has great hydro-power potential resource (roughly 200-300MW in total) and needs careful planning to harness this source of energy to ensure its sustainability as a renewable energy source that the country can rely on. There is potential for harnessing of biomass (bio-fuel) also but the country needs to quantify the available energy we can tap from this resource. There are geothermal energy sources in some parts of the country. Investigations into how much wind energy potential the country has especially on parts of the country that are located further away from the equator need to be assessed to ascertain how wind energy could be utilized.

#### G. Environment

With more and more emphasis on the preservation of the environment, it is important that energy programmes are designed in such a way that they do not contribute further to the degradation of the environment. Energy sources especially fossil fuel based sources have been linked closely with the greenhouse gas emissions that are supposedly causing global warming and extreme changing weather patterns. It is therefore imperative for the Government to put in place energy policies that avoid any adverse impact on the fragile environment.

#### H. Energy Conservation and Efficiency

The efficient use of energy is the most important step to improve the environment and contribute to sustainable economic health. Energy efficiency links closely with environmental quality and economic vitality. Greater energy efficiency can reduce energy costs to consumers, enhance environmental quality, maintain and enhance the standard of living, increase energy security and promote a strong economy. It is therefore imperative that energy policies are put in place to assist in the efficiency with which we use energy in the generation and use of electricity, in our residences and offices, in the manufacturing sector and also in the transportation sector.

#### I Capacity Building and Information

Energy issues are always taken for granted in the SI. This is evident from the lack of emphasis and allocation of resources towards energy sector development in the development plans of past governments. In certain respects, this lack of commitment from governments contributes to the lethargy of the general population on energy issues.

The critical role energy plays in enhancing socio-economic growths highlights the importance of ensuring that the general population has a fair understanding of the energy issues affecting their livelihoods. This will require the collection and dissemination of information at levels of society. The introduction of energy programmes in the schools' curriculum (from primary to tertiary and technical institutions) will go a long way in facilitating understanding of energy issues in the SI.

The links between energy use and production to issues such as global warming and sea level rise makes it more urgent to put in place mechanisms that help build the capacity in the SI to put in place mitigating measures that do not comprise the quality of services needed.

Developing the skills and knowledge in energy planning and energy management in the SI is critical. This is an area where the public and private sectors both play key roles. While the public sector provides the enabling environment and regulatory framework, the private sector provides the much needed investment capital to promote energy sector development.

#### J. Legislation and Regulations

There are existing legislations that drive energy sector development in the SI and some are seen to be inhibitive and require updating and or overhauling. Energy legislations appear to be focused on the two major areas of power sector and petroleum sector. These two traditional energy sub-sectors have been dominating the energy sector with the latter being the primary source of energy that fuels economic growth in the SI. The transport sector is considered an important energy sub-sector because it is a major user of imported petroleum fuels. Legislations for the transport sector are deficient in energy use considerations. For example, the absence of energy efficiency and conservation measures from existing legislations might have contributed to the proliferation of inefficient and unnecessarily large privately owned vehicles. There is a need to review the existing legislations and their mechanisms to be consistent with the energy policy framework.

#### K. Financing

The lack of funding resources allocated to energy sector development over the past years has been a major barrier to realising the potential for this dynamic tool of development in the SI. Relying solely on public expenditure will put a strain on domestic public finances. Moreover, the public sector alone tends not to have the capacity to deliver large-scale infrastructure projects and meet quality standards in terms of service provision. It is therefore crucial that other sources of finance are mobilised. Private funding is an effective way of meeting this objective. It is therefore crucial that the policy framework ensures that the right financial and legal framework is in place to facilitate private investments in the energy sector.

#### L. Gender

Energy and gender issues are frequently being discussed and highlighted at international fora. Gender issues are linked closely to poverty and it has been recognised that addressing gender issues is a prerequisite to achieving sustainable development. Promoting gender issues is in keeping with international conventions and agreements. It has the noble goal of improving the livelihood of the disadvantaged groups with special reference to women issues. In the Solomon Islands energy and gender issues are not really well understood at all level of decision-making. In many instances this is due to cultural bias against women and outdated laws that restrict the active participation of women in decision-making or having independent access to control of income and ownership of property. The policy framework will ensure that the provision of energy services in the SI takes into consideration energy issues that affect the livelihood of women and other disadvantaged groups.

## 3. STRATEGIC PLAN

### A. Energy Sector Planning, Coordination and Management

#### Goal: An effective and integrated approach to energy sector planning.

#### **Policy Statements:**

- 1. Ensure the Energy Division is provided with the appropriate level of trained staff, funding resources and equipment
- 2. Ensure effective consultation and coordination of energy programmes.

### B. Petroleum Sector

#### Goal: An efficient and well-managed petroleum sector.

#### **Policy Statements:**

1. Ensure a reliable supply of quality petroleum products at minimum landed cost to all people in the SI.

2. Ensure that petroleum storage and handling facilities conform to local and international safety and environmental standards.

3. Ensure that there is sufficient holding capacity to satisfy ongoing consumer demand under normal re-supply schedules.

- 4. Ensure that wastes related to petroleum products are disposed off in an environmentally sound manner.
- 5. Encourage fuel conservation and efficient energy end-use.
- 6. Encourage research in alternative sources of energy.

### C. Transport Sector

#### Goal: An efficient and well-managed transport sector.

#### **Policy Statement:**

- 1. Maximise fuel conservation and efficiency in the transport sector.
- 2. Minimise the detrimental impact of petroleum consumption in the transport sector on the land, atmospheric and marine environment.

3. Ensure close cooperation and coordination of organisations in the transport sector within the framework of the Energy/Petroleum Act and relevant Transport Management Strategy.

### D. Electricity Sector - Urban

#### Goal: A reliable, affordable and efficient power supply system.

#### **Policy Statements:**

- 1. Ensure a reliable and affordable power supply system in all urban centres.
- 2. Promote energy conservation and efficiency measures in the power sector.

### E. Electricity Sector – Rural

#### Goal: Provision of reliable, affordable and efficient electricity services.

#### **Policy Statements:**

1. Ensure the establishment of appropriate, reliable, affordable, and sustainable power supply systems in rural areas.

### F. Renewable Energy

#### Goal: Optimal utilisation of renewable energy resources.

#### Policy Statements:

1. Promote the use of renewable energy resources.

### G. Environment

#### Goal: Preservation of a clean and well-maintained environment.

#### **Policy Statements:**

1. Ensure minimal negative impacts of energy production, distribution and consumption on the environment.

### H. Energy Conservation and Efficiency

#### Goal: Optimal use of energy sources.

#### **Policy Statement:**

1. Ensure that energy conservation and efficiency measures are promoted in all aspects of energy production and use.

### I. Capacity Building and Information

#### Goal: A well-informed population on energy issues.

#### **Policy Statements:**

1. Promote capacity building, sharing and dissemination of information related to energy issues.

### J. Legislation and Regulations

#### Goal: A well-regulated energy sector.

#### **Policy Statement:**

1. Ensure that appropriate legislations and regulations are in place.

### K. Financing

#### Goal: A conducive financial environment for energy projects/programmes.

#### **Policy Statements:**

1. Ensure that appropriate financing mechanisms and equitable distribution of funds are in place.

### L. Gender Issues

#### Goal: An equitable energy programmes.

#### **Policy Statement:**

1. Promote a gender- balanced energy programme

### 4. WORK PLAN - ACTIVITIES

#### A. Energy Sector Planning, Coordination and Management

Policy 1:. Ensure the Energy Division is provided with the appropriate level of trained staff, funding resources and equipment.

Strategy 1.1 Ensure that the Division has a staff development plan with adequate funding allocation.

Activities	Lead organisation [Stakeholders]	Indicators [Means of verification]	Assumption/Risks [Mitigation]	Time Frame
1.1.1 Develop a staff training development plan and submit to Public Service Department (PSD).	Energy Division	A staff development is in place.	Funding resources available.	2007
1.1.2 Prepare and submit a training budget	Energy Division	Annual budget submitted.	Assumption- Funding available. Risk – government does not allocate right level of funding. Mitigation – seek external funding.	Ongoing

Strategy 1.2 Secure appropriate level of funding and equipment.

Activities	Lead	Indicators	Assumption/Risks	Time
	organisation	[Means of	[Mitigation]	Frame
	[Stakeholders]	verification]		
1.2.1 Prepare and submit annual budget allocation	Energy Division	Annual budget submitted to Ministry of Finance	Assumption- Funding available. Risk – government does not allocate right level of funding. Mitigation – seek external funding.	Ongoing

Strategy 1.3 Ensure an appropriate and effective institutional structure is in place.				
Activities	Lead organisation [Stakeholders]	Indicators [Means of verification]	Assumption/Risks [Mitigation]	Time Frame
1.3.1 Review current structure	Energy Division	Review carried out	Assumption- Recommendations of the review exercise approved. Risk – Recommendations not approved	2007
1.3.2 Recruit and train staff	Energy Division/PSD	New staff recruited	Assumption – There is interest to join the Energy Division.	Ongoing

Strategy 1.4 Ensure a capacity building mechanism is in place.				
Activities	Lead	Indicators	Assumption/Risks	Time
	organisation	[Means of	[Mitigation]	Frame
	[Stakeholders]	verification]		
1.4.1 Implement	Energy	A formal	Assumption – PSD	Ongoing
staff development	Division	capacity	formally endorsed	
plan and		building plan	capacity building plan	
recommendations		agreed with		
of the institutional		PSD.		
structural review.				

Strategy 1.5 Ensure effective implementation of commitment to international treaties and conventions.

Activities	Lead organisation [Stakeholders]	Indicators [Means of verification]	Assumption/Risks [Mitigation]	Time Frame
1.5.1 Identify and recruit additional staff	Energy Division/PSD	One additional staff recruited	PSD agreed to recruit additional staff	2007

Policy 2: Ensure effective consultation, participation and coordination of energy programmes.

Strategy 2.1 Promote public private partnerships.				
Activities	Lead organisation [Stakeholders]	Indicators [Means of verification]	Assumption/Risks [Mitigation]	Time Frame
2.1.1 Review existing legislations and regulations	ED, Economic Reform Unit, Foreign Investment Division	Review process undertaken	Recommendations of the review accepted	2007- 2008
2.1.2 Develop and implement a framework for public-private partnerships.	ED, Economic Reform Unit, Foreign Investment Division	An appropriate framework is in place	There is interest from private sector to invest in the energy sector.	2008

Strategy 2.2 Promote energy sector networking and sharing of information.

Activities	Lead	Indicators	Assumption/Risks	Time
	organisation	[Means of	[Mitigation]	Frame
	[Stakeholders]	verification]		
2.2.1 Establish a	ED	Network	Assumption -	2007
network of		established	Stakeholders	
relevant			willingness to	
stakeholders			participate	
2.2.2 Produce	ED	Energy	Assumption – funding	Ongoing
and distribute bi-		newsletter	available	
annual energy		produced and		
newsletter		distributed		
2.2.3 Develop an	ED, SIEA,	Questionnaire	Statistics Division	2007
energy	Statistics	developed and	willing to collaborate	
information	Division	energy data		
questionnaire in		collected		
collaboration				
with the				
Statistics				
Division.				

#### B. Petroleum Sector

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Policy 1: Ensure a reliable supply of quality petroleum products at minimum landed cost to all people in the SI.

Strategy 1.1 Ensure	e an appropriate r	egulatory framework	is in place.	
Activities	Lead	Indicators	Assumption/Risks	Time
	organisation [Stakeholders]	[Means of verification]	[Mitigation]	Frame
1.1.1 Review existing supply chain mechanism and regulations.	ED, Price Control Unit, Oil companies, Shipping Agents, Bio- fuel companies	Existing mechanism reviewed	There is a genuine need for a review.	2007
1.1.2 Implement recommendations as per 1.1.1	ED, Price Control Unit	Recommendations implemented	Recommendations approved by appropriate authority.	2007

Strategy 1. 2 Ensure Government ownership of storage facilities				
Activities	Lead	Indicators	Assumption/Risks	Time
	organisation	[Means of verification]	[Mitigation]	Frame
	[Stakeholders]			
1.2.1 Undertake	ED	Life cycle cost	There is the political	2007 -
a life cycle cost		and benefit	will to own storage	2008
and benefit		analysis carried	facilities	
analysis of		out.		
government				
taking ownership				
of the storage				
facilities.				

1.2.2 Produce and submit a Cabinet information paper on fuel storage ownership.	ED	Information paper submitted to Cabinet.	Cabinet considers concept favourable.	2007
1.2.3 Implement Cabinet decision	ED	Government builds own storage facilities.	Fuel security enhanced. Technical skills and knowledge enhanced.	2008

Strategy 1.3 Promote petroleum fuel substitution. Activities Lead Indicators Assumption/Risks Time organisation [Means of [Mitigation] Frame [Stakeholders] verification] 1.3.1 Demonstrate 2007 ED and Vehicles Technology compatibility - not the use of coconut private sector running on biobio-fuel and fuel much modification ethanol for Widespread use needed of bio-fuel for electricity generation and as electricity generation. a transportation fuel. 1.3.2 Conduct ED Public Funding available for 2007 awareness consultations producing and broadcasting programmes on carried out. potential/benefits awareness materials. Radio and TV for bio-fuels and programmes other alternative developed and broadcast. fuels. Posters and pamphlets produced and distributed.

Strategy 1.4 Improve handling and supply of petroleum fuels to all consumers.

Activities	Lead organisation [Stakeholders]	Indicators [Means of verification]	Assumption/Risks [Mitigation]	Time Frame
1.4.1 Develop, implement and monitor a regulatory framework for safe transportation, handling and storage of petroleum fuels	ED	An appropriate framework in place.	Both human and financial resources available.	2007- 2009

Policy 2:

Ensure that petroleum storage and handling facilities conform to local and international safety and environmental standards.

Strategy 2.1 Ensure regular monitoring of standards for petroleum storage and handling facilities.

Activities	Lead	Indicators	Assumption/Risks	Time
	organisation	[Means of	[Mitigation]	Frame
	[Stakeholders]	verification]		
2.1.1 Carry out	ED,	Reports	A qualified petroleum	Ongoing
a six monthly	Environment	available.	officer is in post.	
inspection of all	Department			
petroleum fuel				
storage				
facilities.				

Strategy 2.2 Ensure the Energy Division has the capacity to plan and manage the petroleum sector.

Activities	Lead organisation [Stakeholders]	Indicators [Means of verification]	Assumption/Risks [Mitigation]	Time Frame
2.2.1 Recruit a qualified petroleum officer	ED, PSD	An officer in post	Conditions attractive to attract qualified person.	2007

2.2.2 Provide targeted training programmes for staff	ED, Education, PSD	Training programme established	Funding and resource personnel available	2007
2.2.3 Establish a national petroleum database	ED, Oil Companies, Statistics Division, Customs Department, Retailers.	A petroleum database established	Willingness of key organisations to share data	2007

Strategy 2.3 Strengthen enforcement of safety standards				
Activities	Lead organisation [Stakeholders]	Indicators [Means of verification]	Assumption/Risks [Mitigation]	Time Frame
2.3.1 Establish a national safety standard and fuel quality.	ED, Environment Department, Department of Infrastructure and department of Commerce and Trade	A national standard in place and testing of fuel quality carried out on a regular basis	Technical assistance available to the SIG.	2008
2.3.2 Review existing penalty clause for breach of safety standards.	ED, AGC, Provincial Governments, Honiara City Council	Recommendations implemented	Shortage of manpower in the AGC Chamber may delay implementation of recommendations.	2008

Policy 3: Ensure that there is sufficient holding capacity to satisfy ongoing consumer demand under normal re-supply schedules.

Strategy 3.1 Maintain a minimum volume of petroleum fuels.

Activities	Lead organisation [Stakeholders]	Indicators [Means of verification]	Assumption/Risks [Mitigation]	Time Frame
3.1.1 Carry out an assessment of fuel consumption and existing storage capacity.	ED and Oil companies, SIEA	Minimum storage capacity and consumption known	Willingness of oil companies and other key organisations to collaborate	2007

Policy 4: Ensure that wastes related to petroleum products are disposed off in an

environmentally sound manner.

Strategy 4.1 Ensure a contingency oil spill plan is in place.				
Activities	Lead organisation	Indicators [Means of	Assumption/Risks [Mitigation]	Time Frame
	[Stakeholders]	verification]		
4.1.1 Develop a contingency oil spill plan	ED, Environment Department, NDMO, Oil companies	A contingency plan in place	Commitment and cohesiveness of all parties	2008

Strategy 4.2 Ensure there is regulation for the disposal of petroleum related waste.

Activities	Lead organisation [Stakeholders]	Indicators [Means of verification]	Assumption/Risks [Mitigation]	Time Frame
4.2.1 Collaborate with the Department of Environment to develop appropriate regulations	ED, Environment Department, AGC	Appropriate regulations in place	There is capacity to develop, implement and monitor regulations.	2008

Policy 5: Encourage fuel conservation and efficient energy end-use.

Strategy 5.1 Encourage the use of public transport.				
Activities	Lead	Indicators	Assumption/Risks	Time
	organisation [Stakeholders]	[Means of verification]	[Mitigation]	Frame
5.1.1 Monitor standard of public transport	Department of Infrastructure Development (DID), ED	Improved standard of public transport	Incentives and penalties sufficient to maintain standard	2007 (ongoing)
5.1.2 Conduct awareness programmes on benefits of improved public transport system	ÈD, DID	More people use public transport	More people use public transport	2007 (ongoing)

Policy 6: Encourage research in alternative sources of energy.

Strategy 6.1 Promote the use of non-fossil fuels.				
Activities	Lead organisation [Stakeholders]	Indicators [Means of verification]	Assumption/Risks [Mitigation]	Time Frame
6.1.1 Develop a subsidy scheme for the non-fossil fuel industry	Finance Department, Department of Agriculture, ED	A subsidy scheme in place	Political will	2007 (ongoing)
6.1.2 Create incentives for private investors	ED, Finance Department, Department of Commerce	Increased private sector participation in bio-fuel	Attractive incentives	2007 (ongoing)
6.1.3 Develop a national bio-fuel standard for transportation and electricity generation	ED, Department of Agriculture, AGC	A bio-fuel standard in place	More people using bio-fuel.	2007

### C. Transport Sector

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Policy 1: Maximise fuel conservation and efficiency in the transport sector.

Strategy 1.1 Regulate and encourage the importation of energy efficient vehicles.				
Activities	Lead organisation [Stakeholders]	Indicators [Means of verification]	Assumption/Risks [Mitigation]	Time Frame
1.1.1 Advise and raise awareness on the benefits of a minimum energy efficiency standard for vehicles.	ED, DID	A minimum energy standard regulation adopted for all government vehicle fleet	Assumption - Willingness of all government departments to collaborate.	2007 (ongoing)
1.1.2 Collaborate with DID for setting a national minimum energy efficiency standard for vehicles	ED, DID	A national minimum energy efficiency standard adopted	Assumption - Political will	2007

Strategy 1.2 Regulate a minimum seating capacity of public transport				
Activities	Lead	Indicators	Assumption/Risks	Time
	organisation	[Means of	[Mitigation]	Frame
	[Stakeholders]	verification]		
1.2.1 Collaborate with DID for a study of the public transportation system	ED, DID, HCC	Study carried out	Funding for study available	2007

1.2.2 Regulate a	DID, ED, HCC	Regulation in	Political will	2008
minimum seating		place		
capacity for public				
transport				

Strategy 1.3 Promote fuel conservation and efficiency in the rural areas.

Activities	Lead	Indicators	Assumption/Risks	Time
	organisation	[Means of	[Mitigation]	Frame
	[Stakeholders]	verification]		
1.3.1 Produce and disseminate information pamphlets and media campaign in Pidgin English on fuel efficiency measures	ËD	Pamphlets produced and disseminated. Radio and TV programmes broadcast	Funding availability	2007

Policy 2: Minimise the detrimental impact of petroleum consumption in the transport sector on land, atmospheric and marine environment.

Strategy 2.1 Regulate a smoke emission standard for all vehicles.				
Activities	Lead	Indicators	Assumption/Risks	Time
	organisation	[Means of	[Mitigation]	Frame
	[Stakeholders]	verification]		
2.1.1 Collaborate	ED, DID,	Guideline in	Willingness to	2008 -
with DID and the	Department of	place	collaborate	2009
Department of	Environment			
Environment on				
the development				
of a guideline for				
smoke emission				

Strategy 2.2 Promote awareness on detrimental impacts of fossil fuels consumption in the transport sector.				
Activities	Lead organisation [Stakeholders]	Indicators [Means of verification]	Assumption/Risks [Mitigation]	Time Frame

2.2.1 Develop and carry out awareness campaigns on impacts of fossil fuel useED, Departm Environn		Funding availability	2008
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Policy 3: Ensure close cooperation and coordination of organisations in the transport sector within the framework of the Energy/Petroleum Act and relevant Transport Management Strategy.

Strategy 3.1 Encourage the establishment of an advisory committee for energy, transport and petroleum issues.				
Activities	Lead	Indicators	Assumption/Risks	Time
	organisation	[Means of	[Mitigation]	Frame
	[Stakeholders]	verification]		
3.1.1 Establish	ED	National Energy	Stakeholder	2007
an National		Advisory	participation	
Energy Advisory		Committee		
Committee		established		
3.1.2 Regulate	ED, AGC	Regulation in	Stakeholder	2007
the sharing of		place	participation	
information				
amongst				
stakeholders				

### D. Electricity Sector - Urban

Policy 1: Ensure a reliable and affordable power supply system in all urban centres.

Strategy 1.1 Promote the opening up of the electricity sector to new players.				
Activities	Lead organisation [Stakeholders]	Indicators [Means of verification]	Assumption/Risks [Mitigation]	Time Frame
1.1.1 Amend the current Electricity Act	ED, SIEA, AGC	Electricity Act amended	Lack of staff in key organisations may delay work	2007

1.1.2 Develop a	ED, AGC,	IPP agreement	There is interest from	Ongoing
framework for	SIEA	in place	private investors to	
Independent			participate	
Power Producers				
1.1.3 Remove	ED, AGC,	Private investor	There is interest from	2008
legislative barriers	SIEA	agreements in	private investors to	
to the		place	participate	
participation of				
the private sector.				
1.1.4 Provide	ED, Ministry of	Incentives in	Political will	2008
incentives to	Finance	place	There is surplus	2009
private sector		A PPA reached	energy available at	
participation in		between	Guadalcanal Plains	
urban power		Guadalcanal	Palm Oil Ltd.	
supply.		Plains Palm Oil		
		Ltd mill and		
		SIEA		

Strategy 1.2 Promote the use of renewable energy for power generation.

	1	1	1	1
Activities	Lead organisation	Indicators [Means of	Assumption/Risks [Mitigation]	Time Frame
	[Stakeholders]	verification]		
1.2.1 Development of Hydro-power for Honiara-Gold Ridge and other provincial centres	ED, SIEA	Funding made available	Land owners willingness to provide land	Honiara – 2008 Other sites 2008- 2009
1.2.2 Investigate potential for wind and biomass	ED, SIEA, Aid donors	Potential wind, biomass and geothermal sites identified	Funding availability	Wind - 2007 Biomass – 2007
1.2.3 Conversion to bio-fuel (coconut oil) for power generation.	ED, World Bank	Some grid schemes run on bio-fuel	Enough coconut oil available in the country for use as diesel substitute	2008

Strategy 1.3 Ensure that SIEA have the technical and managerial expertise necessary for running a power supply company.

Activities	Lead organisation [Stakeholders]	Indicators [Means of verification]	Assumption/Risks [Mitigation]	Time Frame
1.3.1 Establish a management contract agreement for SIEA	ED, SIEA, AGC, ERU	Management contract in place	Risk – management contract does not deliver to expectations	2007
1.3.2 Facilitates staff development of SIEA	SIEA	A training development in place	Funding availability	2007

Strategy 1.4 Encourage a tariff structure that takes into considerations both the consumers and utility's concerns.

Activities	Lead organisation [Stakeholders]	Indicators [Means of verification]	Assumption/Risks [Mitigation]	Time Frame
1.4.1 Carry out a national electricity tariff study	ED, SIEA	Tariff study carried out	Funding available	2007
1.4.2 Implement recommendations of tariff study	SIEA	New tariff structure in place	Key players agreed on recommendations	2008

Policy 2: Promote energy conservation and efficiency measures in the power sector.

Strategy 2.1 Encourage supply and demand side management.				
Activities	Lead organisation [Stakeholders]	Indicators [Means of verification]	Assumption/Risks [Mitigation]	Time Frame

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2.1.1 Carry out awareness campaign on energy efficiency and conservation measures	ED, SIEA, Private sector	Radio and TV programmes broadcast Newspaper articles pamphlets produced More people adopt energy efficiency measures	Funding available for campaigns	2007
2.1.2 Regulate the importation of energy efficient equipment and appliances	ED	Regulation in place	Political will	2008
2.1.3 Enforce the licensing of personnel working in the power sector	National Trade Testing Centre, SIEA, ED	Only licensed personnel involved in power installation work	There is enough personnel to enforce the regulations	2007 - 2008

### E. Electricity Sector - Rural

Policy1: Ensure the establishment of appropriate, reliable, affordable, and sustainable power supply systems in rural areas.

Strategy 1.1 Promote an appropriate regulatory and institutional set up for rural electrification.

Activities	Lead organisation [Stakeholders]	Indicators [Means of verification]	Assumption/Risks [Mitigation]	Time Frame
1.1.1 Set up a Rural Electrification Unit	ED	Rural Electrification Unit set up	Political will	2007
1.1.2 Establish a revolving fund for rural electrification	ED, Central Bank of SI (CBSI)	Revolving fund established	Political will	2007

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Activities	Lead organisation [Stakeholders]	Indicators [Means of verification]	Assumption/Risks [Mitigation]	Time Frame
1.2.1 Remove barriers for private sector participation	ED, AGC, SIEA	More private investors participating in rural electrification	Attractive incentives to entice private investors Land issues resolved	2007
1.2.2 Develop guidelines for private sector participation	ED, AGC	Guideline in place	Attractive incentives to entice private investors	2008

Strategy 1.3 Encourage the use of renewable energy for rural electrification.					
Activities	Lead organisation [Stakeholders]	Indicators [Means of verification]	Assumption/Risks [Mitigation]	Time Frame	
1.3.1 Install 50 solar home systems per year	ED, Private sector	50 households electrified with solar PV	Funding available Political will	2007 (ongoing)	
1.3.2 Install two hydro scheme per annum	ED, Private sector	2 hydro small schemes installed	Funding available Land ownership issue resolve Political	2007 (Ongoing)	
1.3.3 Install one biogas plant	ED	A biogas plant installed	Funding available Technical assistance available	2007	
1.3.4 Install nine bio-diesel power generation mini-grid systems in rural villages	ED, Private sector	Nine villages electrified through Bio- diesel power generation	Funding availability Resources availability	2007 - 2009	

Strategy 1.4 Promote establishment of industries in rural areas to support electrification programmes.

Activities	Lead	Indicators	Assumption/Risks	Time
	organisation	[Means of	[Mitigation]	Frame
	[Stakeholders]	verification]		
1.4.1 Provide	ED,	A priority list for	Funding availability	2007
energy	Department of	provision of	Political expediency	(ongoing0
services to	Agriculture,	energy services		
existing	Fishery,	developed.		
industries,	Health and			
schools, health	Education			
centers,	Departments			
agriculture and	And private			
fishery centers.	industries			

Strategy 1.5 Encourage public private partnership in the provision of power supply in rural areas.

Activities	Lead	Indicators	Assumption/Risks	Time
	organisation	[Means of	[Mitigation]	Frame
	[Stakeholders]	verification]		
1.5.1 Develop a	ED	A framework in	Attractive incentive for	2008
framework for		place	public and private	
public and			sector collaboration	
private				
partnership				

#### F. Renewable Energy

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Policy 1: Promote the use of renewable energy resources.

Strategy 1.1 Increase public awareness on the benefits of renewable energy.				
Activities	Lead organisation	Indicators [Means of	Assumption/Risks [Mitigation]	Time Frame
	[Stakeholders]	verification]		

1.1.1 Develop information materials for public awareness programmes	ED	TV and radio materials produced Newspaper articles and pamphlets produced	Funding availability	2007 (ongoing)
1.1.2 Collaborate with the Ministry of Education for inclusion of renewable energy in the schools' curriculum	ED, Ministry of Education	Both primary and secondary curriculum include renewable energy	Funding availability Curriculum resource personnel available Current curriculum does not include renewable energy	

Strategy 1.2 Promote incentives for the use of renewable energy technologies.

Activities	Lead organisation [Stakeholders]	Indicators [Means of verification]	Assumption/Risks [Mitigation]	Time Frame
1.2.1 Provide tax incentive for the use of renewable energy technologies	Ministry of Finance	Duty exemption on renewable energy technologies	Political will	2007
1.2.2 Provide micro financing facility to potential users	ED, Commercial Banks	Micro financing mechanism in place	Attractive conditions to potential consumers	2007

Strategy 1.3 Ensure there is in-country capacity to implement renewable energy projects.

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Activities	Lead	Indicators	Assumption/Risks	Time
	organisation	[Means of	[Mitigation]	Frame
	[Stakeholders]	verification]		

1.3.1 Develop technical training programmes in collaboration with the Ministry of Education for renewable energy technicians	ED, Ministry of Education	Technical training programmes adopted in technical institutions	Human and financial resources available	2008
1.3.2 Organise short term technical training for energy officers and the private sector	ED, Training institutions	Short term training identified and attended	Funding available	ongoing

Strategy 1.4 Ensure the renewable energy resources are used in an economically and environmentally sustainable manner.

Activities	Lead organisation [Stakeholders]	Indicators [Means of verification]	Assumption/Risks [Mitigation]	Time Frame
1.4.1 Carryout EIA on major renewable energy projects	ED, Department of Environment	EIA carried out	There is little detrimental environmental impacts	Project specific

Strategy 1.5 Promote and or support research and development of appropriate renewable energy technologies.

Activities	Lead	Indicators	Assumption/Risks	Time
	organisation	[Means of	[Mitigation]	Frame
	[Stakeholders]	verification]		
1.5.1 Establish	ED	Laboratory	Funding available	2009
laboratory for		established		
research and				
development				
1.5.2 Provide	ED	Technical	Funding available	Ongoing
logistical and		advice and		
funding support		funding support		
to innovative		provided		
renewable				
energy initiatives				

Strategy 1.6 Encourage partnership in development of renewable energy with private sector

Activities	Lead	Indicators	Assumption/Risks	Time
	organisation	[Means of	[Mitigation]	Frame
	[Stakeholders]	verification]		
1.7.1 Develop a	ED	A framework in	There is interest from	2008
framework for		place	the private sector	
public and				
private				
partnership				

#### G. Environment

Policy 1: Ensure minimal negative impacts of energy production, distribution and consumption on the environment.

Strategy 1.1 Ensu sustainable mann	•••	sources are consu	med in an environmenta	lly
Activities	Lead organisation [Stakeholders]	Indicators [Means of verification]	Assumption/Risks [Mitigation]	Time Frame
1.1.1 Carryout EIA on all energy projects	ED, Environment Department	EIA carried out	Human and funding resource available	Ongoing
1.1.2 Enforce safety measures in the planning and construction of energy projects	ED, Labour Department	Guideline in place	Human and funding resource available	Ongoing
1.1.3 Develop a recycling strategy for batteries and other reusable energy items	ED and Environment Department	Recycling strategy in place	Human and funding resource available	2009

Strategy 1.2 Ensure and maintain co-operation and coordination of organisations in the energy sector within the framework of the Environmental Act and the relevant Environmental Management Strategy.

Activities	Lead organisation [Stakeholders]	Indicators [Means of verification]	Assumption/Risks [Mitigation]	Time Frame
1.2.1 Establish a mechanism for cooperation amongst key organisations	ED	Mechanism for cooperation in place	Key stakeholders cooperate	2008

#### H. Energy Conservation and Efficiency

Policy 1: Ensure that energy conservation and efficiency measures are promoted in all aspects of energy production and use.

Strategy 1.1 Prom	ote the use of app	bliance labelling and	d energy efficiency rating	IS.
Activities	Lead organisation [Stakeholders]	Indicators [Means of verification]	Assumption/Risks [Mitigation]	Time Frame
1.1.1 Develop a minimum energy performance standard for refrigerators and freezers	ED, Importers, Retailers and Chamber of Commerce.	Minimum energy performance standard in place	Retailers cooperation obtained	2008

Strategy 1.2 Promote appropriate energy efficient equipment and technology				
Activities	Lead organisation [Stakeholders]	Indicators [Means of verification]	Assumption/Risks [Mitigation]	Time Frame

efficiency andAffairs andsafety standardsPrice Controlfor energyDivision,technologies,Labourequipment andDivision	for energy technologies,	Division, Labour	National efficiency standard implemented.	Resources available to monitor standard	2008 (ongoing)
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### I Capacity Building and Information

Policy 1: Promote capacity building, sharing and dissemination of information related to energy issues.

Strategy 1.1 Ensu	re energy issues	are incorporated in	to the school curriculum.	
Activities	Lead	Indicators	Assumption/Risks	Time
	organisation	[Means of	[Mitigation]	Frame
	[Stakeholders]	verification]		
1.1.1	ED, Ministry of	Primary,	Human and funding	2008
Collaborate with	Education,	secondary and	resources available	
the Ministry of	SIEA	other training		
Education for the		institutions'		
inclusion of		curriculum		
energy in the		include energy		
schools'		issues		
curriculum				

Strategy 1.2 Promote trainings in energy related fields.				
Activities	Lead organisation	Indicators [Means of	Assumption/Risks [Mitigation]	Time Frame
	[Stakeholders]	verification]		
1.2.1 Identify training needs in the energy	ED	Training needs assessment carried out	Training available locally	2007 (ongoing)
sector				

1.2.1 Collaborate with Public Service Division and National Training Unit on the development of an energy related training programmes	ED, PSD, NTU	Energy Training programme in place	Funding available	2007
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Strategy 1.3 Promote community training in planning, and management of energy projects.

Activities	Lead	Indicators	Assumption/Risks	Time
	organisation	[Means of	[Mitigation]	Frame
	[Stakeholders]	verification]		
1.3.1 Conduct community training programmes in planning and management of energy projects	ED, NGOs	Training manual developed	Community based projects implemented	Ongoing

Strategy 1.4 Ensure wider consultations on policy issues, legislation and regulations.

Activities	Lead organisation [Stakeholders]	Indicators [Means of verification]	Assumption/Risks [Mitigation]	Time Frame
1.4.1 Conduct public consultations	ÈD	Public consultations carries out	Public participate in consultations	Ongoing

### J. Legislation and Regulations

Policy 1: Ensure that appropriate legislations and regulations are in place.

Strategy 1.1 Promote the removal of legislative barriers for the implementation of the energy programmes.

Activities	Lead organisation [Stakeholders]	Indicators [Means of verification]	Assumption/Risks [Mitigation]	Time Frame
1.1.1 Review Electricity Act	ED, AGC	Electricity Act review completed	Recommendations accepted	2007
1.1.2 Review of Petroleum Act	ED, AGC	Petroleum Act review completed	Recommendations accepted	2008
1.1.3 Develop an Energy Act	ED, AGC	Energy Act in Place	Political will	2010

### K. Financing

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Policy 1: Ensure that appropriate financing mechanisms and equitable distribution of funds are in place.

Strategy 1.1 Ensu	ure appropriate m	echanisms are in p	place to access funding.	
Activities	Lead organisation [Stakeholders]	Indicators [Means of verification]	Assumption/Risks [Mitigation]	Time Frame
1.1.1 Establish a levy of 2 cents per litre on petroleum fuels	ED, Ministry of Finance	2 cents levy implemented	Political will	2007
1.1.2 Establish a micro- financing scheme for energy projects	ED, Commercial Banks	Micro- financing scheme in place	Commercial banks willing to participate	2007??
1.1.3 Develop funding proposals to access funding available under bilateral and international conventions and treaties	ED	Proposal developed and submitted	Funding secured	2007 (ongoing)

Strategy 1.2 Ensure equitable and fair distribution of fund to both national and provincial governments.

Activities	Lead organisation [Stakeholders]	Indicators [Means of verification]	Assumption/Risks [Mitigation]	Time Frame
1.2.1 Develop a framework for equitable funding energy projects	ED	Framework in place	Political will	2008

#### L. Gender

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Policy 1: Promote a gender balanced energy programme.

Strategy 1.1 Ensure that the different energy needs are equally addressed and promoted at all levels of society.				
Activities	Lead	Indicators	Assumption/Risks	Time
	organisation	[Means of	[Mitigation]	Frame
	[Stakeholders]	verification]		
1.1.1 Conduct	ED	Needs	Gender needs are	Ongoing
gender needs		assessment	incorporated into the	
assessment for		carried out	planning of energy	
all energy			projects	
projects				

Strategy 1.2 Raise awareness on the advantages and benefits of energy technologies on households.

Activities	Lead organisation [Stakeholders]	Indicators [Means of verification]	Assumption/Risks [Mitigation]	Time Frame
1.2.1 Collaborate with Ministry of Women, Youth & Sports in promoting improved cooking stoves	ED, Ministry of Women.	Many households use improved cooking stoves	General acceptance of improved cooking stoves	Ongoing

Strategy 1.3 Promote gender balanced training in energy related fields				
Activities	Lead	Indicators	Assumption/Risks	Time
	organisation [Stakeholders]	[Means of verification]	[Mitigation]	Frame
1.3.1 Conduct training programmes for women on energy efficiency measures	ED, Ministry of Women	Three training workshops carried out	Funding available	2007 (ongoing)
1.3.2 Recruit at least one female staff in the ED	ED, PSD	One female energy officer recruited	Females interested in working in the Energy Division	2007