PACIFIC ISLANDS ENERGY POLICY and PLAN

October 2002

This document represents a regional consensus, affirmed at the 2002 Regional Energy Meeting in Cook Islands via the Rarotonga Declaration.

The Pacific Islands Energy Policy and Plan has been coordinated by the Committee of Regional Organisations of the Pacific (CROP) - Energy Working Group, comprising Pacific Islands Forum Secretariat (PIFS), Pacific Power Association (PPA), Secretariat of the Pacific Community (SPC), South Pacific Applied Geoscience Commission (SOPAC), South Pacific Regional Environmental Programme (SPREP) University of the South Pacific (USP) and the United Nations Development Program (UNDP).

These organisations represent the Pacific island countries and territories (PICTs) of: American Samoa, Cook Islands, Federated States of Micronesia, Fiji, French Polynesia, Guam, Kiribati, Marshall Islands, Nauru, New Caledonia, Niue, Northern Marianas, Palau, Papua New Guinea, Pitcairn Islands, Samoa, Solomon Islands, Tokelau, Tonga, Tuvalu, Vanuatu, and Wallis and Futuna.

VISION

Available, reliable, affordable, and environmentally sound energy for sustainable development for all Pacific islanders.

INTRODUCTION

Energy has a vital role in achieving sustainable development in the Pacific region. It is a fundamental input to most economic and social activity and a prerequisite for development in other sectors such as education, health, and communications. Sustainable development is a process of change in which the exploitation of resources, the directions of investment, the orientation of technological change, and institutional change are all in harmony and enhance both current and future potential to meet human needs and aspirations. It is recognised that women are important stakeholders in the energy sector and their participation is vital to achieve sustainable development. Responding to energy issues within the context of sustainable development involves many complex and interdependent factors addressed by this policy statement.

Pacific island countries and territories face a unique and challenging situation with respect to energy for sustainable development:

- Demographics vary widely between countries, but often feature small, isolated population centres.
- Markets are very thin, difficult to serve, and without significant economies of scale.
- 70% of the regional population is without access to electricity, but access varies widely, from 10% to 100% at the national level.
- Pacific Island countries comprise a wide range of ecosystems, predominantly influenced by marine systems, that make infrastructure development difficult and environmental impacts significant.
- Most Pacific island countries do not have indigenous petroleum resources and only a minority have hydropower potential.

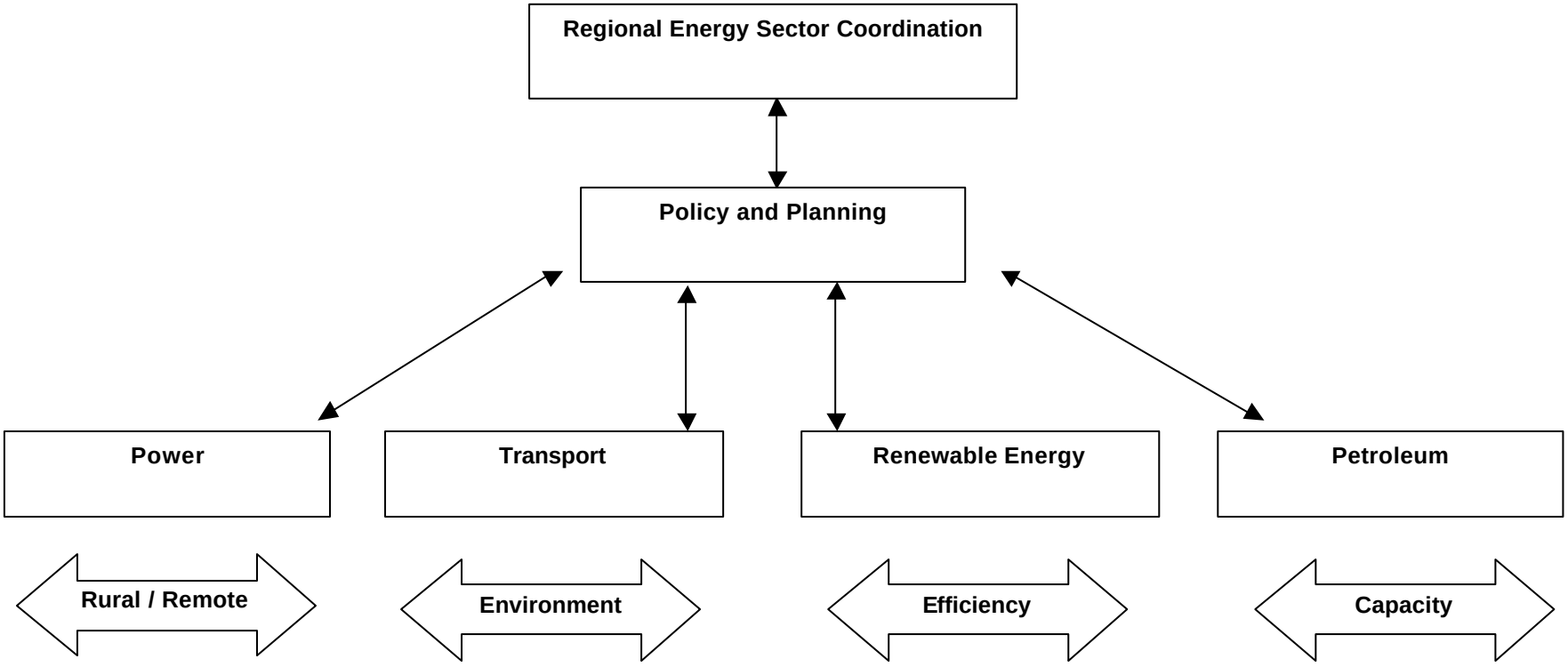
Pacific island countries and territories have special concerns arising from their situation that have motivated the development of this policy:

- Environmental vulnerability through climate change and sea level rise is very high, particularly for small islands and low-lying atolls.
- Environmental damage, habitat loss and pollution resulting from development and use of conventional energy sources have significant effects on fragile island ecosystems
- Energy supply security is vulnerable, given the limited storage for bulk petroleum fuels, which are sourced over a long supply chain at relatively high prices.
- The development of renewable energy resources has been limited by the availability of appropriate technology, poor institutional mechanisms, and the challenges of developing systems for small remote markets at reasonable cost.
- There is limited scope for market reforms considering the variation in size and density of markets; therefore, appropriate alternatives vary between countries.

- The region has limited human and institutional capacity to respond to these challenges.
- While women are significant energy users, they are poorly represented in energy policy, planning, and development.

In response to these challenges and their concerns, the Pacific Energy Policy and Plan (PEPP) has been developed as a means of co-ordinating the energy programmes in the regional organisations and development partners, in areas where international co-operation is required. It is also intended to offer guidelines for adaptation to the circumstances of Pacific island countries and territories in areas for domestic implementation.

For planning and policy development purposes, the energy sector is organised and analysed according to the following six themes, shown graphically in the figure below, which have become the standard classifications for integrated energy planning. Four cross-cutting issues, which apply equally to all other themes, are also identified at the bottom of the figure. These ten themes correspond to the sections of the Pacific Energy Policy and Plan.



The PEPP is structured around these ten sections with the following goals in each area:

- Regional Energy Sector Co-ordination: A co-operative approach to sector co-ordination that maximises the impact of regional resources and capabilities
- Policy and Planning: Open and consultative cross-sectoral policy development and integrated planning to achieve sustainable supply and use of energy.
- Power: Reliable, safe and affordable access to efficient power for all Pacific islanders in both rural and urban parts of the region
- Transportation: Environmentally clean, energy efficient, and cost effective transportation within the region
- Renewable Energy: An increased share of renewable energy in the region's energy supply
- Petroleum: Safe, reliable, and affordable supplies of petroleum products to all areas of the Pacific including rural and remote islands
- Rural and Remote Islands: Reliable, affordable, and sustainable energy supplies for the social and economic development of rural and remote islands
- Environment: Environmentally sustainable development of energy sources and use of energy within the region
- Efficiency and Conservation: Optimised energy consumption in all sectors of the regional economy and society.
- Human and Institutional Capacity: Adequate human and institutional capacity to plan, manage, and develop the Pacific energy sector

To achieve these goals, policies are supported by a detailed strategic plan for implementation, organised as follows:

- Policies are stated for each goal, intended to set the rules by which specific strategies and actions will be designed to achieve the goals. They are long-term, but may be reviewed and changed every 3-5 years if necessary.
- The strategic plan consists of strategies for each policy, intended as the general means by which the goals will be reached. They are medium-term, but may be reviewed and changed on a 1-3 year cycle as required.
- Activities under each strategy in the plan are the specific means by which strategies are implemented. They should be monitored continually and modified annually if needed.
- Each activity has an identified Lead Organisation which is responsible for initiation and coordination, and supporting regional stakeholders where appropriate. It is recognised that national governments are stakeholders in all activities.
- Each activity also includes suggested indicators of success, assumptions regarding the environment for implementation, and a time frame for completion

It is anticipated that the policy and strategic plan should undergo regular review. The CROP Energy Working Group is the appropriate body to organise a suitable review process through each organisation's governing council and member country representatives.

1. REGIONAL ENERGY SECTOR COORDINATION

Regional co-operation in energy policy and planning can help to overcome the disadvantages faced by the region, particularly in relation to its small size, dispersed communities, fragmented markets, environmental vulnerability, and limited institutional and human capacity. A regional co-operative approach to co-ordination will allow countries to share expertise, take advantage of economies of scale, harmonise policies and regulations, and mobilise increased official development assistance from international sources. The goal for regional energy sector co-ordination is:

A co-operative approach to sector co-ordination that maximises the impact of regional resources and capabilities

Policies

1.1 Co-ordinate regional energy sector planning and programmes of regional organisations, associations, the private sector, non-governmental organisations, and development partners through the Council of Regional Organisations of the Pacific (CROP) Energy Working Group.

1.2 Mobilise increased official development assistance and financing from international and multilateral development partners and the private sector, for the implementation of national and regional energy strategies.

2. POLICY AND PLANNING

The prominence accorded to energy issues in a global economy presents great challenges to policy and planning in PICTs, which must address integrated cross-sectoral partnership and issues, co-ordinated implementation, appropriate institutional arrangements, adequate financial mechanisms, and the roles of diverse public and private stakeholders. In addition, PICTs are faced with scarce energy resources and a heavy reliance on imported fossil fuels to meet their energy needs. Hence the need for a strategic and sustainable approach to the development and implementation of policies, and the ability to plan to meet future energy sector requirements. The goal for policy and planning is:

Open and consultative cross-sectoral policy development and integrated planning to achieve sustainable supply and use of energy.

Policy

2.1 Ensure energy sector policy and planning addresses the availability and efficient use of sufficient, affordable and appropriate sources of energy, taking into account a balance of social, cultural, technological, institutional, environmental, economic, and global market issues

2.2 Promote sustainable energy options for electricity generation, transportation, water supply, health care, education, telecommunication, food supply, and income generation

2.3 Promote the development of appropriate regulatory guidelines to meet the needs of consumers resulting from sector reforms.

2.4 Assess and promote indigenous resource potential and technical capacity for all aspects of sector planning and development.

2.5 Promote policy mechanisms for efficient use of energy in all sectors of the economy

3. POWER SECTOR

Reliable and affordable electric power is essential for economic development and social progress. Key issues related to power supply include insufficient human resources, inefficient performance of some utilities, inefficient consumption of electric power, and inadequate regulatory and legislative frameworks to support private sector participation and investment. The goal for the power sector is:

Reliable, safe and affordable access to efficient power for all Pacific islanders in both rural and urban parts of the region

Policies

3.1 Improve the efficiency of power production, transmission and distribution to optimise costs and fuel consumption.

3.2 Develop corporatisation and commercialisation mechanisms for power utilities to facilitate improvements in power production, transmission and distribution.

3.3 Expand where appropriate private sector participation, investment, ownership, and management arrangements for electricity generation, transmission and distribution.

3.4 Establish an enabling and competitive environment for the introduction of independent power providers where these may provide efficient, reliable, and affordable service to consumers.

3.5 Promote appropriate international best-practice regulations and standards for the safe and reliable supply, generation, transmission and distribution of power.

3.6 Support the introduction of new commercially proven technologies and generating systems that are environmentally, economically, financially and socially viable.

4. TRANSPORTATION

Transportation is an essential service that enables economic and social development. It accounts for about 50% of the region's use of petroleum products and polluting emissions, with national shares varying from 34% to 70%. The goal for transportation is:

Environmentally clean, energy efficient, and cost effective transportation within the region

Policies

4.1 Evaluate and encourage the application of emerging environmentally clean technologies and alternative fuels for transport, and promote markets to make them more affordable and reliably available

4.2 Promote emission control regulations and effective enforcement procedures.

4.3 Promote vehicle efficiency standards and encourage the import of more efficient vehicles.

4.4 Promote policy mechanisms that create a framework for greater use of appropriate and energy efficient modes of transportation including public transport.

5. RENEWABLE ENERGY

Despite past efforts to promote widespread use of renewable energy, progress in general has been rather slow. This is due to a number of policy, technical, financial, management, institutional and awareness barriers. Renewable energy sources in the form of hydropower, wind, solar, biofuel, geothermal and ocean thermal hold a lot of potential to be used to promote sustainable social and economic development, particularly in rural and remote areas, while reducing the dependence on fossil fuel for power generation and in transportation. Key issues in renewable energy include: a lack of technical expertise and weak institutional structures to plan, manage and maintain renewable energy programmes; the absence of clear policies and plans to guide renewable energy development; a lack of successful demonstration projects; a lack of understanding of the renewable energy resources potential; a lack of confidence in the technology on the part of policy makers and the general public; a lack of local financial commitment and support to renewable energy; and continuing reliance on aid-funded projects. The goal for renewable energy is:

An increased share of renewable energy in the region's energy supply

Policies

5.1 Promote the increased use of proven renewable energy technologies based on a programmatic approach.

5.2 Promote the effective management of both grid-connected and stand-alone renewable-based power systems.

5.3 Promote a level playing field approach for the application of renewable and conventional energy sources and technologies.

5.4 Promote partnerships between the private and public sectors and mobilise external financing to develop renewable energy initiatives.

6. PETROLEUM

Petroleum fuels dominate the energy supply system in the Pacific, yet the region has very limited proven indigenous crude oil sources and these are predominantly exported. Competition in fuel supply is limited by monopoly terminal ownership. Fuel distribution arrangements within countries vary widely, with many governments choosing price regulation to ensure that fuel prices remain fair and equitable. The supply of fuel to remote locations and outer islands is not always reliable, is not always carried out in a safe manner and can result in very expensive fuel to a sector of the community least able to afford it. The environmental impacts of waste oil have the potential to significantly pollute the limited soil and ground water and near shore fisheries of Pacific Islands. The need for policy in this area arises from the need for energy security, the concentrated nature of the petroleum fuel supply industry, and the threat of climate change posed by the expanding use of petroleum fuels. The goal for petroleum is:

Safe, reliable, and affordable supplies of petroleum products to all areas of the Pacific including rural and remote islands

Policies

6.1 Encourage increased competitive supply options by promoting independent ownership of fuel terminals

6.2 Encourage suppliers to maintain the quality of petroleum products in line with relevant standards and to introduce cleaner and better quality petroleum products as they become available

6.3 Assess alternative fuels and promote fuel substitution to reduce petroleum product imports

6.4 Co-operate regionally to collect and disseminate information on fuel demand, regional fuel prices, and related issues.

6.5 Promote the collection, transportation, and environmentally responsible re-use, disposal, or removal of waste oil and other petroleum by-products to minimise adverse impacts on soil, ground water, and near shore fisheries

6.6 Promote equitable availability of petroleum products in rural and remote islands.

6.7 Encourage exploration for, and development of, indigenous sources of petroleum products.

7. RURAL AND REMOTE ISLANDS

The majority of people within the region without access to electricity live in rural areas and on remote islands. These people often rely on biomass as their primary energy source. Petroleum products are also often not reliably and safely available at affordable prices in rural and remote island communities, thus reducing their potential for use in electricity generation and transportation. The goal for rural and remote islands is:

Reliable, affordable, and sustainable energy supplies for the social and economic development of rural and remote islands

Policies

7.1 Assess the availability, and promote the development, of indigenous energy resources and technical capacity as a substitute for imported fuels

7.2 Promote opportunities for rural energy service companies and local manufacturers to supply equipment and human resources for project design, implementation, management and maintenance

7.3 Develop sustainable energy options appropriate to remote areas, through an integrated approach, for electricity generation, transportation, water supply, health care, education, telecommunication, food supply and income generation.

7.4 Establish opportunities for better access to renewable energy technologies (such as stand alone solar systems and hybrid systems) in rural areas through the removal of barriers and constraints to sustainable rural energy sector development

8. ENVIRONMENT

Energy development and use can adversely affect the earth, air, and water both regionally and globally. There are increasingly detrimental economic and environment impacts of energy use, particularly from fossil fuels. By incorporating environmental considerations into energy sector planning, the negative environmental impacts can be lessened through fuel substitution, replacement by renewable energy, greater efficiency, and better management, among other approaches. The goal for the environment is:

Environmentally sustainable development of energy sources and use of energy within the region

Policies

8.1 Promote strategic environmental assessments and full life-cycle environmental impact assessment of proposed energy supply and infrastructure policies and projects, including assessment of impacts on bio-diversity, greenhouse gas emissions, and local air quality

8.2 Incorporate mechanisms in conventional and renewable energy supply and infrastructure plans for effective management and ultimate disposal of wastes during their development, operation, and decommissioning.

8.3 Integrate environmental regulations into all related energy-related plans, including transportation, power supply, and building codes.

8.4 Continue to support international action on reduction of greenhouse gases.

8.5 Oppose the use of nuclear energy in the region in recognition that it is inappropriate and unacceptable.

9. EFFICIENCY AND CONSERVATION

In general there is a wide sectoral variation in the consumption of energy throughout the Pacific where by weighted average the greatest proportion of energy is consumed in transport sector followed by the production, transmission and distribution of electricity, and then, to a lesser degree, government, commerce, industry and agriculture. It has been well demonstrated and recognised that making energy consuming systems more efficient will lead to reduction in: costs; fossil fuel imports and greenhouse gases. Hence the development and implementation of policy initiatives in the energy efficiency and conservation sector provides a prime opportunity to save energy and improve the long-term sustainability of the energy sector. The goal for energy efficiency and conservation is:

Optimised energy consumption in all sectors of the regional economy and society.

Policies

9.1 Improve the efficiency of energy production, transmission, and distribution through supply side management.

9.2 Introduce demand side management programmes for enhancing energy efficiency and conservation so as to reduce the energy consumption in government facilities, residential and commercial buildings, industry, agriculture and forestry.

9.3 Introduce minimum energy performance standards for electrical equipment, adoption of building energy codes.

9.4 Promote appropriate packages of incentives (including taxes, duties and tariffs) to encourage efficient energy use.

9.5 Encourage co-operation in energy efficiency and conservation programmes between the private sector, consumers and governments, by increasing public awareness and improving access to information.

10. HUMAN AND INSTITUTIONAL CAPACITY

National capacity to plan and manage the energy sector must be developed to improve the region's self-reliance. Adequately trained and educated engineers, technicians, and planners are necessary to provide the region with guidance, policy support, and planning to meet long-term economic and social objectives in the energy sector. The goal for human and institutional capacity is:

Adequate human and institutional capacity to plan, manage, and develop the Pacific energy sector

Policies

10.1 Provide appropriate energy-related training opportunities regionally at all educational and professional levels.

10.2 Promote an interdisciplinary approach to energy training and capacity building programmes that merges the physical sciences (physics, engineering, mathematics) and the social sciences (economics, management)

10.3 Accelerate human resource development in the power utilities in the areas of production, transmission and distribution

10.4 Accelerate research and development of energy technologies that are appropriate for adoption within the region

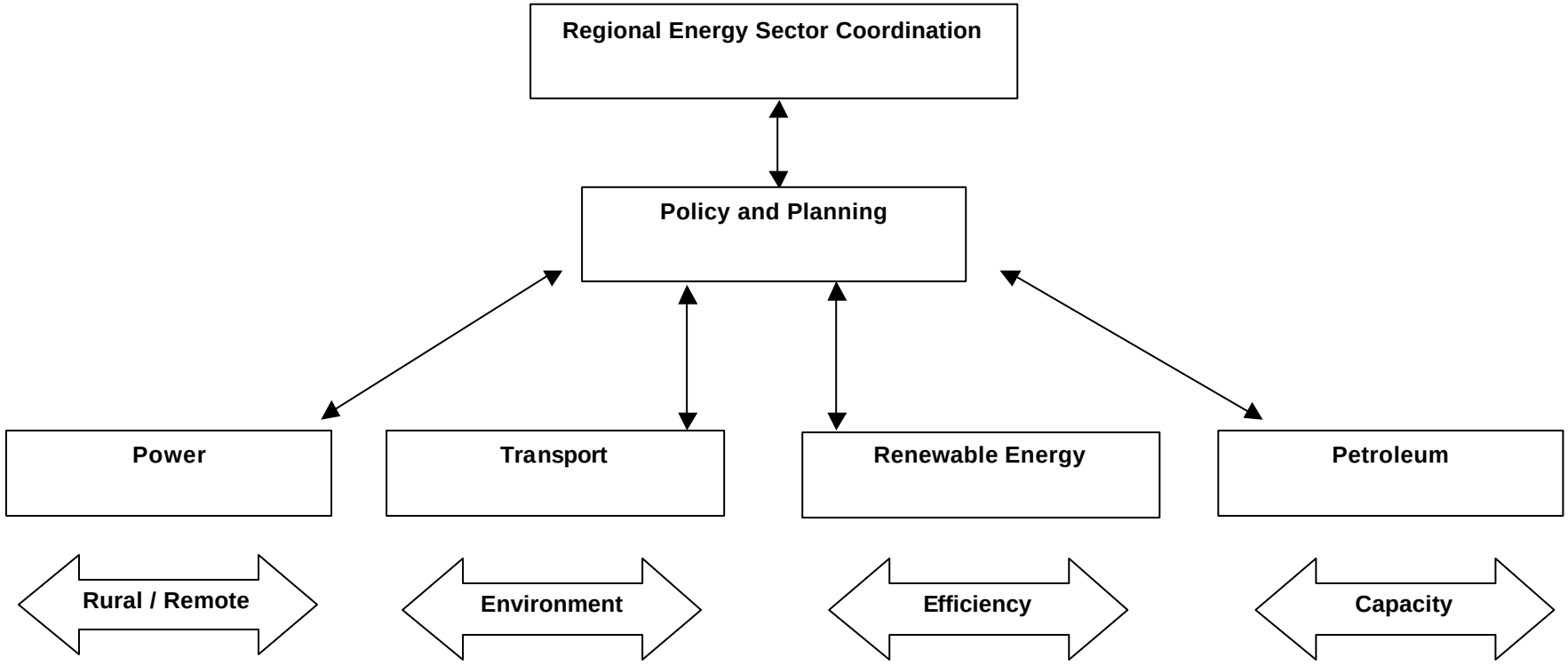
10.5 Increase training and public awareness on alternative and renewable fuels and vehicles, energy efficiency, and conservation through publicity campaigns and school curricula.

10.6 Develop community capacity for project planning and management of conventional and renewable energy projects

10.7 Develop and strengthen the enabling environment for women in the energy sector through gender mainstreaming and public awareness on energy-related gender issues

STRATEGIC PLAN

The Strategic Plan component of the PIEPP is organised and analysed according to the same themes used in the Policy component:



1. Regional Energy Sector Co-ordination

Goal: A co-operative approach to sector co-ordination that maximises the impact of regional resources and capabilities

Policy 1.1: Co-ordinate regional energy sector planning and programmes of regional organisations, associations, non-governmental organisations, and development partners through the Council of Regional Organisations of the Pacific (CROP) Energy Working Group.

Strategy 1.1.1 Improve co-ordination and awareness of regional energy agencies				
Activities	*Lead Organisation [Stakeholders]*	*Indicators [Means of Verification]*	*Assumptions/Risks [Mitigation]*	*Time Frame*
Co-ordinate the energy activities of regional energy agencies using the established mechanisms of the Council of Regional Organisations of the Pacific Energy Working Group (EWG)	PIFS [CROP agencies, industry reps, multilateral agencies, NGOs]	Complementarity of regional energy initiatives [Reports to REM]	The CROP EWG mechanism is effective [agreed mandates should address]	Ongoing
Publicise PICT and EWG activities through the PEN, PPA Pacific Power Magazine [PPM], and other appropriate outlets	SOPAC, PPA [CROP EWG]	No. of PEN issues No. of PPM issues	Regular circulation of the PEN and PPM Contributions	Ongoing
Disseminate communications on cooperative mandates, activities and procedures	PIFS [CROP EWG]	Circulars from the EWG [The circular's distribution list]	Inconsistent communications	Ongoing
Enhance the participation of stakeholders in the EWG	PIFS [CROP EWG, NSAs]	Participants at EWG meetings [EWG meeting records]	CROP membership not required [Participants are regularly invited]	Ongoing
Revise strategic plan component of the PEPP on an regular basis	CROP EWG			Annual

Strategy 1.1.1 Improve co-ordination and awareness of regional energy agencies				
Activities	*Lead Organisation [Stakeholders]*	*Indicators [Means of Verification]*	*Assumptions/Risks [Mitigation]*	*Time Frame*
Report on implementation of the PEPP	CROP EWG			Annual
Revise Energy component of Regional Strategy	PIFS	Final RS document	CROP agreement on mandates	May 2003

Strategy 1.1.2 Improve co-ordination and awareness of national, regional, and international energy activities and developments				
Activities	*Lead Organisation [Stakeholders]*	*Indicators [Means of Verification]*	*Assumptions/Risks [Mitigation]*	*Time Frame*
Support the participation of EWG members and PICTs in relevant national, regional, and international meetings	CROP EWG	Participation and involvement Presentations of national and regional positions [Meeting records and correspondence]	Invitations received Resources available [Donor coordination can support national requests for support]	Ongoing
Promote participation of international organisations and individuals in Pacific national and regional activities	CROP EWG	Participation and involvement Presentations of international positions [Meeting records and correspondence]	Invitations sent Resources available	Ongoing
Strengthen links between multilateral trade, environmental, and energy initiatives	CROP EWG	Investments in the energy sector increased. Bilateral and multi-lateral agreements on energy programs established.	Political stability.	2003 – 2005

Strategy 1.1.3 Improve communications between national, regional, and international stakeholders				
Activities	*Lead Organisation [Stakeholders]*	*Indicators [Means of Verification]*	*Assumptions/Risks [Mitigation]*	*Time Frame*
Make energy sector information available in published documents	CROP EWG	Documents published and distributed	Current documents	Ongoing
Make energy sector information available on CROP organisation web sites	CROP EWG	Documents posted and downloaded	Current documents Adequate bandwidth [national internet access]	2003 [ongoing]
Improve and support the access of PICT energy sector offices to the Internet	SOPAC (technical) PIFS (donor coordination)	Projects prepared or forwarded	Access funded nationally Development partner commitment	Ongoing

Policy 1.2: Mobilise increased official development assistance and financing from international and multilateral development partners for the implementation of national and regional energy strategies.

Strategy 1.2.1 Develop development partner interest in regional energy programmes				
Activities	*Lead Organisation [Stakeholders]*	*Indicators [Means of Verification]*	*Assumptions/Risks [Mitigation]*	*Time Frame*
Facilitate partner engagement in Pacific Energy Type II initiative	SOPAC [CROP EWG]	Development partner pledges	Bilateral assistance available	2003
Facilitate regional engagement in other international energy Type II initiatives	SOPAC [CROP EWG]	Development partner pledges	Bilateral assistance available	2003
Expand partner engagement to other regional initiatives	SOPAC [CROP EWG]	Development partner pledges	Bilateral assistance available	Ongoing

2. Policy and Planning

Goal: Open and consultative cross-sectoral policy development and integrated planning to achieve sustainable supply and use of energy

Policy 2.1: Ensure energy sector policy and planning addresses the availability and efficient use of sufficient, affordable and appropriate sources of energy, taking into account a balance of social, cultural, technological, institutional, environmental, economic, and global market issues

Strategy 2.1.1 Promote integrated national energy policy development and planning				
Activities	*Lead Organisation [Stakeholders]*	*Indicators [Means of Verification]*	*Assumptions/Risks [Mitigation]*	*Time Frame*
Support establishment of national energy policy and planning committees.	SOPAC	Sectoral issues considered in energy policy and planning.	Different sectors may have different focus, making integrated planning problematic.	2003 –2005
Strengthen national capacity to develop and promote policies and plans	SOPAC	Persons trained	Persons are available	2003 –2005
Provide technical assistance for development of national energy policies through an integrated approach.	SOPAC	Draft National Energy Policy developed / reviewed.	Government commitment at the highest political level National skill in policy development.	2003 –2005
Provide technical assistance for development of national energy plans through an integrated approach.	SOPAC	Draft National Energy Plan developed / reviewed.	Government commitment at the highest political level Clear development goals National skill in planning.	2003 –2005

Strategy 2.1.2 Improve information for national energy policy and planning				
Activities	*Lead Organisation [Stakeholders]*	*Indicators [Means of Verification]*	*Assumptions/Risks [Mitigation]*	*Time Frame*
Maintain regional energy supply and demand database.	SOPAC	Energy data available	Unavailability of national data.	2003 – 2005
Establish reliable and up-to-date national energy data.	SOPAC	Energy data available	Availability of data. Adequate national capacity for data collection/management	2003 – 2005
Build energy demand projections	SOPAC	Energy modelling template established.	Sufficient data available for energy modelling. Economic growth projections available	2003 – 2005
Conduct data modelling workshops	SOPAC	Workshop held	Availability of national data and suitable models	2004

Policy 2.2: Promote sustainable energy options for electricity generation, transportation, water supply, health care, education, telecommunication, food supply, and income generation.

Strategy 2.2.1 Support energy sector innovation toward sustainable energy technologies				
Activities	*Lead Organisation [Stakeholders]*	*Indicators [Means of Verification]*	*Assumptions/Risks [Mitigation]*	*Time Frame*
Evaluate alternative energy and fuel supply technologies	SOPAC / USP	Evaluations conducted Demonstration projects	Appropriate commercial technologies available	2003 - 2005
Disseminate results	SOPAC	Research reports Technical publications		Ongoing

Strategy 2.2.2 Stimulate private sector participation in energy programmes				
Activities	*Lead Organisation [Stakeholders]*	*Indicators [Means of Verification]*	*Assumptions/Risks [Mitigation]*	*Time Frame*
Identify and promote best-practice regulations to improve market operations	SOPAC [PPA]	National Energy Policy reviewed. Legal, financial and economic framework in place	Small market size.	2003 – 2005
Provide assistance to develop national frameworks to facilitate formation of Energy Service Companies (ESCO)	SOPAC [PPA]	ESCOs established	Small market size.	2003 – 2005
Identify and promote equitable tax and subsidy treatments for alternative technologies	SOPAC [PPA]	Tax and duty schedules	Non-viability of renewable energy resources.	2003 - 2005
Promote markets for alternative fuels	SOPAC [PPA]	Increase in the use of bio-fuels for power production and transportation.	Capital investment may be prohibitive.	2003 - 2005
Identify and promote incentives for partnerships in developing local energy resources.	SOPAC [PPA]	Creation of national incentive programmes	Appropriate legal frameworks	2003 - 2005

Strategy 2.2.3 Promote energy programmes for social development				
Activities	*Lead Organisation [Stakeholders]*	*Indicators [Means of Verification]*	*Assumptions/Risks [Mitigation]*	*Time Frame*
Identify links between social development and energy programmes	PIFS [CROP EWG]	Working paper		2003
Provide recommendations on the integration of social development initiatives into energy programmes	PIFS [CROP EWG]	Reports		2003 – 2005

Policy 2.3: Promote the development of appropriate regulatory guidelines to meet the needs of consumers resulting from sector reforms

Strategy 2.3.1 Develop model legislation and regulations				
Activities	*Lead Organisation [Stakeholders]*	*Indicators [Means of Verification]*	*Assumptions/Risks [Mitigation]*	*Time Frame*
Identify best-practice regulations from existing experiences	PIFS [PPA]	Report		2004
Develop model guidelines	PIFS [PPA]	Report		2004

Policy 2.4: Assess and promote indigenous resource potential and technical capacity for all aspects of sector planning and development.

Strategy 2.4.1 Develop a framework for increase use of indigenous energy resources				
Activities	*Lead Organisation [Stakeholders]*	*Indicators [Means of Verification]*	*Assumptions/Risks [Mitigation]*	*Time Frame*
Assess and evaluate indigenous energy resources.	SOPAC CROP EWG	Resource assessment programmes in place Indigenous energy sources identified, assessed and evaluated.		2003 – 2005
Identify barriers to widespread use of indigenous energy resources.	SPREP CROP EWG	PIREP and other reports		2003 - 2005
Encourage the sustainable production of indigenous energy sources in the Pacific Island Countries.	SOPAC	More indigenous energy projects started	Indigenous energy sources insufficient	2003 – 2005

Policy 2.5: Promote policy mechanisms for efficient use of energy in all sectors of the economy

Strategy 2.5.1 Promote the inclusion of energy efficiency in national policies and plans				
Activities	*Lead Organisation [Stakeholders]*	*Indicators [Means of Verification]*	*Assumptions/Risks [Mitigation]*	*Time Frame*
Promote requirements for energy efficiency in integrated planning and policy development	SOPAC [CROP EWG]	Model guidelines	Integrated planning adopted	2003 – 2005

3. Power

Goal: Reliable, safe and affordable access to efficient power for all Pacific islanders in both rural and urban parts of the region

Policy 3.1: Improve the efficiency of power production, transmission and distribution to decrease costs and fuel consumption.

Strategy 3.1.1 Reduce power system losses in power utilities				
Activities	*Lead Organisation [Stakeholders]*	*Indicators [Means of Verification]*	*Assumptions/Risks [Mitigation]*	*Time Frame*
Assess utilities for power system losses, to estimate energy efficiencies for region	PPA [Power Utilities]	Report completed quantifying system losses in sample utilities	Electrical system data available for each utility [Collect data]	End of 2001 (first six) Ongoing (others)
Develop database of all utility system electrical data	PPA [Power Utilities]	Handbook of each utility's system electrical data prepared. Software obtained to carry out system loss studies	Donor resources (financial) available	2004
Assist power utilities to prepare supply side management plans	PPA [Power Utilities]	Management plans prepared	Utility willing to participate Data and information available	Ongoing
Identify appropriate power system equipment that is appropriate and cost effective for use in supply side applications	PPA [Equipment suppliers]	Technologies, equipment and appliances identified and disseminated		Ongoing
Promote supply side management projects in all utilities to reduce losses by 30%	PPA [Power Utilities]	Energy Intensity statistics [Power utility annual report, national energy database] [Utility performance benchmarking]	Utility support Donor resources (financial) available	2007

Strategy 3.1.2 Enhance the skills of power utility staff				
Activities	*Lead Organisation [Stakeholders]*	*Indicators [Means of Verification]*	*Assumptions/Risks [Mitigation]*	*Time Frame*
Conduct a quantitative training needs assessment of utilities	PPA [Power Utilities]	Training needs assessment report completed for each utilities	Donor resources (financial) available	2001 (first report) Re-assessed every two years
Implement training of utility staff based on utility training needs assessment report	PPA [Power Utilities]	Personnel trained [training reports]	Utility support Donor resources (financial) available	2005

Policy 3.2: Develop corporatisation and commercialisation mechanisms for power utilities to facilitate improvements in power production, transmission and distribution.

Strategy 3.2.1 Develop standard corporatisation and commercialisation processes for power utilities in region				
Activities	*Lead Organisation [Stakeholders]*	*Indicators [Means of Verification]*	*Assumptions/Risks [Mitigation]*	*Time Frame*
Create corporatisation and commercialisation template for use by utilities that are statutory authorities	PPA [Power Utilities]	Templates created	Donor resources (financial) available Utilities / national acceptance [Confer on benefits]	2003
Recommend national regulation policy templates for industry	PPA [Power Utilities]	Regulation policy template created	Donor resources (financial) available Utilities / national acceptance [Confer on benefits]	2004

Policy 3.3: Expand where appropriate private sector participation, investment, ownership, and management arrangements for electricity generation, transmission and distribution.

Strategy 3.3 Create environment in power industry to facilitate private sector management, independent production and investment				
Activities	*Lead Organisation [Stakeholders]*	*Indicators [Means of Verification]*	*Assumptions/Risks [Mitigation]*	*Time Frame*
Review regulatory environment with respect to private participation	PIFS	Report on regulatory options		2003
Recommend options for corporatisation and commercialisation	PPA [Power Utilities]	Recommendations to national governments on standard template for statutory utilities [Number of valid enquiries from investors]	Donor resources (financial) available Utilities / national acceptance [Confer on benefits]	2004

Policy 3.4: Establish an enabling and competitive environment for the introduction of independent power providers where these may provide efficient, reliable, and affordable service to consumers.

Strategy 3.4 Promote benefits of investment in independent power production				
Activities	*Lead Organisation [Stakeholders]*	*Indicators [Means of Verification]*	*Assumptions/Risks [Mitigation]*	*Time Frame*
Create standard power purchase agreement template for use by governments and investors	PPA [Power Utilities]	Standard power purchase agreement created and used by utilities and governments	Donor resources (financial) available Utilities / national acceptance [Confer on benefits]	2004

Policy 3.5: Promote appropriate international best-practice regulations and standards for the safe and reliable supply, generation, transmission and distribution of power.

Strategy 3.5: Involve utilities in performance benchmarking both regionally and internationally				
Activities	*Lead Organisation [Stakeholders]*	*Indicators [Means of Verification]*	*Assumptions/Risks [Mitigation]*	*Time Frame*
Institute performance benchmarking with utilities	PPA [Power Utilities]	Benchmarking process achieved [Review of results conducted at PPA annual conference]	Donor resources (financial) available [Confer with utilities on benefits]	2005

Policy 3.6: Support the introduction of new commercially proven technologies and generating systems that are environmentally, economically, financially and socially viable.

Strategy 3.6 Raise awareness of utilities of commercially proven technologies and generating systems that are environmentally, economically, financially and socially viable				
Activities	*Lead Organisation [Stakeholders]*	*Indicators [Means of Verification]*	*Assumptions/Risks [Mitigation]*	*Time Frame*
Schedule presentations at annual PPA conferences and workshops on the new technology and systems by suppliers and users.	PPA [Power Utilities]	Number of presentations and workshops conducted	Donor resources (financially) available [Confer with industry on new technology and systems]	Ongoing
Disseminate technical working papers on generation technologies	SOPAC USP	Titles released		Ongoing

4. Transport

Goal: Environmentally clean, energy efficient, and cost effective transportation within the region

Policy 4.1 Evaluate and encourage the application of emerging environmentally clean technologies and alternative fuels for transport, and promote markets to make them more affordable and reliably available

Strategy 4.1.1 Determine appropriateness of alternatives				
Activities	*Lead Organisation [Stakeholders]*	*Indicators [Means of Verification]*	*Assumptions / Risks [Mitigation]*	*Time Frame*
Conduct research on alternative technologies and fuels	USP [SOPAC]	Literature reviews	Approval within existing research programmes	Ongoing
Disseminate information on appropriate alternatives	USP [SOPAC]	Working papers Articles in PEN		Ongoing

Policy 4.2 Promote emission control regulations and effective enforcement procedures.

Strategy 4.2.1 Promote a vehicle emission reduction project				
Activities	*Lead Organisation [Stakeholders]*	*Indicators [Means of Verification]*	*Assumptions / Risks [Mitigation]*	*Time Frame*
Develop regulatory guidelines for vehicle emissions standards	SPREP	Dissemination of guidelines	Resources (financial and TA) available	2004
Promote vehicle testing through regional technical assistance	SPREP	Training workshops conducted	Donor resources	2004
Provide technical assistance to implement a vehicle testing demonstration project	SPREP	National regulations Reduction of emissions [testing station records]	Full support of the transport sector	2005

Policy 4.3 Promote vehicle efficiency standards and encourage the import of more efficient vehicles.

Strategy 4.3.1 Create regional model guidelines				
Activities	*Lead Organisation [Stakeholders]*	*Indicators [Means of Verification]*	*Assumptions / Risks [Mitigation]*	*Time Frame*
Research existing standards	SPREP	Collection of source material	Resources (financial and TA) available	2003
Develop model guidelines for vehicle efficiency	SPREP	Dissemination of guidelines		2004
Disseminate model guidelines	SPREP	Publications [Distribution lists]		2004

Policy 4.4 Promote policy mechanisms that create a framework for greater use of public transportation.

Strategy 4.4.1 Increase awareness of available approaches from other countries				
Activities	*Lead Organisation [Stakeholders]*	*Indicators [Means of Verification]*	*Assumptions / Risks [Mitigation]*	*Time Frame*
Disseminate documentation on examples of successful implementation	PIFS	Documentation published		2004

5. Renewable Energy

Goal: An increased share of renewable energy in the region's energy supply

Policy 5.1: Promote the increased use of proven renewable energy technologies based on a programmatic approach.

Strategy 5.1.1 Design and implement a regional programme to promote the widespread and sustainable utilisation of proven renewable energy technologies				
Activities	*Lead Organisation [Stakeholders]*	*Indicators [Means of Verification]*	*Assumptions/Risks [Mitigation]*	*Time Frame*
Install 10,000 solar water heaters in schools, hospitals and community-based premises	SOPAC	Number of installed systems [Regional programme reports]	Resources (financial and TA) available	2012
Install 20,000 solar modules in rural electrification projects	SOPAC	Number of installed systems [Regional programme reports]		2012
Install 5 wind power projects with a combined capacity of 5 MW	SOPAC	Number of installed systems [Regional programme reports]		2012
Install 1pilot micro-hydro project	SOPAC	Number of installed systems [Regional programme reports]		2012
Support the use of bagasse and wood chips where feasible	SOPAC	Energy Mix statistics [Energy Sector annual report]		2012
Plant 0.5 million fuelwood seedlings in atoll countries	SOPAC	Energy Mix statistics [Energy Sector annual report]		2012

Strategy 5.1.2 Improve access to information and training materials, based on Pacific regional experiences in renewable energy				
Activities	*Lead Organisation [Stakeholders]*	*Indicators [Means of Verification]*	*Assumptions/Risks [Mitigation]*	*Time Frame*
Produce best practice manuals for planning and implementation of RE technologies	SOPAC	Number of information and educational materials produced	Availability of funds Regional capacity	
Produce an educational video on RE	SOPAC			
Produce RE leaflets	SOPAC			
Produce a directory of RE products suppliers and services providers in the PICTs	SOPAC			
Develop RE product and installation standards	SOPAC			
Maintain a RE web-site and mail list	SOPAC			

Strategy 5.1.3 Assess renewable energy potential in Pacific island countries				
Activities	*Lead Organisation [Stakeholders]*	*Indicators [Means of Verification]*	*Assumptions/Risks [Mitigation]*	*Time Frame*
Conduct wind resource assessments	SOPAC		Availability of funds There is regional capacity to manage the programme	2005 - 2007
Conduct bio-fuel feasibility studies	SOPAC			
Conduct feasibility studies of diesel/RE hybrid systems	SOPAC			

Strategy 5.1.4 Assist Pacific island countries to obtain funding for RE implementation				
Activities	*Lead Organisation [Stakeholders]*	*Indicators [Means of Verification]*	*Assumptions/Risks [Mitigation]*	*Time Frame*
Provide technical assistance to develop project proposals	SOPAC			
Provide technical assistance to submit proposals for funding to bilateral and multilateral development partners	SOPAC			
Collaborate with other agencies and stakeholders in developing RE project proposals	SOPAC			

Strategy 5.1.5 Investigate the feasibility of renewable energy technologies such as geothermal, bio-fuel, OTEC, biogas and wood gasifiers in the Pacific Islands				
Activities	*Lead Organisation [Stakeholders]*	*Indicators [Means of Verification]*	*Assumptions/Risks [Mitigation]*	*Time Frame*
Seek donor support for pilot and demonstration	SOPAC	Number of pilot and demonstration projects	Regional capacity for technical assistance	2007 - 2012
Implement, monitor, document and disseminate experiences with the demo projects projects	SOPAC			
Replicate the feasible and successful demo projects	SOPAC			

Policy 5.2: Promote the effective management of both grid-connected and stand-alone renewable-based power systems.

Strategy 5.2.1 Support the establishment and management of stand-alone renewable-based power systems by the power utilities				
Activities	*Lead Organisation [Stakeholders]*	*Indicators [Means of Verification]*	*Assumptions/Risks [Mitigation]*	*Time Frame*
Review power utility legislation to enable power utilities to manage stand alone power systems	SOPAC			2007 – 2012
Train power utility staff in the technical and financial management of stand alone power systems	SOPAC			

Policy 5.3: Promote a level playing field approach for the application of renewable and conventional energy sources and technologies.

Strategy 5.3.1: Remove biased barriers to the widespread application and reduction in the implementation costs of renewable energy technologies				
Activities	*Lead Organisation [Stakeholders]*	*Indicators [Means of Verification]*	*Assumptions/Risks [Mitigation]*	*Time Frame*
Remove biased management, technical, institutional, training, financial, policy, information and awareness barriers	SOPAC	No. of barriers removed	Barrier removal mechanisms are replicable among PICTs	2005 - 2007
Evaluate the renewable energy sectors of PICTs to identify root causes of barriers and how they can be removed	SPREP			2004
Implement barrier removal activities	SOPAC			

Policy 5.4: Promote partnerships between the private and public sectors and mobilise external financing to develop renewable energy initiatives.

Strategy 5.4.1: Implement externally financed projects through foreign and local, and private and public sectors partnerships				
Activities	*Lead Organisation [Stakeholders]*	*Indicators [Means of Verification]*	*Assumptions/Risks [Mitigation]*	*Time Frame*
Increase local private sector participation in renewable energy development	SOPAC			
Produce a tender invitation and analysis model which incorporates foreign and local, and private and public sector partnerships	SOPAC	No. of contracts established	Donors agree to the established partnerships	2005
Conduct training workshops on tender preparations, analysis and management	SOPAC			
Supervise in-country hardware-related project implementation by regional organisations and tender out the actual implementation	SOPAC			

6. Petroleum

Goal: Safe, reliable, and affordable supplies of petroleum products to all areas of the Pacific including rural and remote islands

Policy 6.1 Encourage increased competitive supply options by promoting independent ownership of fuel terminals

Strategy 6.1.1 Assess benefits of independent ownership of terminals				
Activities	*Lead Organisation [Stakeholders]*	*Indicators [Means of Verification]*	*Assumptions / Risks [Mitigation]*	*Time Frame*
Track and compare regional fuel prices at independent versus industry-owned terminals	PIFS	Regular PICT fuel price data	Availability of data	Ongoing
Conduct case studies of existing independent fuel terminals compared with oil company terminals	PIFS	Report		2003

Strategy 6.1.2 Encourage increased competitive supply options				
Activities	*Lead Organisation [Stakeholders]*	*Indicators [Means of Verification]*	*Assumptions / Risks [Mitigation]*	*Time Frame*
Encourage countries to tender widely for fuel supply	PIFS	Regular tenders for fuel supply to all interested suppliers	Independent fuel terminals in place	Ongoing
Encourage potential new fuel suppliers into the region	PIFS	At least one new fuel supplier every two years	Interested suppliers can be found	Ongoing
Promote partnerships with oil companies to provide professional training and expertise	PIFS [Private sector]	Contracts with oil companies secured	Contract may be biased	2003 – 2005
Encourage public and private sector financing of independent fuel terminals	PIFS [National Governments]	Finance available		Ongoing

Strategy 6.1.2 Encourage increased competitive supply options				
Activities	*Lead Organisation [Stakeholders]*	*Indicators [Means of Verification]*	*Assumptions / Risks [Mitigation]*	*Time Frame*
Provide technical assistance to support fuel price regulation	PIFS	Competitive regional fuel prices	Government support for price regulation	Ongoing

Policy 6.2: Encourage suppliers to maintain the quality of petroleum products in line with relevant standards and to introduce cleaner and better quality petroleum products as they become available

Strategy 6.2.1 Develop onshore fuel testing ability				
Activities	*Lead Organisation [Stakeholders]*	*Indicators [Means of Verification]*	*Assumptions / Risks [Mitigation]*	*Time Frame*
Encourage periodic independent testing of fuels to relevant standards	PIFS [USP or equivalent Technical Services]	Fuels tested	USP develops fuel testing capability	Ongoing

Strategy 6.2.2 Keep up to date with developing fuel related technologies				
Activities	*Lead Organisation [Stakeholders]*	*Indicators [Means of Verification]*	*Assumptions / Risks [Mitigation]*	*Time Frame*
Encourage introduction of cleaner and better products	PIFS	Awareness of cleaner products	Oil company cooperation	

Strategy 6.2.3 Keep up to date with developing regulations on fuels				
Activities	*Lead Organisation [Stakeholders]*	*Indicators [Means of Verification]*	*Assumptions / Risks [Mitigation]*	*Time Frame*
Maintain awareness of relevant standards and pending changes	PIFS	Updated technical information	Contact with agencies	Ongoing

Strategy 6.2.3 Keep up to date with developing regulations on fuels				
Activities	*Lead Organisation [Stakeholders]*	*Indicators [Means of Verification]*	*Assumptions / Risks [Mitigation]*	*Time Frame*
Monitor and report on technical developments	PIFS	Reports circulated	Information available	Ongoing
Encourage regional fuel standards with disincentives for non compliance	PIFS	Regional standards in place	Oil company agreement	
Sponsor in-country Dangerous Goods inspections	PIFS	DG Inspection reports	Funding available	Ongoing
Encourage on Dangerous Goods legislation and standards	PIFS	DG Regulations in force	Regulations relevant to Pacific Islands	
Train suitably qualified local personnel to Dangerous Goods Inspector standard	PIFS	Local DG Inspectors	Funding available	Ongoing

Policy 6.3: Assess alternative fuels and promote fuel substitution to reduce petroleum product imports

Strategy 6.3.1 Assess alternative fuels				
Activities	*Lead Organisation [Stakeholders]*	*Indicators [Means of Verification]*	*Assumptions / Risks [Mitigation]*	*Time Frame*
Identify and assess bio-fuels	PIFS	Study report		2003
Sponsor feasibility studies on introduction of appropriate bio-fuels	PIFS / USP	Study report		2004
Promote alternative fuels	PIFS SPREP SOPAC	Successful, quantified substitution	Tax, other incentives	2004

Policy 6.4: Co-operate regionally to collect and disseminate information on fuel demand, regional fuel prices, and related issues.

Strategy 6.4.1 Collect and disseminate relevant petroleum related information				
Activities	*Lead Organisation [Stakeholders]*	*Indicators [Means of Verification]*	*Assumptions / Risks [Mitigation]*	*Time Frame*
Collect regional fuel prices, wholesale, retail and organise into user friendly databases	PIFS [National fuel price regulators]	Data available on request	Information available	
Collect statistical fuel demand data, analyse and track trends	PIFS	Data available on request	Information available	

Policy 6.5: Promote the collection, transportation, and environmentally responsible re-use, disposal, or removal of waste oil and other petroleum by-products to minimise adverse impacts on soil, ground water, and near shore fisheries

Strategy 6.5.1 Develop a regional used and waste oil management initiative				
Activities	*Lead Organisation [Stakeholders]*	*Indicators [Means of Verification]*	*Assumptions / Risks [Mitigation]*	*Time Frame*
Develop regulatory guidelines for used & waste oil disposal, treatment or removal	SPREP / PIFS	National regulations		Two years
Provide technical assistance for identifying suitable disposal sites	SPREP	Sites identified		
Provide technical assistance for development of regulations for financial incentives to cater for used and waste oil disposal or removal	PIFS / WWF	Regulation developed		
Encourage used and waste oil collection mechanisms	SPREP / PIFS	Proportion of imported oil is collected and disposed of annually	Cooperation of oil companies	

Strategy 6.5.1 Develop a regional used and waste oil management initiative				
Activities	*Lead Organisation [Stakeholders]*	*Indicators [Means of Verification]*	*Assumptions / Risks [Mitigation]*	*Time Frame*
Develop public awareness campaign to promote used and waste oil collection and discourage indiscriminate dumping of waste oil	SPREP	Public awareness of the issue		

Policy 6.6: Promote equitable availability of petroleum products in rural and remote islands.

Strategy 6.6.1 Analyse availability of fuel in rural areas and remote islands				
Activities	*Lead Organisation [Stakeholders]*	*Indicators [Means of Verification]*	*Assumptions / Risks [Mitigation]*	*Time Frame*
Study current practices in PICTs to determine the extent of the prices versus availability of fuel in remote areas and outer islands	PIFS	Report		2003
Develop options and alternatives	PIFS	Report on options	Oil company cooperation	2004

Policy 6.7: Encourage exploration for and development of indigenous sources of petroleum products.

Strategy 6.7.1 Identify potential for development of petroleum exploration				
Activities	*Lead Organisation [Stakeholders]*	*Indicators [Means of Verification]*	*Assumptions / Risks [Mitigation]*	*Time Frame*
Identify potential for PICT indigenous petroleum	SOPAC	Updated Survey Reports		2006
Develop guidelines for exploration	SOPAC	Oil exploration guidelines		

7. Rural and Remote Islands

Goal: Reliable, affordable, and sustainable energy supplies for the social and economic development of rural and remote islands

Policy 7.1: Assess the availability, and promote the development, of indigenous energy resources and technical capacity as a substitute for imported fuels

Strategy 7.1.1: Conduct resource assessment activities				
	Lead Organisation [Stakeholders]	*Indicators [Means of Verification]*	*Assumptions/Risks [Mitigation]*	*Time Frame*
Carry out resource assessment activities in rural and remote areas	SOPAC	No. of assessments completed	Funding availability	
Install demonstration projects utilising local energy resources	SOPAC			

Policy 7.2: Promote opportunities for rural energy service companies and local manufacturers to supply equipment and human resources for project design, implementation, management and maintenance

Strategy 7.2.1 Support the establishment of rural energy service companies (RESCOs)				
Activities	*Lead Organisation [Stakeholders]*	*Indicators [Means of Verification]*	*Assumptions/Risks [Mitigation]*	*Time Frame*
Review existing legislations to support the establishment of RESCOs	SOPAC		Regional capacity for technical assistance	2007 - 2012
Institutionalise a regulatory framework for RESCOs	SOPAC			
Conduct training workshops on the legal, technical and financial management of RESCOs	SOPAC			

Policy 7.3: Develop sustainable energy options appropriate to remote areas, through an integrated approach, for electricity generation, transportation, water supply, health care, education, telecommunication, food supply and income generation.

Strategy 7.3.1 Develop energy projects based on energy as a mean to an end rather than energy as an end				
	Lead Organisation [Stakeholders]	*Indicators [Means of Verification]*	*Assumptions/Risks [Mitigation]*	*Time Frame*
Develop energy projects with significant socio-economic impacts	SOPAC	Socio-economic impacts of rural projects	Projects are of a magnitude to make a difference.	
Prioritise energy supply options and account for their impacts on other sectors	SOPAC			

Policy 7.4: Establish opportunities for better access to renewable energy technologies (such as stand alone solar systems and hybrid systems) in rural areas through the removal of barriers and constraints to sustainable rural energy sector development

Strategy 7.4.1 Design and implement energy and income generation renewable energy projects				
	Lead Organisation [Stakeholders]	*Indicators [Means of Verification]*	*Assumptions/Risks [Mitigation]*	*Time Frame*
Develop energy projects with direct income generation impacts	SOPAC	Per capita income	Micro rural enterprises are protected from external competitors	
Implement stand alone and hybrid projects that will facilitate handicraft making, fishing and value added activities	SOPAC			

Strategy 7.4.2 Support the establishment of an Energy Development Fund [EDF] for rural and remote areas				
	Lead Organisation [Stakeholders]	*Indicators [Means of Verification]*	*Assumptions/Risks [Mitigation]*	*Time Frame*
Availability of special targeted capital for energy development in the rural and remote areas	SOPAC	Availability of special funds for the rural and remote areas	Donors agree to cash grants	
Work together with PICTs and Development Banks to establishment the EDF.	SOPAC			

8. Environment

Goal: Environmentally sustainable development of energy sources and use of energy within the region

Policy 8.1: Promote strategic environmental assessments and full life-cycle environmental impact assessment of proposed energy supply and infrastructure policies and projects, including assessment of impacts on bio-diversity, greenhouse gas emissions, and local air quality

Strategy 8.1.1 Improve resource material				
Activities	*Lead Organisation [Stakeholders]*	*Indicators [Means of Verification]*	*Assumptions / Risks [Mitigation]*	*Time Frame*
Develop model guidelines for assessments of energy policies and projects	SPREP	Guidelines developed	Guidelines adopted	2003
Prepare case studies on integrated assessments	SPREP	Case reports	Suitable cases	2005

Strategy 8.1.2 Build capacity to undertake and analyze EIA's.				
Activities	*Lead Organisation [Stakeholders]*	*Indicators [Means of Verification]*	*Assumptions / Risks [Mitigation]*	*Time Frame*
Provide training to develop human and institutional capacity in conducting assessments	SPREP [CROP EWG]	Personnel trained	Personnel available	Ongoing
Provide assistance in conducting assessments and social and economic analysis as required / requested	SPREP [CROP EWG]	Assessment designs and reports	Personnel available	Ongoing
Review petroleum product and oil spill management plans	SPREP / PIFS	Reports		2003

Strategy 8.1.2 Build capacity to undertake and analyze EIA's.				
Activities	*Lead Organisation [Stakeholders]*	*Indicators [Means of Verification]*	*Assumptions / Risks [Mitigation]*	*Time Frame*
Prepare environmental guidelines for the safe and efficient management of oil spills	SPREP / PIFS	Guidelines prepared		2004

Policy 8.2: Incorporate mechanisms in conventional and renewable energy supply and infrastructure plans for effective management and ultimate disposal of wastes during their development, operation, and decommissioning.

Strategy 8.2.1 Promote guidelines with acceptable measures to deal with waste products from energy technology, infrastructure and supply				
Activities	*Lead Organisation [Stakeholders]*	*Indicators [Means of Verification]*	*Assumptions / Risks [Mitigation]*	*Time Frame*
Prepare model guidelines for the management and disposal of components from renewable energy systems (solar panels, batteries, regulators etc)	SPREP	Standards and guidelines prepared		2003
Develop model guidelines for the collection, consolidation, handling and management of priority hazardous materials as identified	SPREP	Standards and guidelines prepared		2004
Develop model guidelines for the recycling of priority materials as identified	SPREP	Guidelines developed	Feasibility of recycling	2003
Prepare model guidelines for the environmentally safe decommissioning of power stations	PPA	Guidelines prepared	Environment Agencies' support	2004

Strategy 8.2.2 Promote appropriate recycling or disposal of energy sector waste products				
Activities	*Lead Organisation [Stakeholders]*	*Indicators [Means of Verification]*	*Assumptions / Risks [Mitigation]*	*Time Frame*
Collect and analyse data on types and volumes of materials that can be recycled	SPREP	Report prepare with recommendations	Countries supply data	2003 -2005
Identify markets for the use of the recycled materials	SPREP	Markets identified	Markets available for recycled materials	2004
Establish recycling plants for the treatment of priority materials identified	SPREP [Private sector]	Recycling plants established Reduced levels of waste materials	That there aren't plants already available	2007
Determine the types and volumes of waste materials that cannot be recycled	SPREP	Report prepared with recommendations	Countries supply data	2005
Promote the disposal of waste materials in accordance with best practices	SPREP	Country adoption of established practices	Countries believe it is a priority	2005

Policy 8.3: Integrate environmental regulations into all energy-related plans, including transportation, power supply, and building codes.

Strategy 8.3.1 Promote the integration of environmental standards and regulations into energy-related plans				
Activities	*Lead Organisation [Stakeholders]*	*Indicators [Means of Verification]*	*Assumptions / Risks [Mitigation]*	*Time Frame*
Develop model standards and regulations to reduce the detrimental impacts of energy generation, distribution and consumption on the environment	SPREP [PPA]	Regulations developed	Regulations adopted	2005

Strategy 8.3.1 Promote the integration of environmental standards and regulations into energy-related plans				
Activities	*Lead Organisation [Stakeholders]*	*Indicators [Means of Verification]*	*Assumptions / Risks [Mitigation]*	*Time Frame*
Promote the Integration of environmental standards and regulations into all related energy sector plans, including power supply and building codes, through training and awareness activities	SPREP [PPA]	Regulations developed and disseminated	Appropriate people identified to train	2006
Promote the Implementation and enforcement of regulations and standards for the reduction of emissions from energy generation	SPREP [PPA]		Environment Agencies' support	2003

Strategy 8.3.2 Promote market-based instruments for environmental protection				
Activities	*Lead Organisation [Stakeholders]*	*Indicators [Means of Verification]*	*Assumptions / Risks [Mitigation]*	*Time Frame*
Environmental issues addressed in the national energy policy	SPREP	Regulations developed	Regulations adopted	2003 - 2005
Environmental issues considered in energy projects appraisal and evaluation.	SPREP		Environment Agencies' support	2003 - 2005

Policy 8.4: Continue to support international action on reduction of greenhouse gases.

Strategy 8.4.1 Promote and support international action on reduction of greenhouse gasses				
Activities	*Lead Organisation [Stakeholders]*	*Indicators [Means of Verification]*	*Assumptions / Risks [Mitigation]*	*Time Frame*
Monitor compliance under relevant international conventions	SPREP	UNFCCC compliance reports National Communications	Kyoto Protocol ratified GHG inventories carried out	Ongoing
Participate actively and advocate regional positions in relevant UN fora	SPREP [CROP EWG]	Meeting records	Resource availability Expertise	Ongoing
Monitor and disseminate accurate and timely information on developments in international fora	SPREP [CROP EWG]	COP briefing papers COP reports		Ongoing
Actively seek alternative sources of energy that reduce greenhouse gas emissions	SPREP [CROP EWG]	PIREP Project reports		2003
Promote enabling environments for the use of alternative sources of energy	SPREP [CROP EWG]	PIREP Project reports		2003
Raise awareness of the linkages between greenhouse gas emissions, adverse effects on the environment, and PICT vulnerability to climate change	SPREP [CROP EWG]	Timely dissemination of relevant information / reports		Ongoing

Policy 8.5: Oppose the use of nuclear energy in the region in recognition that it is inappropriate and unacceptable

Strategy 8.5.1 Promote awareness of nuclear energy issues				
Activities	*Lead Organisation [Stakeholders]*	*Indicators [Means of Verification]*	*Assumptions / Risks [Mitigation]*	*Time Frame*
Provide assistance and advice when preparing policies and planning statements	PIFS	Policies and plans where assistance provided	Acceptance of assistance an advice	Ongoing
Provide information and technical publications to PICTs on safety, waste and transportation issues	SOPAC / NSAs	Publications prepared and disseminated	Countries acknowledge and use information and publications prepared and provided	Ongoing
Provide information and technical publications to PICTs on energy sources and developments	SOPAC / NSAs	Publications prepared and disseminated	Countries acknowledge and use information and publications prepared and provided	Ongoing

9. Efficiency and Conservation

Goal: Optimised energy consumption in all sectors of the regional economy and society.

Policy 9.1 Improve the efficiency of energy production, transmission and distribution through supply side management.

Strategy 9.1.1 Analyse options for increasing energy efficiency				
Activities	*Lead Organisation [Stakeholders]*	*Indicators [Means of Verification]*	*Assumptions/Risks [Mitigation]*	*Time Frame*
Identify policy and market barriers to energy efficiency	SOPAC			2003 – 2005
Promote use of energy efficient technologies.	SOPAC	A framework for energy efficiency programme in place	Industry players willing to invest in energy efficiency programmes.	
Develop model regulations covering technologies for power production	SOPAC			
Develop model regulations for other sectors of the economy such as the building industry, agriculture, and manufacturing	SOPAC			

Strategy 9.1.2 Encourage demand management, energy efficiency and conservation.				
Activities	*Lead Organisation [Stakeholders]*	*Indicators [Means of Verification]*	*Assumptions/Risks [Mitigation]*	*Time Frame*
Audit energy consumption in government institutions.	SOPAC		National government commitment to DSM, energy efficiency and conservation	2003 - 2005

Strategy 9.1.2 Encourage demand management, energy efficiency and conservation.				
Activities	*Lead Organisation [Stakeholders]*	*Indicators [Means of Verification]*	*Assumptions/Risks [Mitigation]*	*Time Frame*
Promote minimum energy efficiency standards for white goods	SOPAC		Market restrictions may increase costs	2003 - 2005
Design and promote energy star rating and labelling programmes	SOPAC	Appliances are labelled		2003 - 2005
Increase awareness of the financial and environmental benefits of efficient products and appliances	SOPAC			2003 - 2005

Policy 9.2 Introduce demand side management programmes for enhancing energy efficiency and conservation so as to reduce the energy consumption in government facilities, residential and commercial buildings, industry, agriculture and forestry.

Strategy 9.2.1 Develop national demand side management plans				
Activities	*Lead Organisation [Stakeholders]*	*Indicators [Means of Verification]*	*Assumptions/Risks [Mitigation]*	*Time Frame*
Provide technical assistance to develop national DSM plans	SOPAC	Management plans developed	National support and acceptance	
Provide technical assistance to integrate national DSM plans into national energy sector development plans	SOPAC	Demand side management plans integrated	Plan not integrated / acceptance	
Provide technical assistance for national implementation of DSM plans	SOPAC	Management plan implemented	National support / acceptance	
Monitor and report on the impact of implementing the management plans	SOPAC	Improved management of demand side management activities	Ability to monitor the change in consumer / user profiles	

Strategy 9.2.2 Identify and implement demand side management projects				
Activities	*Lead Organisation [Stakeholders]*	*Indicators [Means of Verification]*	*Assumptions/Risks [Mitigation]*	*Time Frame*
Identify and prioritize potential areas where demand side management intervention will improve energy efficiency and conservation	SOPAC	Priority areas where demand side management intervention will improve energy efficiency and conservation identified	Correct identification and prioritization	
Prepare a report detailing and recommending where demand side management intervention can improve energy efficiency and conservation	SOPAC	Report available	Appropriate level of detail and correct information is available	
Identify demand side management project projects	SOPAC	Projects identified	Best opportunity areas selected	
Prepare detailed project proposals	SOPAC	Project profiles prepared	Best opportunity areas selected	
Identify funding for priority demand side management projects as proposed	SOPAC	Funding identified	Funding will able to be identified in a timely manner	
Submit project proposals for funding consideration	SOPAC	Funding confirmed / secured	Funding available / total funding available	
Provide technical assistance to implement demand side projects	SOPAC	Projects completed	Funding available	
Monitor and report on the impact of implementing the projects	SOPAC	Reduced energy consumption	Projects are completed as planned and within budget	

Strategy 9.2.4 Identify technologies, equipment and appliances for use in demand side management				
Activities	*Lead Organisation [Stakeholders]*	*Indicators [Means of Verification]*	*Assumptions/Risks [Mitigation]*	*Time Frame*
Identify appropriate technologies, equipment and appliances that are cost effective for use in demand side applications	SOPAC / PPA	Technologies, equipment and appliances identified	Technologies, equipment and appliance required are able to be identified	
Investigate cost effective methods for bulk purchase and supply of energy efficient equipment and appliances	SOPAC / PPA	Purchase and supply arrangements identified and established	Economies of scale can be created (Volumes too small / relative distances / isolation)	
Recommend supply and purchase options for equipment and appliances for use in priority areas	SOPAC / PPA	Recommendations available	Appropriate supply and purchase arrangements can be negotiated	

Policy 9.3 Introduce minimum energy performance standards for electrical equipment, adoption of building energy codes.

Strategy 9.3.1 Design and promote minimum energy performance standards (MEPS)				
Activities	*Lead Organisation [Stakeholders]*	*Indicators [Means of Verification]*	*Assumptions/Risks [Mitigation]*	*Time Frame*
Determine and recommend appropriate MEPS for the Pacific region	SOPAC	MEPS identified	Ability to identify accurately target areas	
Propose to national governments an implementation plan for the introduction of MEPS	SOPAC	National implementation plan prepared	Acceptance of the implementation plan	
Provide technical assistance for national Implementation of MEPS	SOPAC	National plan implemented	Appropriate legislations adopted	

Evaluate the impact of MEPS on reducing energy consumption and prepare a report	SOPAC	Report prepared	Transparency in evaluating changes	

Strategy 9.3.2 Integrate energy efficient practices into national building codes				
Activities	*Lead Organisation [Stakeholders]*	*Indicators [Means of Verification]*	*Assumptions/Risks [Mitigation]*	*Time Frame*
Review existing national building codes	SOPAC	Summary report prepared	Codes available	
Develop appropriate energy efficiency standards for integration into building codes	SOPAC	Generic building code developed	Codes available	
Provide technical assistance to integrate standards into national building codes	SOPAC	Generic building code integrated into national building codes	National support	
Transfer information to the engineering, architectural, building, technical and inspectorate fraternities	SOPAC	Build code compliance reflected in new designs and in retrofits	Change in the codes ignored and standards not maintained	

Policy 9.4 Promote appropriate packages of incentives (including taxes, duties and tariffs) to encourage efficient energy use.

Strategy 9.4.1 Review taxes, duties and tariffs to promote import of energy-efficient appliances and materials				
Activities	*Lead Organisation [Stakeholders]*	*Indicators [Means of Verification]*	*Assumptions/Risks [Mitigation]*	*Time Frame*
Review existing national taxes, duties and tariffs relevant to energy efficiency and conservation	SOPAC [PIFS]	National and summary report prepared	National acceptance of the benefits of a reviewing	
Recommend modifications to existing taxes, duties and tariffs		National report	Acceptance of the recommendations	

Strategy 9.4.1 Review taxes, duties and tariffs to promote import of energy-efficient appliances and materials				
Activities	*Lead Organisation [Stakeholders]*	*Indicators [Means of Verification]*	*Assumptions/Risks [Mitigation]*	*Time Frame*
Provide technical assistance to develop national action plans for recommended modifications to existing taxes, duties and tariffs	SOPAC [PIFS]	Action plans Cabinet papers	No national participation / acceptance of recommendations	
Review impact on financial and import statistics	SOPAC [PIFS]	Changes in financial and import statistics	Appropriate records are available and accurate	

Policy 9.5 Encourage co-operation in energy efficiency and conservation programmes between the private sector, consumers and governments, by increasing public awareness and improving access to information.

Strategy 9.5.1 Increase multi-stakeholder co-operation in energy efficiency and conservation programs				
Activities	*Lead Organisation [Stakeholders]*	*Indicators [Means of Verification]*	*Assumptions/Risks [Mitigation]*	*Time Frame*
Include representatives of the private sector, consumers, and governments in regional energy meetings	CROP EWG	Private sector, consumers, governments and other stakeholders working cooperatively together	All relevant stakeholders available	Annual

Strategy 9.5.2 Conduct a public awareness campaign on energy efficiency and conservation				
Activities	*Lead Organisation [Stakeholders]*	*Indicators [Means of Verification]*	*Assumptions/Risks [Mitigation]*	*Time Frame*
Design public awareness campaign	SOPAC	Campaign details available	HRD Resources available	
Develop information pamphlets and posters	SOPAC	Pamphlets and posters developed and available	HRD resources available	

Strategy 9.5.2 Conduct a public awareness campaign on energy efficiency and conservation				
Activities	*Lead Organisation [Stakeholders]*	*Indicators [Means of Verification]*	*Assumptions/Risks [Mitigation]*	*Time Frame*
Disseminate information, pamphlets and posters	SOPAC	Pamphlets and posters disseminated	Appropriate audience targeted	
Evaluate effectiveness of public awareness campaign	SOPAC	Report	Transparency in evaluating changes	

Strategy 9.5.3 Prepare and disseminate technical publications				
Activities	*Lead Organisation [Stakeholders]*	*Indicators [Means of Verification]*	*Assumptions/Risks [Mitigation]*	*Time Frame*
Design, prepare, edit and format technical publications	SOPAC	Publications designed and ready for printing	Technical resources available	
Publish technical publications	SOPAC	Publication available	Funds available	
Disseminate technical publications	SOPAC	Improved understanding of energy efficiency and conservation	Funds available	
Evaluate effectiveness / usefulness of publication	SOPAC	Degree in improvement in the understanding of energy efficiency and conservation	Transparency in evaluating changes	

10. Human and Institutional Capacity

Goal: Adequate human and institutional capacity to plan, manage, and develop the Pacific energy sector

Policy 10.1 Provide appropriate energy-related training opportunities regionally at all educational and professional levels.

Strategy 10.1.1 Develop a framework for human and institutional capacity building				
Activities	*Lead Organisation [Stakeholders]*	*Indicators [Means of Verification]*	*Assumptions/Risks [Mitigation]*	*Time Frame*
Conduct a needs analysis on training needs in the region	USP [CROP EWG]	Needs analysis report		2003
Prepare a training plan for the region targeting short, medium and long term training	USP / SOPAC [CROP-EWG]	Regional training plan		2004
Prepare an institutional development plan for delivery of training	USP / SOPAC [CROP-EWG]	Regional institutional development plan		2005

Strategy 10.1.2 Enhance capacity in energy planning				
Activities	*Lead Organisation [Stakeholders]*	*Indicators [Means of Verification]*	*Assumptions/Risks [Mitigation]*	*Time Frame*
Provide training attachments of PICTs nationals to regional energy agencies	SOPAC [CROP EWG]	Personnel trained in energy planning	Resource availability	2006
Develop and offer tertiary programmes	USP [CROP EWG]	Personnel trained in energy planning	Scholarships available in energy planning	2005+
Conduct national workshops	SOPAC [CROP EWG]	Personnel trained in energy planning		Ongoing

Strategy 10.1.2 Enhance capacity in energy planning				
Activities	*Lead Organisation [Stakeholders]*	*Indicators [Means of Verification]*	*Assumptions/Risks [Mitigation]*	*Time Frame*
Conduct regional workshops	SOPAC [CROP EWG]	Personnel trained in energy planning		Ongoing

Strategy 10.1.3 Enhance capacity in energy management				
Activities	*Lead Organisation [Stakeholders]*	*Indicators [Means of Verification]*	*Assumptions/Risks [Mitigation]*	*Time Frame*
Provide training attachments of PICTs nationals to regional energy agencies	SOPAC [CROP EWG]	Personnel trained in energy management	Resource availability	2006
Develop and offer tertiary programmes	USP [CROP EWG]	Personnel trained in energy management	Scholarships available in energy management	2005+
Conduct national workshops	SOPAC [CROP EWG]	Personnel trained in energy management		Ongoing
Conduct regional workshops	SOPAC [CROP EWG]	Personnel trained in energy management		Ongoing

Strategy 10.1.4 Build capacity in professional, vocational and technical skills				
Activities	*Lead Organisation [Stakeholders]*	*Indicators [Means of Verification]*	*Assumptions/Risks [Mitigation]*	*Time Frame*
Coordinate training attachments of PICTs nationals to appropriate institutions	SOPAC [CROP EWG]	Personnel trained in energy management	Resource availability	2006
Develop and offer tertiary programmes	USP [CROP EWG]	Personnel trained in energy management	Scholarships available in energy management	2005+

Strategy 10.1.4 Build capacity in professional, vocational and technical skills				
Activities	*Lead Organisation [Stakeholders]*	*Indicators [Means of Verification]*	*Assumptions/Risks [Mitigation]*	*Time Frame*
	[Voc/tech institutions]			
Conduct national workshops	SOPAC [CROP EWG]	Personnel trained in energy management		Ongoing
Conduct regional workshops	SOPAC [CROP EWG]	Personnel trained in energy management		Ongoing

Policy 10.2 Promote an interdisciplinary approach to energy training and capacity building programmes that merges the physical sciences (physics, engineering, mathematics) and the social sciences (economics, management)

Strategy 10.2.1 Provide a regional focus for energy research, analysis, and training				
Activities	*Lead Organisation [Stakeholders]*	*Indicators [Means of Verification]*	*Assumptions/Risks [Mitigation]*	*Time Frame*
Create a regional centre of excellence in energy	USP [CROP EWG] [Private sector]	Number of research reports Persons trained Requests fielded	Endorsement from CROP and Governments Support from development partners	2004

Policy 10.3 Accelerate human resource development in the power utilities in the areas of production, transmission and distribution

Strategy 10.3.1 Train power utility personnel				
Activities	*Lead Organisation [Stakeholders]*	*Indicators [Means of Verification]*	*Assumptions/Risks [Mitigation]*	*Time Frame*
Identify and coordinate training at	PPA	Personnel trained	Resource availability	2003

Strategy 10.3.1 Train power utility personnel				
Activities	*Lead Organisation [Stakeholders]*	*Indicators [Means of Verification]*	*Assumptions/Risks [Mitigation]*	*Time Frame*
technician level				
Facilitate attachments between power utilities	PPA	Personnel trained		2003
Identify and promote opportunities to obtain engineering qualifications	PPA [Professional associations] [Private Sector]	Awards	Resource availability	2003

Policy 10.4 Accelerate research and development of energy technologies that are appropriate for adoption within the region

Strategy 10.4.1 Enhance regional research and development				
Activities	*Lead Organisation [Stakeholders]*	*Indicators [Means of Verification]*	*Assumptions/Risks [Mitigation]*	*Time Frame*
Conduct research on appropriate new technologies and fuels	USP	Number of research projects	Ability of institutions to attract researchers Research grants available	Ongoing
Conduct research on adapting appropriate existing technologies	USP [Private sector]	Number of research projects	Ability of institutions to attract researchers Research grants available	Ongoing
Promote private sector participation in energy technologies research	CROP-EWG	Degree of private sector support for R&D	Adequate return on investment	Ongoing
Expand and maintain data base of knowledge and expertise about energy technologies in the region	SOPAC	Availability of data on energy technologies		2003

Strategy 10.4.1 Enhance regional research and development				
Activities	*Lead Organisation [Stakeholders]*	*Indicators [Means of Verification]*	*Assumptions/Risks [Mitigation]*	*Time Frame*
Disseminate information on appropriate alternatives	USP / SOPAC [Private sector] [Power utilities]	Working papers	Resources for publication	Ongoing

Policy 10.5 Increase training and public awareness on alternative and renewable fuels and vehicles, energy efficiency, and conservation through publicity campaigns and school curricula.

Strategy 10.5.1 Co-ordinate national and regional awareness activities				
Activities	*Lead Organisation [Stakeholders]*	*Indicators [Means of Verification]*	*Assumptions/Risks [Mitigation]*	*Time Frame*
Develop a regional communications strategy on energy literacy	SOPAC	Completed strategy		2003
Identify partnerships for awareness activities	PIFS	Agreements reached		2003
Provide technical assistance for development of national awareness programmes	CROP EWG	Requests for assistance Energy for social development included in national energy programs. Media participation in promotion of energy for uplifting standard of living	Lack of government commitment. National budget restrictions Media response	2003 – 2005

Strategy 10.5.1 Co-ordinate national and regional awareness activities				
Activities	*Lead Organisation [Stakeholders]*	*Indicators [Means of Verification]*	*Assumptions/Risks [Mitigation]*	*Time Frame*
Disseminate PEPP	PIFS	Distribution lists		2003
Develop and promote energy components for school curricula	USP / SOPAC / SPREP		Education Department endorsement of schools energy programmes.	Ongoing

Policy 10.6 Develop community capacity for project planning and management of conventional and renewable energy projects

Strategy 10.6.1 Develop a model for community project management				
Activities	*Lead Organisation [Stakeholders]*	*Indicators [Means of Verification]*	*Assumptions/Risks [Mitigation]*	*Time Frame*
Enhance training of community leaders	SOPAC [NSAs]	Personnel trained	Resource availability Trained nationals are retained in the region	Ongoing
Supplement existing project management materials to incorporate energy sector	PCRC [NSAs]	Manual published		2005

Policy 10.7 Develop and strengthen the enabling environment for women in the energy sector through gender mainstreaming and public awareness on energy-related gender issues

Strategy 10.7.1 Plan for gender mainstreaming				
Activities	*Lead Organisation [Stakeholders]*	*Indicators [Means of Verification]*	*Assumptions/Risks [Mitigation]*	*Time Frame*
Develop a Pacific Regional Action Plan for Women and Sustainable Energy	SOPAC	Completed plan	Resource availability	2003

Strategy 10.7.1 Plan for gender mainstreaming				
Activities	*Lead Organisation [Stakeholders]*	*Indicators [Means of Verification]*	*Assumptions/Risks [Mitigation]*	*Time Frame*
Services	[NSAs]			
Identify and promote training opportunities for women	CROP EWG [NSAs]	Number of trained women in the energy sector	Lack of priority in allocating scholarships and opportunities	Ongoing
Incorporate gender issues in meeting agendas	CROP EWG	Agendas		Ongoing
Promote existing gender mainstreaming policies and strategies to sector contacts	PIFS [CROP EWG]	Documentation distributed		2003

THE RAROTONGA DECLARATION
ON ENERGY FOR THE SUSTAINABLE DEVELOPMENT OF THE PACIFIC ISLANDS

The Pacific Regional Energy Meeting convened in the Cook Islands 15th – 19th of July 2002:

Reaffirming our region's commitment to the implementation of Agenda 21 and the Rio Principles;

Concerned about our heavy reliance on fossil fuels, energy supply security, its effects on our small and vulnerable economies, and the constraints this places on our sustainable Development;

Concerned at the increased vulnerability of low-lying atolls in the Pacific Region, to climate change, climate variability and sea level rise, significantly contributed to by Global emissions of GHG's.

Deeply concerned at the environmental and cultural damage, habitat loss and pollution resulting from development and use of conventional energy sources on our fragile Island ecosystems and the need for effective international support and efforts at all levels;

Welcoming the progress made to finalise the Draft Implementation Plan for the World Summit on Sustainable Development, in particular, on the issue of promoting Renewable Energy and access to energy for the poor;

Acknowledging the World Summit on Sustainable Development processes and the importance Energy has to play in Sustainable Development as identified in the WSSD Plan of Action.

Recognising the vital role Energy plays in achieving Sustainable Development in the Pacific Region.

NOW THEREFORE, the Meeting:

Calls on all States to set effective targets and timetables within the WSSD Implementation Plan to achieve a significant increase in, and access to, the use of renewable sources of Energy and Energy Efficiency

Calls on the International Community to support the ratification of the Kyoto protocol

Further Calls on all States to support Pacific island people in their efforts to develop and improve access to affordable, reliable, and environmentally sound energy for Sustainable Development for all Pacific Islanders;

Calls on the partners and stakeholders to energy Initiatives in the Pacific Region to ensure the appropriate transfer of Technology

Supports the Type II Initiative/Partnership on Energy for Sustainable Development in the Pacific, as a basis for further consultation and partnership development;

Urges the international community, and funding agencies to recognise the priorities and activities contained in the Pacific Energy Policy and Plan and to assist the region in its implementation

Further Urges the international Community to respect the right of Pacific Island Countries to determine what sources of Energy are most appropriate for their Sustainable Development.

CROP ENERGY WORKING GROUP CONTACTS

Pacific Islands Forum Secretariat (PIFS)				
Dr Robert Guild Economic Infrastructure Adviser Private Mail Bag, Suva, FIJI ISLANDS	Phone: Fax:	+679 322 0212 +679 330 0192	Email: Internet:	robertg@forumsec.org.fj www.forumsec.org.fj
Mr Alan Bartmanovich Petroleum Adviser	Phone: Fax:	+679 322 0247 +679 331 2226	Email: Internet:	AlanB@forumsec.org.fj www.forumsec.org.fj
Pacific Power Association (PPA)				
Mr Tony Neil Executive Director Private Mail Bag Suva, FIJI ISLANDS	Phone: Fax:	+679 330 6022 +679 330 2038	Email: Internet:	tonyneil@ppa.org.fj www.ppa.org.fj
Secretariat of the Pacific Community (SPC)				
Mr Solomone Fifita Renewable Energy Adviser BP D5-98848 Noumea, NEW CALEDONIA	Phone : Fax:	+687 262 000 +687 263 818	Email: Internet:	SolomoneF@spc.int www.spc.int
South Pacific Applied Geoscience Commission (SOPAC)				
Mr Paul L. Fairbairn Energy Manager Private Mail Bag, Suva, FIJI ISLANDS	Phone : Fax:	+679 338 1377 +679 337 0040	Email: Internet:	paul@sopac.org www.sopac.org.fj
South Pacific Regional Environmental Programme (SPREP)				
Mr Tamari'i Tutangata Director PO Box 240, Apia, SAMOA	Phone: Fax:	+685 21 929 +685 20 231	Email: Internet:	TamariiT@sprep.org.ws www.sprep.org.ws

University of the South Pacific (USP)		
Dr Mahendra Kumar Associate Professor of Physics School of Pure & Applied Sciences University of the South Pacific P O Box 1168 Suva, FIJI ISLANDS	Phone: +679 212430 (direct) +679 313900 (switchboard) Fax: +679 302548 or +679 308972	Email: kumar_m@usp.ac.fj Internet: www.usp.ac.fj
United Nations Development Programme (UNDP)		
Mr Thomas Twining-Ward Environment Advisor Private Mail Bag Apia, SAMOA	Phone: +685 23 670 Fax: +685 23 555	Email: tom.twining-ward@undp.org Internet:www.undp.org.ws