**NATIONAL DIALOGUE ON ADVANCING TUVALU’S ENERGY AND GHG MITIGATION TARGETS**

**Funafuti**

**19 -22 August 2019**

**Concept Note**

1. **Background**

The Pacific Centre for Renewable Energy and Energy Efficiency (PCREEE) was established in April 2017, under the Geoscience Energy and Maritime Division of SPC, as a regional vehicle for accelerating the transition to low carbon through the uptake of feasible renewable energy and energy efficient technologies in the Pacific islands Countries and Territories.

Outcome 3 of the PCREEE is about Strengthened *awareness and knowledge base of local key institutions and stakeholder groups on RE & EE.*

Outcome 4 is about Increased RE & EE business opportunities for local companies and industry through the development and implementation of regional investment promotion programs and tailored financial schemes.

 PICs’ are approaching the end of their respective energy target timeframes and this provides an opportunity for a national dialogue on the progress, opportunities and challenges and to collectively map the target and way forward for the next planning period.

Tuvalu is among the most vulnerable to the impacts of climate change and is known for its regional and global leadership in the fight against climate change. At the national level, Tuvalu has adopted a Master Plan for Renewable Electricity and Energy Efficiency in Tuvalu [Enetise Tutumau: 2012 - 2020] in 2012 with a bold and ambitious targets of:

* Generating electricity with 100% renewable energy by 2020
* Increasing energy efficiency on Funafuti by 30%.

This is a reflection of the need to be ambitious and to take urgent actions, which are at the heart of the Paris Agreement.

In 2016, Tuvalu adopted a framework for the monitoring and evaluation of its Master Plan for RE and EE. At the same time, SPC continues to update the Tuvalu Energy Security Country Profile. This Profile contains 36 energy security indicators that were adopted by Pacific Islands Energy Ministers to be used in monitoring the progress with the Framework for Action on Energy security in the Pacific (FAESP: 2010 – 2020). The Profile is structured so as to provide Highlights on energy supplies, transformation and consumption, report on progress according to the SDG-7 goals and on the national energy roadmap / NDC targets.

Tuvalu has carried out several projects under its Master Plan and has agreed to conduct an all-inclusive Dialogue on RE and EE which would include women, youth, private sector, civil society organizations, village councils, religious groups, politicians and government officials.

The PCREEE is mindful of Tuvalu’s special circumstances in terms of size and the many interested audience and stakeholder groups. The Dialogue will therefore be a whole-of-country consultative discussions and learning from Tuvalu’s pursuit of its energy and greenhouse gas emission targets.

With this backdrop the SPC Georesources and Energy Programme that comprises of PCREEE, Policy and Governance and Capacity, Data and Strategy Teams, PALS Project and PacTVET Project have collaborated to jointly convene the national dialogue.

1. **Introduction**

Tuvalu is one of the world’s least populated countries with a xxx % access to electricity and a low per capita emission of greenhouse gases (GHG). Tuvalu however recognizes the need to be responsible citizens and is committed to join the global community in reducing its GHG emission and enjoy the substantial co-benefits of reduced oil imports, improved energy security, improved local air quality, increased employment and investments and being a green tourism destination.

In 2012, Tuvalu adopted its Renewable Energy and Energy Efficiency Master Plan: 2012 – 2020 with the targets of 100% renewable energy by 2020 and increasing energy efficiency on Funafuti by 30%. In November 2015, Tuvalu submitted its first Nationally Determined Contribution with the following commitments:

* Tuvalu commits to reduction of emissions of greenhouse gases from the electricity generation (power) sector, by 100%, ie almost zero emissions by 2025.
* Tuvalu’s indicative quantified economy‐wide target for a reduction in total emissions of GHGs from the entire energy sector to 60% below 2010 levels by 2025.
* These emissions will be further reduced from the other key sectors, agriculture and waste, conditional upon the necessary technology and finance.

COP 24 agreed on a Paris Agreement “rulebook”, which is the operating manual needed for when the global deal enters into force in 2020. In preparation for 2020, Tuvalu would like to conduct a national dialogue focusing on its energy and GHG mitigation ambitions.

1. **Overview**

One of the many constraints to development is Tuvalu’s high dependency on imported energy resources, primarily petroleum products. Tuvalu has no conventional energy resources and is heavily reliant on imported oil fuels for transport, electricity generation and household use. High fuel prices and fluctuations have a destabilizing effect on businesses and households, limiting growth and reducing food security, especially in the most isolated outer islands.
Renewable energy resources such as solar, wind, biomass and ocean energy are recognized as potential energy alternatives in the country. In response to the world oil market and to ensure enhanced energy security, the Government of Tuvalu (GOT) is committed to get 100% of its electricity from renewable energy sources by 2020. The Tuvalu National Energy Policy (TNEP), formulated in 2009, and the Energy Strategic Action Plan defines and directs current and future energy developments so that Tuvalu can achieve the ambitious target of 100% RE for power generation by 2020. Tuvalu’s Master Plan for Renewable Energy and Energy Efficiency (TMPREEE), 2012-2020, outlines the way forward to generate electricity from renewable energy and to develop an energy efficiency programme.

According to TMPREE, Tuvalu must develop 6 MW renewable energy electricity
generation capacity in the next eight years. The initial capital cost of solar arrays, wind turbines and batteries to replace the current energy demand is estimated to be A$52 million.

By the end of 2012, the output capacity of renewable energy electricity generation using PV technology totaled a mere 146 kW (peak). There has been a steady increase in installations over the last three years and the country is tracking well in terms of meeting most of its target by 2020. The remaining time will be used to make any shortfall due to production efficiencies, weather conditions (that will affect available renewable resources) and other demands from the consumers.

Large scale implementation of energy efficiency improvements will also help reduce the electricity demand. Given the steady and continuing increase in the price of diesel oil, the renewable electricity and energy efficiency programme will not only be cost effective but will ensure that affordable electricity is available to the people of Tuvalu.

It is estimated that following the completion of the renewable electricity and energy efficiency programme, the use of the diesel generator plant will reduce by up to 95% with a consequent reduction in diesel fuel consumption. Savings in diesel fuel over the 30 year life of the overall programme are estimated to be A$152 million (2011 dollars) assuming oil prices continue to increase at the current long term trend. After allowing for battery replacements and other maintenance, which are estimated to cost A$115 million, the net saving over the 30 year programme will be A$37 million.

Whilst the focus in renewable energy has largely been the solar through PVs, Tuvalu is ready to embrace other technologies, for example harnessing ocean energy, once these become available and affordable.

In its pursuit to strengthen its energy sector policy framework, Tuvalu is finalizing the review and update of its National Energy Policy.

1. **Objective**

The objectives of the dialogue are to:

1. To discuss the current status of Tuvalu’s energy roadmap and GHG mitigation targets
2. To identify business, employment and other co-benefits arising from pursuing Tuvalu’s energy and GHG targets
3. To discuss and agree on key measures for accelerating progress on Tuvalu’s energy and GHG targets and how they could be financed
4. To discuss and agree on a whole-of-country approach to pursuing Tuvalu’s energy and GHG targets

1. **Expected Outcomes**
2. government’s awareness about the progress with the energy and GHG targets and their feasibility is improved
3. business, employment and other co-benefits of pursuing Tuvalu’s energy and GHG targets are identified for future mentoring
4. a roadmap for accelerating and financing Tuvalu’s energy and GHG targets is drafted and agreed upon
5. stakeholders’ role in pursuing Tuvalu’s energy and GHG targets are identified and agreed upon
6. **Target Outputs**
7. A national energy and GHG mitigation dialogue successfully delivered with associated resource materials.
8. Awareness about the key developments in the energy sector of Tuvalu.
9. Sharing of experiences and business management practices on the ground.
10. Partnerships within SPC and externally in advancing Tuvalu’s energy and GHG targets

1. **Dialogue Strategy & Content**

The dialogue will be for 3.5 days and it shall cover the following key areas:

**DAY 1: Introduction to Tuvalu’s energy and GHG targets**

This day will focus on introducing Tuvalu’s energy and GHG mitigation effort in the context of the global and regional developments relating to energy and GHG mitigation. Possible topics / sub-headings include:

1. The Sustainable Development Goals – particularly SDG 7, 9 & 13
2. Understanding the latest developments in the Paris Agreement and the outcomes of COP 24.
3. Understanding the Paris Agreement’s “rule book”.
4. Understanding the Financing Mechanisms for the Paris Agreement
5. Introducing the Framework for Resilient Development in the Pacific: 2017 – 2030 and its supporting mechanisms
6. Introducing the Framework for Action on Energy Security in the Pacific: 2010 – 2020 and its supporting mechanisms

**Day 2: Progress with the implementation of the Tuvalu Energy Policy & Master Plan**

This day will focus on highlighting the progress with the implementation of Tuvalu’s energy roadmap. Possible topics / sub-headings include:

1. How to measure the progress (according to the PA rulebook)?
2. Achievements to date
* Generating electricity with 100% renewable energy by 2020
* Increasing energy efficiency on Funafuti by 30%.
* reduction of emissions of greenhouse gases from the electricity generation (power) sector, by 100%, ie almost zero emissions by 2025.
* economy‐wide target for a reduction in total emissions of GHGs from the entire energy sector to 60% below 2010 levels by 2025.
* the power tariff
* local business and employment opportunities and the spin offs
1. Lessons learnt
2. Measures for addressing the challenges encountered
3. Future plans to meet goals and targets

**Day 3: Accelerating the progress with the energy and GHG mitigation targets**

1. The revised National Energy Policy
2. Opportunities for a Independent Power Producer and / or Public Private Partnerships?
3. Pacific Appliance Labelling and Standards – PALS
4. European Union Pacific Technical and Vocational Education and Training on Sustainable Energy and Climate Change Adaptation Project (EU PacTVET ) & ACSE Project
5. The PCREEE Sustainable Energy Research Fund (PSERF), PCREEE Renewable Energy & Energy Efficiency Innovative Competition (PREEEIC) and the PCREEE Sustainable Energy Entrepreneurship Facility (PSEEF).
6. Roles of the private sector – would an industry association help?
7. Roles for women and youths
8. Roles for churches and civil society
9. Roles for the Chamber of Commerce and the private sector as well as Financing Institutions such as national banks for loan schemes (This session will cover the government’s requirements for licensing new business, registration to be a member of the Chamber of Commerce and the Benefits to be an RE and EE accredited company - business Registration, compliance and Accreditation and loans available from financing institutions
10. Access to multilateral environment funding.
* a GCF Bi-lateral project on EE PALS
* a GCF bi-lateral project on EE in land transport
* a GCF bi-lateral project on circular economy / biogas
* a GEF regional proposal on Clean Tech Innovation
* GCF bi-lateral project on circular economy / biogasa regional proposal on PACTVET Phase 2

**Day 4: Site Visits to existing projects and potential project sites**

The site visits session will allow the participants and the private sector access to the existing projects to see, touch and experience them.

It is planned that a poster, essay and RE and EE model competition will be launched earlier and for the winners to be announced on the same week.

1. **Possible Partners**

The dialogue will be conducted as a partnership between PCREEE, PALS, PacTVET, SPREP, NDC Hub, the Tuvalu Electricity Corporation, Tuvalu’s Department of Climate Change, Tuvalu’s Chamber of Commerce, the Tuvalu Civil Society Forum(?) as well as the Ministry of Infrastructure, the local Chamber of Commerce as well as other arms of government.

1. **Complementarity and Replicability**

The dialogue is open to be integrated with other related events of partners.

The Dialogue is relevant to the work of the Pacific NDC Hub as well as to the GCF Accredited Entity role of SPREP and both will be approached to participate in the event.

1. **Budget** (based on 25 people, including 3 resources people)

|  |  |  |
| --- | --- | --- |
| **Cost Item** | **Estimate [AuD]** | **Comments** |
|  Travel  |  | Each project to cover their own travel  |
| Venue | 1000 |  |
| Catering  | 4000 | PCREEE |
| Schools Competition  | 2000 |  |
| Radio announcements & the media  | xxx |  |
|  |  |  |
| Others  | 2000 | PCREEE |

1. **Preparatory Works**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | **Preparatory Activity**  | **Identified Leader** | **Completion Date** | **Others** |
| 1 | Update on the Tuvalu RE and EE installations  | DoE & TEC | End of July |  |
| 3 | Tuvalu’s progress with the SAMOA Pathway & SDGs  | Tuvalu Planning Office & PCREEE | End of July |  |
| 4 | Update of the Tuvalu Energy Security Country Profile | SPC – Frank | End of July |  |
| 5 | Finalize Draft Tuvalu National Energy Policy | SPC – Koin  | End of July |  |
| 6  | Promotion of the schools competition | DoE |  |  |
| 6 | Media | SPC – Atishma Lal |  |  |

1. **Others**

For publicity purposes, there will be media releases at the beginning, during and after the event. Facebook and twitter will also be used too.

**END**