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

**Niue: 8 – 12 April 2019**

**Concept Note**

1. **Background**

The Pacific Centre for Renewable Energy and Energy Efficiency (PCREEE) was established in April 2017 as a regional vehicle for accelerating 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.

 At the third PCREEE Steering Committee meeting last year, the Secretariat showcased its joint training with the Global Green Growth Institute (GGGI) on Energy Entrepreneurship but with the youths as the target audience.

A number of PICs, including Niue, expressed interest in the training. The Niue Energy Roadmap and Strategic Plan emphasized the importance of educating stakeholders on RE and EE. On 15th January 2019, the Ministry of Infrastructure in Niue formally wrote to the PCREEE and requested PCREEE to conduct a training workshop on RE and EE in Niue for women, youth, private sector, civil society organizations, village councils, religious groups, politicians and government officials.

The PCREEE has looked at Niue’s request and given its special circumstances in terms of size and the many audience groups it wants covered, it is suggesting that the event be a national dialogue that would involve all the suggested stakeholders. The dialogue will be a whole-of-country consultative discussions and learning from Niue’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**

Niue is one of the world’s least populated countries with a 100% access to electricity and a low per capita emission of greenhouse gases (GHG). Niue 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 2015, Niue adopted the Niue Strategic Energy Road Map (NiSERM) 2015 – 2025 with the goal of “a sustainable energy sector for a Prosperous Niue”. In October 2016, Niue submitted its first Nationally Determined Contribution with its NiSERM target to achieve a 38% share of renewable energy of total electricity generation by 2020. (In 2014 the renewable energy share was 2% and this contribution assumes assistance to address critical grid stability issues). This will in part be delivered by a 10% reduction in residential, commercial and government electricity demand by 2020. This contribution will be maintained throughout to 2025 and will be delivered using national resources and international assistance being identified to achieve the goals of the NiSERM. Conditional upon additional international assistance, Niue could increase its contribution to an 80% share of renewable energy of total electricity generation, or to even higher levels, by 2025.

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, Niue would like to conduct a national dialogue focusing on its energy and GHG mitigation ambitions.

1. **Overview**

The Second National Communication of Niue in 2009 showed that the transport sector accounted for 57% of Niue’s GHG emission, 42% was from electricity generation while the remaining 1% was from the residential sector.

In 2014,Niue had excess diesel generating capacity: four diesel generator engines with a total installed capacity of 2084 kW. However, only two of these, with a capacity of 1026 kW (49%) were being regularly used, while the other 51% acted as reserve capacity.

The total installed solar PV capacity in Niue reached 343 kWp, with 150 kWh battery storage for smoothing purposes of voltage and frequency into the grid. This is equivalent to 14% of the total installed capacity.

The percentage of solar PV generation in total electricity generation was 1.99%, while 98.01%

was from diesel.

Though Niue has 343 kWp of solar PV installed capacity, there were only around 80 kWp of solar PV connected to the grid, due to grid instability considerations. The remaining 263 kWp of solar PV capacity were offline.

In January 2019, Niue completed the commission stage of its Tesla Battery Energy Storage System and PV. Project has now entered its Performance Monitoring Period and the BESS and PV have demonstrated it can carry Niue’s load for a few hours. This is an achievement and a major contribution to the NiSERM RE targets.

In terms of energy efficiency, around 1.27 million litres of diesel was imported into Niue, of which 75% was used for power generation. The remainder was mostly used for transportation. Around 1785 motor vehicles were registered: 31% cars, 24% vans, 23% light trucks and 21% motor vehicles and scooters.Electricity generation from fossil fuel use is highly subsidized with government providing a subsidy of NZD 0.63 per kWh. Billed electricity was recorded for three sectors: commercial (43%), residential (37%) and government (20%) respectively. In addition to this, Niue had unbilled consumption for street lighting and water pumping.The efficiency of fuel use for power generation has shown a decrease from 4.29 kWh/litre in 2009 to 3.77 kWh/litre in 2014.Energy consumption in the transport sector has steadily risen by 4% annual growth during the period 2011 to 2014. Majority of electrical appliances in Niue originate from New Zealand and the AS/NZS energy label is universally recognized. Most households use fluorescent lights and incandescent lights are used more than LEDs.

While data are not available for Niue, the average forced outage rate for power utility members of the Pacific Power Association (PPA) was 5.4%, as reported in the PPA/Pacific Region Infrastructure Facility power benchmarking study of 2012. In 2011, this was 8.3%.

In its pursuit to strengthen its energy sector legal framework, Niue is finalizing the review of the 1960 Electric Power Supply Act to expand the scope of coverage to include areas such as renewable energy, energy efficiency and appliance labelling and standards.

1. **Objective**

The objectives of the dialogue are to:

1. To discuss the current status of Niue’s energy roadmap and GHG mitigation targets
2. To identify business, employment and other co-benefits arising from pursuing Niue’s energy and GHG targets
3. To discuss and agree on key measures for accelerating progress on Niue’s energy and GHG targets and how they could be financed
4. To discuss and agree on a whole-of-country approach to pursuing Niue’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 Niue’s energy and GHG targets are identified for future mentoring
4. a roadmap for accelerating and financing Niue’s energy and GHG targets is drafted and agreed upon
5. stakeholders’ role in pursuing Niue’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 Niue.
9. Sharing of experiences and business management practices on the ground.
10. Partnerships within SPC and externally in advancing Niue’s energy and GHG targets

1. **Dialogue Strategy & Content**

The dialogue will be for 4 days and it shall cover the following key areas:

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

This day will focus on introducing Niue’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 NiSERM**

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

1. How to measure the progress (according to the PA rulebook)?
2. Achievements to date

Goal 1: Significant renewable energy integration to the grid

Goal 2: Improve energy efficiency in the electricity and transport sub-sectors

Goal 3: Reliable energy supply

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 Electric Power Supply and Energy Amendment Act 2018
2. Independent Power Producer and PPF?
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 )
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. The AREAN GEF6 proposal
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.

**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.

Side Event by Ministry of Education - displays of how students are incorporating Renewable Energy into the Curriculum such as posters, stories etc. Happy to discuss with the Schools as to the format of our participation. [Birtha W Lisimoni-Togahai, Director of Education, Department of Education, Ministry of Social Services Secretary-General for the Niue National Commission for UNESCO P O Box 32 ALOFI, NIUE birtha.togahai@mail.gov.nu, Tel: Work-+683-4145, Mob: +683-6990]

1. **Possible Partners**

The dialogue will be conducted as a partnership between PCREEE, PALS, PacTVET, SPREP, the Niue Power Corporation, Niue’s Department of Climate Change 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.

1. **Budget** (based on 25 people, including 4 resources people)

|  |  |  |
| --- | --- | --- |
| **Cost Item** | **Estimate [NZD]** | **Comments** |
|  Travel  |  | Each project to cover their own travel  |
| Venue |  | Provided by Niue government  |
| Equipment |  | Power Point Projector and screen |
| Catering  |  | To be cost shared, if possible |

1. **Preparatory Works**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | **Preparatory Activity**  | **Identified Leader** | **Completion Date** | **Others** |
| 1 | Update on the PA and the COP 21 | Niue CC Dept | March |  |
| 2 | Desktop review of the NiSERM | SPC and MoI | End of March |  |
| 3 | Niue’s progress with the SDGs  | Niue Planning Office |  | Should be available online |
| 4 |  |  |  |  |
| 5 |  |  |  |  |

**END**