**Summary Outcome of the Tonga Energy Sector Stakeholders and Joint Development Partners Meeting**

**Day 1: 3rd December, 2019**

**Puataukanave Hotel Conference Room, Vava’u, Kingdom of Tonga**

**Day 1 Theme:** Progress & Achievements of the Tonga Energy Road Map Targets

Session 2: TERM Overall Achievements to Date – Progress and Challenges

**1st Presenter**: *Dr Tevita Tukunga – Brief Overview on TERM and how it links to national, regional and international energy and Climate Change Mitigations Frameworks.*

**Recommendations:**

1. We have evidences Samoa have nationalized their Petroleum Supply and Distribution, which has great impacts on dropping energy prices in the countries. Cabinet in Tonga has already endorsed the Nationalization of Petroleum Supply and Distribution in 2019.

* *~~That Government, Development Partners, Oil Companies and Donors put together capable technical and financial efforts to reform nationalize/own the petroleum industry (downstream) in Tonga~~*

*Actions:*

1. *Government to focus and prioritize the reforms in the petroleum downstream supply in Tonga to be more efficient and cost effective by 2020*
2. *That Development Partners be requested to support the reforms*
3. GoT to ensure full technical review of the Petroleum Regulations to ensure appropriate technical standards, safety, storage, transportation and distribution.
4. While the whole World is moving towards fulfilling their commitments on NDC under Climate Change Agreement.

* *ThatGovernment, Development Partners and Private Sector continue to build partnerships on Policy, and Regulatory Reform as well as Installation of Least Cost Approach RE and EE hardware (Wor)*

1. *MEIDECCC to continue monitoring and reporting of 50% RE by 2020, 70% by 2030 and 100% by 2035*While there is great need for future transfer of new technologies [50%;70%;100%] to small islands countries like Tonga.

* That Government ensures education and training be an integral part of projects and programmes on Sustainable Energy

1. *That research and innovation on RE and EE technologies be promoted and enforced in Tonga, through including budget in development programme*

Sione Kava’s comment

* Nationalization come with its problem. Suggestion is for Government to negotiate and buy the facility from the fuel company.
* Tax compromised of approximately 55% of fuel cost.
* Cutting down of taxes can keep costs down.
* Outsource management and operation of the fuel tank to ensure supply meets demand, ensure security and safety.
* Excess profit (after payment of all expenses) is used to reduce petroleum price at an annual basis.
* Suggest to first conduct an assessment on the fuel farm before purchasing it.

Session 2: TERM Overall achievements to Date – Progress and Challenges (continued)

**2nd Presenter:** Mr. Ofa Sefana – Update on Rural Electrification Projects – both current and future energy’s project in pipeline Challenges & Recommendations.

*Key Lessons learnt*

* *That service quality is priority: reliable hardware, a responsible organization, sound finance for operation, maintenance and spares, and appropriate knowledges*
* *Design must fit needs: One size does not fit all*
* *That the solution must be attractive: Users, energy has to open better life opportunities and allow for possible activity.*
* *Institutional framework must function: The current institutional framework governing energy in Tonga must be upgraded to cope with development in the sector.*

*Recommendations:*

* *GoT to explore financial commitments from development partners for Awareness and Refresher training for users and operators in the outer islands due to changes in technology. Action: Approach Donors at the Donors roundtable meeting or bilateralGOT to continue providing advisory roles to community management setups*
* *Government to support the power of Community ownership of RE projects’ maintenance and sustainability.*
* *Government to continue associations with all sectors of the society and development partners*
* *Minutes of meeting and report be circulated to development partners*

*Request donors to share templates and guidelines of required information needed for funding*

**3rd Presenter**: Sela Bloomfield – Status of Tonga Energy Bill & legal views on TERM and related by-laws, Acts and Regulations that need to be in place. Status, Challenges & Opportunities.

Opportunities:

The development of the Energy Bill 2020 allows MEIDECC to:

* Establish policy oversight and ensure coherent strategic director for energy sector
* Review outdated laws/regulations, update laws to incorporate new issues such as incentives for private sector investment
* Consider existing responsibilities of different Ministries and consider how best to streamline functions under MEIDECC

Way forward

* Drafting instructions to be confirmed with MEIDECC/AGO
* Start to merge energy sector legislation into Energy Bill 2020
* First draft Energy Bill to be available early January 2020
* Consultations on Energy Bill 2020 to take place in March 2020

**4TH Presenter:** Johnny Lily’s - Outer Islands Renewable Energy Project

Challenges/Lessons Learned

* Phase 1:
  + Time required to develop the project with stakeholders. Mitigation = seek a bigger scope and start earlier.
* Phase 2:
  + Land related delays. Mitigation = start the land transfer process earlier or buy the land.
  + Sustainable O&M. Mitigation = better support, O&M contracts and early sign-ups.
  + Holes and ambiguities in the Tender Docs and Contract. Mitigation = plug the holes and repair the docs.
  + IA responsibilities and actions. Mitigation = Get them to stick to their obligations.
* Phase 3:
  + Material delivery delays. Mitigation = use less procurement packages but bigger. Also order the materials earlier.
* Phase 4:
  + Material procurement delays. Mitigation = use less procurement packages but bigger. Also order the materials earlier.

**KEY TAKEAWAYS FOR DAY 1**

1. The Progress on the TERM, in particular the pursuit of the 50% RE by 2020 target, is very satisfactory – thanks to all the development partners in particular ADB for being the largest donor in sustainable energy in Tonga

The key Phase 0 activity is the drafting and adoption of the Energy Bill and the kind assistance of the EU in picking up this key activity is acknowledged.

The Phase 1 activities included installations of proof-of-concept renewable energy and energy efficiency projects as well as the effective management of the petroleum supply and demand forces.

The Phase 2 activities are to involve further efficiency and renewable energy investments and will be initiated when all policy, legal and regulatory and institutional adjustments have taken place – building on the experiences from Phase 0 & 1.

2. A number of RE and EE projects have been installed, including:

Maama Mai

Mata ‘oe La’

Huelo ‘oe la’a

OIREP

TREP

Village network

TEC Concessionaire reset

Etc (to get complete list from TPL)

The RE penetration is now at about 11%, indications are that the target will be achieved by the end of 2020, thanks to a number of major donor-funded projects that are currently underway, including a 6 MW IPP solar farm, wind farms and battery storage. Network Losses have been reduced from 18% to 10%.

3. The government’s and Tonga Power’s effort to keep the power tariff more affordable through managing the rising fuel costs is gratefully acknowledged.

4. The gains that Tonga can achieve from its renewable energy developments can be easily lost through increases in fuel prices. The pursuit of the means to lower fuel prices, through the Tank Farm and MR tanker projects should be actively pursued by 2020 hand-in-hand with the renewable energy targets during Phase 1 and in Phase 2 when the Energy Bill has been enacted.

5. The focus of the TERM to date has been based on decarbonizing the electricity sector which only account for approximately 25% of Tonga’s fossil fuel consumption. There is a need to include the non-electricity sectors during Phase 2 and during the TERM Plus: 2020 – 2030 if the 70% RE by 2030 is to be achieved. This would include addressing the fossil fuel consumption in the transport sector and exploring alternatives to electricity consumption in cooling and water heating.

6. There is a draft TOR for TERM Plus: 2020 – 2030 submitted to the EU Delegation for evaluation and finalisation by 2020. The TERM Plus (2020 - 2030) is a more comprehensive document with a clearly identified investment plan and costings on how to achieve the target with its associated socio-economic costs and benefits. This should include clear investments and activities on addressing Tonga petroleum supply and demand logistics and costs.

Private Sector

Lack of capacity building and training participation from private sector to REEE courses. Lack of practical courses offered. Formalise ‘bush’ electicians.

NGOs

Need for more awareness programs in communities on REEE and main documents such as TERM to be distributed. Need for documents be translated into the Venacular. Need for government to persist exploring cheaper source of energy for vulnerable communities. Need to explore energy efficient appliances.

Recommendation;

* That MEIDECC consider issues highlighted by Private Sector and NGOs
* TEC to deal with licensing issues

**KEY TAKEAWAYS FOR DAY 2**

1. Though the PCREEE is focusing on the private sector, there is a limit to what it can contribute to the TERM given it a not a donor and the regional coverage of its service delivery.

2. The PCREEE cannot directly contribute to the 50% RE target by way of funding hardware projects on the ground. It can however assist in fund raising and providing TA in areas not covered by other partners and where it can more quickly respond to requests for assistance. TA to the TEC on its Concession Contract review is an example.

3. Having accredited national qualifications on RE and EE, that is also recognized in NZ and Aust is very important for Tonga and the region. The short period of remaining time before the end of the PacTVET project is noted and the PCREEE should work together with countries to look for resources to complete this very important project.

4. Partnerships is crucial for the operations and life of the PCREEE. The ISA is a new agency where Tonga is in its Executive Board as co-chair of its Assembly. PCREEE should pursue formalizing this relationship and have joint programmes and implementation, with the support of Tonga.

5. The PCREEE have made good progress on its first 3 years of operation, however, there is a need to focus more on outcomes and impacts rather than outputs only.

General observations from comments

* Need for stakeholders to know who is the energy focal point in respective entities for efficient sharing of updated information and justified data
* Government’s willingness to assist PCREEE to speed up procedures to formalize participation to decision making bodies that opens opportunities for Tonga and the region instead of our proposals being rejected for assistance
* Formulate robust projects that are worthy, sustainable and
* Need for a collective regional approach that is holistic to strengthen implementation. Do not reinvent the wheels but ask for assistance from countries that have experience in certain projects. Share results of studies, lists of available TAs, lessons learnt to flag out risks and minimize expenses etc
* Need for main documents to be translated into the vernacular or local language for wide understanding of basic vision and direction of national plans for relevance etc
* Dilemma of training and building capacity versus brain drain and high turnover
* Need to raise public awareness to offer options for people to make informed decision as customers eg buying more sustainable appliance instead of cheaper but not durable energy related appliances and items. How to regulate this? EU’s Rule of Origin
* Importance to initiate long legal procedures early in the programme to effectively guide implementation.
* Need to formalize trainings through national institutions for accreditation and qualifications that allow local skills to develop in the formal education channel for job opportunities
* How to balance safety, sustainability, efficiency and cheap and keeping risks and wastage under control
* Need for capacity building on preparation of competitive biddings, perhaps a regional consortium
* Need to empower private sectors and NGOs to effectively contribute to national targets
* Need of technicians for outer island effort
* Need to incorporate RE & EE into school curriculum from primary school

**KEY TAKEAWAYS FOR DAY 3**

1. The funding opportunities under GCF can be affected with the withdrawal of US from the Paris Agreement. However, bilateral engagements with development partners should be persued for project development
2. It is important to note that major RE projects can be financed and implemented directly through private sector investment rather than continuously relying on donor support. The 6MW battery storage in Tonga is a good example of 100% private sector investment. Similar investment opportunities should be explored to support achieving the TERM RE targets.
3. The Biogas proposal for Tonga needs careful consideration and strong due diligence checks before implementation as previous biomass projects in the Pacific (eg. Fiji) has failed. Not a one size fits all. What has worked in other countries may not necessarily work in Tonga
4. The downstream petroleum sector in Tonga requires urgent reform to immediately realize efficiency in the supply chain and cost effectiveness in pricing. GoT needs to acquire and own the fuel facility. The overall outcome should be on nationalizing the fuel industry in Tonga but the process of doing it should be thought out well.

**Donor Roundtable Discussions**

1. ADB is by far the largest contributor to Sustainable Energy (SE) development in Tonga. Other development partners including European Union, World Bank, Australia, New Zealand, UAE are also contributing to SE development in Tonga
2. ADB has indicated its support towards the following:
   1. Reforming the downstream petroleum sector in Tonga including strengthening the regulation of petroleum in terms of reliability of supply and safety standards in transportation, distribution and retailing.
   2. Policy and Regulatory reforms in energy to encourage private sector participation including least cost approach to RE&EE hardware
   3. Capacity building, education and training on sustainable energy through formal and informal education systems including targeted community trainings for users and operators of RE systems.
   4. Strengthen the power of community ownership on RE projects and in effect ensures sustainable management and maintenance of community energy systems
3. European Union (EU)has indicated its supports towards the following:
   1. Finalizing the Tonga Energy Bills and
   2. Tonga Energy Sector Stakeholders Meeting
4. Other development partners have indicated a proper meeting minutes containing clear recommendations and priority needs for support to be submitted to them for review and confirmation of areas of financial support.