Pacific Energy Conference 2016

Auckland, New Zealand

7 June 2016

The Pacific Energy Conference, co-hosted by New Zealand and the European Union (EU), was held in Auckland, New Zealand on 7 June 2016. The Conference was attended by Heads of Government, Ministers responsible for energy, energy utilities and representatives from the Cook Islands, Federated States of Micronesia, the Republic of Fiji, French Polynesia, the Republic of Kiribati, Nauru, New Caledonia, Niue, the Republic of Papua New Guinea, Pitcairn, the Republic of the Marshall Islands, Samoa, Solomon Islands, Tokelau, Tonga, Tuvalu, Vanuatu, and Wallis and Futuna. Development partners and national, regional and multilateral organisations and the private sector were also represented.

Since the 2013 Summit, the Pacific has made significant progress implementing efficient, clean and affordable renewable energy initiatives - more than 70 projects have been completed or are underway. Participants recognised the while Polynesia was advancing renewable energy, more needs to be done to lift energy access rates in Melanesia to underpin sustainable economic development. Participants also recognised that since the 2013 Summit, the Pacific and other Small Island Developing States had called for further actions on sustainable energy and climate change under the SIDS Accelerated Modalities of Action (S.A.M.O.A.) Pathway and that the United Nations General Assembly declared 2014-2024 the Decade of Action on Sustainable Energy for All.

Ambition of the Conference

The ambition is to build on the momentum for sustainable energy in the Pacific through **investing more than $1 billion by 2024** to see:

- **Renewable electricity in Polynesia rising to 50% or higher -** saving more than 20 million litres of diesel and 60,000 tonnes of CO2 emissions annually;
- **Accelerating access to sustainable energy in Melanesia** - benefitting more than one million people; and
- **Solutions for small islands being applied in Micronesia and elsewhere** to more than double renewable energy levels and put countries onto a sustainable energy pathway.

The Conference also recognised that **sustainable energy responds to climate change** by reducing emissions from fossil fuels, improving resilience and contributing to mitigation pledges under the Paris Agreement. Improving access to climate finance would provide additional support for countries renewable energy goals.

With around half of fossil fuel use in the region being used for transportation, further attention is required to develop and implement **sustainable transport solutions**, building on the progress being made in the electricity sector.

The nexus between energy and rural development and lifting incomes also requires attention to be paid **sustainable agriculture**. Energy access underpins economic development, which in Melanesia is reliant on improving economic returns from agriculture and fisheries.

Actions to support 50% renewable electricity in Polynesia

The focus of the 2013 Summit was on moving the Pacific closer to 50% renewable electricity, with most projects and partnerships concentrating on **Polynesia**[1]. While most countries have made significant progress, there is a gap between the renewable energy aspirations of governments and the ability of public funds to invest in both stronger and more resilient networks and renewable energy generation.

More needs to be done to develop long term electricity system development plans that identify least-cost renewable generation resources and complementary network upgrades, including any storage requirements, to support higher levels of renewable energy. Regulatory reform will also be required in some countries to increase private sector investment.

To increase the penetration of **renewable electricity in Polynesia to 50% or higher** will require:

- **Governments** to put in place or enhance policies and sector planning, including regulatory reforms that enable private sector investment;
- **Electricity Utilities** to plan, invest and manage networks to enable higher levels of renewable energy integration, and setting out clear requirements for contracting private sector generation;
- **Public investment and partnerships** to support building the capability of regulators and utilities to strengthen and manage networks to integrate higher levels of renewables; and
- **Private investment** to develop renewable generation resources where they are technically and economically feasible.

If all of the projects presented at the conference were supported, renewable energy could increase to over 50% by 2024 with a saving of 20 million litres of diesel and 60,000 tonnes of carbon dioxide emissions.

[1] Samoa, Tonga, Cook Islands, Tuvalu, Tokelau, Niue

Actions to accelerate energy access in Melanesia

Providing access to sustainable energy for the more than eight million people living in **Melanesia**[2] is a huge challenge, with electricity access rates averaging 20% or less. While more than 100,000 people in Melanesia will have access to electricity for the first time as a result of the 2013 Summit we need to lift our sights and our game on this issue. Aiming to accelerate access will mean more than a million people benefit from access to modern energy services for lighting and communication.

While development of large scale generation and transmission networks can provide low per unit costs and high levels of service for urban and industrial centres, increasing access will also require looking at replicable models for using local renewable resources for community micro- and mini-grids and standalone solar household systems.

To provide sustainable energy access for more than a million people in Melanesia will require:

- **Governments and Electricity Utilities** to develop a coherent long term electricity system development plan that identifies least-cost generation resources, transmission corridors and links to demand to provide the highest level of service and reliability to support economic development;
- **Governments** to put in place or enhance policies and sector planning, including regulatory reforms that enable private sector investment;
- Developing **strategies for rural electrification** to extend access to off-grid communities;
- **public and private investment** to expand generation, transmission and distribution networks;
- **Innovative and replicable models** for financing and operating community level hydropower or solar PV/diesel hybrid-energy initiatives, especially for off-grid and remote locations; and
- Developing **private sector supply chains** to provide affordable and/or subsidised solar PV household systems to provide energy efficient lighting, cell phone charging and, depending on the size of the system, a low power appliance such as a small fridge.

Investment by public and private sources could double sustainable energy access rates for Melanesia by 2024 benefitting more than one million people through a combination of large scale infrastructure projects and programmes at the community and household level.

[2] Papua New Guinea, Solomon Islands, Vanuatu and Fiji, although Fiji's energy profile is more similar to countries in Polynesia with high levels of access and renewable energy.

Solutions for small islands in Micronesia and elsewhere

Experience over the last five years, especially in Tokelau, Cook Islands and Tuvalu has identified models and lessons that can be provide solutions for small islands and dispersed populations in **Micronesia**[3] as well as other islands where progress has been slower. On average, countries in Micronesia have less than 5% renewable energy and doubling renewable energy by 2024 would represent significant progress. Access rates are also a challenge for some countries and states.

To double renewable energy in Micronesia and other small islands will require:

- **Governments** to put in place or enhance policies and sector planning;
- **Electricity Utilities** to plan, invest and manage networks to enable renewable energy integration, and setting out clear requirements for integrating any private sector generation;
- **Public investment and partnerships** to support building the capability of utilities to integrate and develop renewable generation options in networks; and
- **Public and private partnerships** for energy access programmes for remote populations.

Investment to realise the Conference Ambition

Donors and development partners announced more than $1 billion to realise the Conference ambition for sustainable energy in the Pacific, **in addition to the $900 million committed to date for more than 70 projects** under the first phase of country leadership and partnerships catalysed by the commitments made at the Pacific Energy Summit in 2013. The Conference also noted that:

- with commitment by countries and utilities, and support from financial institutions, significant **private sector investment** could also be realised; and
- **Improving access to climate finance** could provide additional means to support renewable energy and mitigate climate change.

Commitments to support the ambition

Development partners announced their support for the ambition of the Conference, including:

- From 2009-16 the **Australian Government** has invested over AUD41 million in energy projects across the Pacific. These have improved national level energy sector planning and enabled implementation of energy efficiency activities. Our investments in renewables including, solar and hydropower projects, have enhanced regional resilience to the destabilising impacts of fuel price shocks. Highlights of recent investments include:

[3] Palau, Federated States of Micronesia, Republic of the Marshall Islands and Kiribati

- AUD3.2 million towards the Grid Connected Solar PV Project in Kiribati, which is estimated to reduce reliance on diesel fuel by approximately 230,000 Litres per year
- AUD4.74 million towards Electricity Supply Security and Sustainability Project in Nauru, increasing energy efficiency by 20 per cent, and
- AUD9 million towards the Power Sector Expansion Project in Samoa, providing sustainable and reliable electricity services to all consumers at affordable prices.

- The **Asian Development Bank** plans to invest USD303 million in renewable energy and energy efficiency between 2016 and 2019 to support the development plans of our Pacific Island developing member countries. The proposed investments will be for 13 projects across 9 countries. Projects will include hydropower plants, solar power plants, energy access and energy efficiency investments (supply side and demand side). Support will be a combination of concessional loans, Asian Development Fund grants for eligible countries, and external co-financing. This forward pipeline continues our strong support for the Pacific energy sector which includes an existing portfolio of 14 renewable and energy efficiency projects valued at USD352 million currently being implemented in 8 countries.
- The **European Union** (EU) pledge of EUR25 million made at the Pacific Energy Conference in 2013 has been entirely mobilised –and far exceeded. Indeed, about EUR43 million have been invested in renewable energy programmes since 2013 in the Pacific region and more specifically in Cook Islands, Kiribati, Nauru, Samoa, Tonga, Tuvalu and Vanuatu. In addition, the 11th European Development Fund (EDF) came into force in 2014, bringing in an additional EUR39 million to the sustainable energy sector in the region. In the context of the 2016 Pacific Energy Conference the EU will mobilise an additional financial envelope of EUR20 million in grants, specifically designed to leverage additional capital from the private sector, European and/or international finance institutions. A portion of this EUR102 million package will be implemented through budget support operation to support Energy Sector reform programmes, which remain the EU's preferred modality for sector interventions in the Pacific. This is expected to assist in the delivery of policy reforms, as well as the delivery of sustainable energy services, particularly in underserved rural areas and outer islands.
- The **European Investment Bank** (EIB) plans to increase its focus on climate action in the Pacific region, including the development of renewable energy projects. EIB is currently appraising and implementing projects in a number of PICs, including Tonga (Nuku'alofa Network Upgrading Project), Fiji (TA support for development of a HPP and associated transmission system), and in early discussions on financing a number of small- and medium-scale projects in Vanuatu. EIB is also considering a possible operation for the Tina River HPP for which EIB had provided EUR1 million in favour of upstream preparation in 2012.
- **Japan International Cooperation Agency** (JICA) is implementing the ODA loan of JPY8,340 million for "Ramu Transmission System Reinforcement Project" (PNG)

and the ODA grant aid of JPY1,193 million for "the Project for Power Sector Improvement for the State of Kosrae" (FSM) under the commitment of the Government of Japan. In addition, as one of Japan's cooperation package under the "Fukushima Iwaki Declaration" at PALM7 (the 7th Pacific Islands Leaders Meeting) in 2015, JICA is launching "Hybrid Island Program" for the reduction of fossil fuels consumption with the aim of improving energy security of Pacific Islands and contributing to reduction of greenhouse gases. In the Program, JICA is going to implement the 5 years regional technical cooperation for the hybrid power generation system for Fiji, Kiribati, Tuvalu, FSM and Marshall Islands, as well as the power sector master plan study for Palau. Approximately JPY700 million will be allocated for those technical cooperations. Besides, JICA will implement preparatory survey for the wind power project in Tonga and solar power project in Marshall Islands (Ebeye Island). In the planning and implementation of those cooperations, JICA promotes Japan's technology and expertise in proper operation and maintenance of hybrid grid system, particularly those evolved in Okinawa, which has geographical and climate similarities to Pacific islands.

- In 2013 **New Zealand** committed $65 million for 18 projects in six countries. By 2016 New Zealand had exceeded its original commitment with approximately $120 million over 25 projects in eight countries. New Zealand projects included large scale investments in renewable energy infrastructure in Samoa, Cook Islands and Tuvalu and capacity building, policy and regulatory guidance to underpin progress towards renewable energy targets. New Zealand developed partnerships with countries and donors to leverage new activities, improve coordination and broaden support to other Pacific countries. Building on this, New Zealand will commit $100 million for the next phase of investment to support projects in at least nine countries. New Zealand will continue to seek partnership opportunities and focus on new innovative models that result in tangible actions and continue to accelerate the Pacific's transition to a renewable energy future.
- For the **United Arab Emirates** (UAE), and its renewable energy vehicle, Masdar, 2013 marked a turning point in our engagement with the Pacific. In Auckland, we announced a $50 million grant fund, the UAE-Pacific Partnership Fund, an initiative of our foreign minister, His Highness Sheikh Abdullah bin Zayed Al Nahyan, to rapidly scale up deployment of renewable energy across the region. Since 2013, under the Fund, we have commissioned diverse and highly impactful renewable energy projects in 11 different Pacific island countries, which have resulted in the deployment of 6.5 megawatts of renewable energy capacity that will displace an estimated 3.2 million litres of diesel fuel and avoid emissions of up to 8,400 tonnes of CO_2 every year. Our involvement in the Pacific will not come to an end with the completion of these projects. In consultation with governments and regional partners, the UAE through Masdar will support a capacity-building programme in the Pacific for renewable energy. The programme will contribute to all Pacific island countries' renewable energy ambitions and cover a range of topics that support and enhance the deployment of effective and commercially viable renewable energy.

- The **World Bank Group** (WBG) in the Pacific has trebled total investments, technical assistance and advisory services in the energy sector from USD25 million to USD80 million, exceeding its 2013 commitment target by USD30 million. Building on the engagement across more than 8 countries in the region, the WBG has programmed a further USD$340 million to significantly increase access to reliable and sustainable energy. Current and planned Bank support is provided through the International Development Association (IDA) and the International Bank for Reconstruction and Development (IBRD), the Global Environment Facility (GEF), the Pacific Region Infrastructure Facility (PRIF), and other multi-donor trust-funds administered by the World Bank Group such as ASTAE, ESMAP, GPOBA, PPIAF, and SREP. The WBG has projects planned to support expansion of transmission and distribution networks, development of micro- and mini-grids in remote and off-grid locations, identification of least-cost generation resources, and development of private sector supply chains.
- The WBG, through the **International Financial Corporation** (IFC), has continued its commitment to enabling private sector investment and innovative partnerships in the energy sector across the Pacific. IFC is now pursuing interventions from early stage project development risk participation to equity and debt financing of private sector participation, directly through innovative support mechanisms or credit enhancement to financial intermediaries. IFC is currently aiming to directly facilitate and mobilise in excess of USD500 million of private sector investments in the energy sector along with an equally important role of opening up our Pacific markets to new opportunities via IFC's advisory services (and the support of development partners, Australia and NZ).

Regional initiatives and side-events

Pacific regional organisations including the Pacific Island Forum Secretariat (PIFS), the Secretariat of the Pacific Community (SPC) and South Pacific Regional Environment Programme (SPREP) have a clear role to play in supporting the sustainable energy and climate goals of the Pacific, consistent with their respective roles and responsibilities. The establishment of the Green Climate Fund (GCF) also provides a potential new source of support to respond to climate change, including the deployment of renewable energy.

In the margins of the Conference, four side-events were organized to encourage further dialogue and engagement on regional energy and climate change issues. The side-events included:

- SPC and the Government of Tonga held a workshop on "Supporting the Implementation of the Pacific Islands Indicative Nationally Determined Contributions" (INDCs). Key messages from the workshop are attached with the full summary record available online.
- PIFS convened a workshop for GCF accredited entities, including SPREP, UNDP and multilateral development banks operating in the Pacific to discuss and exchange views on the experience to date with developing GCF project applications and current 'readiness' support being provided to Pacific Islands governments.

- The Pacific Regional Infrastructure Facility (PRIF) held an energy sector working group meeting where PRIF partners (ADB, Australia, European Union, EIB, JICA, New Zealand and WBG) provided an update to Pacific Island representatives on current donor supported energy sector projects and technical assistance.
- New Zealand Trade and Enterprise hosted a private sector roundtable with selected Pacific Island representatives to follow up in more detail on the investment opportunities presented at the Conference by countries.

Summary record of the Tonga – SPC Side Event
On
Supporting the Implementation of the Pacific Islands' INDCs

Pullman Hotel, Corner Princess Street and Waterloo Quadrant, Auckland

Monday, 6th June 2016 (09:00 – 12:30)

KEY MESSAGES AND OUTCOMES

i). PICs must remain ambitious with their NDC targets under the Paris Agreement.

ii). UNFCCC Secretariat to work closely with PIC parties and regional agencies such as SPREP and SPC to expedite the participation and implementation of its National Readiness Initiative for Implementation of the Paris Agreement in the PICs.

iii). Legislative reforms in the energy sector is a must in order to support the implementation of the NDC targets. Development Partners support is urgently needed in this area.

iv). The value of developing credible whole of sector plans such as "energy road maps" and structures to improve energy security, reduce dependency on fossil fuel for electricity generation and improve access to electricity remains, however, Energy Roadmaps must be continuously reviewed and should remain consistent with, and supportive of, the ambitions expressed in the NDCs.

v). Supported the development of a regional Green Climate Fund proposal, based on the Pacific Appliance Labelling and Standards Programme and the Pacific Efficient Lighting Strategy, with UNEP, SPC – including the newly Pacific Regional Centre for Renewable Energy and Energy Efficiency to be the implementing agencies.

vi). Supported the EU PacTVET model of joint project management by SPC and EU and recommended increasing support to developing accredited energy training standards and strengthening the compliance and accreditation of local training institutes.

vii). Invited development partner support to, and collaborations in, the operations of the private sector-focused Pacific Centre for Renewable Energy and Energy Efficiency (PCREEE) in Tonga, as a key regional driver of the implementation of the energy targets in the NDCs.

viii). Called on development partner support to the on-going refinement and updating of the Pacific Regional Data Repository (PRDR) at both the national and regional levels.