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Bula everyone

We all welcome the beginning of a new year, but this year it is more than just a change of number; it is the beginning of a crucial era for the global community.

In its wisdom, the United Nations’ General Assembly has declared 2014–2024 the decade of Sustainable Energy for All (SE4ALL). It is a declaration to draw global attention to the UN Secretary General’s initiative aimed at mobilising action from governments, the private sector, and civil society around three objectives, all to be reached by 2030.

1. Ensure universal access to modern energy services
2. Double the rate of improvement in energy efficiency
3. Double the share of renewable energy in the global energy mix

It is a declaration that recognises that eradicating extreme poverty from the planet will not be possible without a major transformation in the energy sector. Living healthy lives, providing good quality education and lifelong learning, empowering girls and women, food security and good nutrition, and achieving universal access to water and sanitation – all these can be only a dream unless we have sustainable energy. I am reminded of the keynote address at the Pacific Roll-out of the International Year of SE4All (2012), in which His Excellency Ratu Epeli Nailatikau, President of the Republic of Fiji, stressed that the provision of a regular energy supply is critical for our very existence and has become a defining issue of this century.

‘The situation is no longer confined solely to an energy security situation; rather it poses as an imminent threat to the security of our economy, our livelihood and our sovereignty as a nation,’ the President said.

He continued, ‘The International Year of Sustainable Energy for All is, therefore, an opportunity for the region to take seriously the Forum Leaders’ vision for an energy-secure Pacific and join the world community in pursuing the three UN objectives to be achieved by 2030.’

The decade of SE4All has opened with a bang in the Pacific region. With the assistance of the Secretariat of the Pacific Community, the 2007 National Energy Policy of Solomon Islands has been reviewed and new strategies and investment plans are in the final stages of being adopted by their government. In Nauru, collaboration between the Deutsche Gesellschaft für Technische Zusammenarbeit (GIZ), the International Renewable Energy Agency (IRENA) and SPC has resulted in the production of the PWIYEIY BWIO – LIGHT UP MY LAND, the Nauru Energy Road Map 2014–2020, which is now presented for government’s adoption. Further north, SPC assisted Marshall Islands with the review of its 2009 National Energy Policy and Strategic Action Plan. And at the other end of an island-hopping trip in Micronesia, high level consultations on a draft legal framework for the administration of Palau’s energy sector were conducted.

In 2011, Forum Leaders agreed on 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. It is pleasing to note the concrete steps taken by Pacific Island countries and territories (PICTs) at the start of the decade of SE4ALL to introduce game-changing national energy policies, legislation, roadmaps and action plans.

In other developments, SPC is working collaboratively with the Ministry for Social Welfare, Women and Poverty Alleviation to introduce cleaner cooking stoves in many of its rural communities. This is part of the SPC’s Cooking for Life initiative, in which cleaner lights and cooking stoves are also introduced in Kiribati. By the same token, SPC’s plan to introduce low-cost, clean electricity to one million people in Melanesia is taking another step forward with the arrival of Australian-funded supplies in Australia.

It is certainly going to be an exciting decade for the Pacific Islands and we are not even halfway through 2014. Preparations are well under way for the joint regional meeting of officials and ministers of energy and transport to be held in April. SPC is proud to host this key event for the second time since the establishment of the Economic Development Division in 2010. It demonstrates that accountability to member countries and donors alike is at the heart of SPC’s youngest division. Judging by the requests for parallel events and the full energy sector get-together in the week before and the week after the meeting, it is certainly an event not to be missed. I look forward to seeing you all in Nadi, Fiji, in April.

Best wishes,
Solomone Fifita
LEADERSHIP, GOVERNANCE, COORDINATION AND PARTNERSHIPS

Energy is a critical issue in the Pacific region

The manner in which energy is produced, sourced and supplied to businesses and consumers in Pacific Island countries is critical for economic and social development in all sectors of the economy.

Ministers at the 2013 Forum Economic Ministers’ Meeting in Nuku’alofa, Tonga, noted the importance of reducing the costs of energy to assist with the economic and social development objectives of Forum Island countries (FICs). They agreed to: (a) prioritise the development of effective and efficient renewable energy solutions and promote energy efficiency; and (b) to prioritise increased access to energy.

Energy is crucial to support the overall operation and development of all FIC economies and the achievement of the Millennium Development Goals. However, the geographical isolation of FICs from major suppliers of fossil fuels means that they sit at the end of the supply chain, forcing higher prices.

In addition, the region’s heavy dependence on imported fossil fuels raises their vulnerability to oil price increases and shocks, as well as to greater macroeconomic risk and reduced fiscal stability. The generally high cost of fuel in FICs also has flow-on effects on the cost of electricity supplied by utilities, transportation facilities and other services.

The commitment by the ministers to prioritise and promote the development of energy efficiency and renewable energy solutions is timely, as it adds to the outcomes of earlier meetings in 2013, such as the Pacific Leaders’ Energy Summit and the Pacific Energy Summit. Furthermore, this direction complements the projects for sustainable energy that FICs are currently committing themselves to in taking the broader global initiative to the next level. Although commitments have been made by FICs to prioritise these projects, having the political will at all levels to advance the work needs to be emphasised, as well as being supported by financial resources. In addition, the progress of these initiatives requires the participation of all sectors of society, particularly the communities in remote areas that are often most likely to benefit.

As part of the Majuro Declaration for Climate Leadership, endorsed by Leaders at the 2013 Forum Leaders’ meeting, a set of renewable energy, energy efficiency and energy access targets or actions for FICs has been created. Whilst these initiatives aim to reduce the cost of energy and make energy more accessible in FICs, the issue of climate change is also addressed by using less fossil fuel and refocusing FICs’ futures on a low-carbon development path.

Given the limited financial resources that FICs hold, the energy targets that have been set may not be achieved without the support of development partners. Progress towards these targets will require collaboration amongst development partners, regional agencies and member countries. In particular, these countries will require funding support to ensure these planned activities move forward. Once such source of support is the Government of Japan that is supporting renewable energy projects through the Pacific Environment Community Fund.

The Forum Secretariat, working with other CROP agencies, supports the regional approach of the Framework for action on energy security in the Pacific through its ability to convene key regional meetings such as the Leaders’ Post-Forum Dialogue, the PIC partners’ meeting, the Pacific Regional Infrastructure Facility working groups, and direct discussions with development partners.
Marshall Islands’ energy future focusses on ‘Energy for All’

The RMI Ministry of Resources and Development and the Economic Development Division (EDD) of the Secretariat of the Pacific Community is currently conducting a review of RMI’s National Energy Policy and Energy Action Plan.

As part of the review process, a three-day consultative workshop was convened in Majuro on 21–23 January. The workshop was opened by the Chief Secretary to Cabinet, Mr Carten Nemra, and was attended by 40 participants from government ministries, state-owned enterprises and local non-government organisations.

The 2009 Marshall Islands’ National Energy Policy and Energy Action Plan has four broad goals: (i) electrification of 100% of urban households and 95% of rural outer atoll households by 2015; (ii) the provision of 20% of energy through indigenous renewable resources by 2020; (iii) improved efficiency of energy use in 50% of households and businesses and 75% of government buildings by 2020; and (iv) a 20% efficiency improvement in transportation sector fuel use by 2020.

The review acknowledged the significant achievements made in the last four years, particularly in terms of access to electricity, political support, public awareness and local collaborations through the Energy Task Force.

The review also noted that certain areas need to be strengthened in terms of the local coordination of the sector, addressing energy efficiency in the transport sector and in terms of building local capacity and expertise. The absence of enabling legislation and incentives was identified as one of the key barriers to the advancement of RMI’s energy sector.

While RMI’s 2009 National Energy Policy was put in place immediately after its declared state of economic emergency in 2008, the government is aware that 2014 is the beginning of the UN’s declared decade of Sustainable Energy for All (SE4ALL) with its global goals to be achieved in 2030 of:

i) universal access to modern energy services;
ii) double the rate of improvement in energy efficiency;
iii) double the share of renewable energy in the global energy mix;

The Secretary of the Ministry of Resources and Development, Ms Rebecca Lorennij, referred to this in her closing remarks: ‘It is pleasing to note that participants unanimously agreed that ‘Energy for All’ should be the Energy sector’s vision for 2014–2020. It fits in well with the UN’s SE4ALL initiative. I wish to acknowledge the participation of all the local agencies in this review. The usefulness of this document will depend not only on your inputs but also on your buy-in to its implementation.’

Energy Policy Officer at EDD, MS Koin Etuati, in her remarks at the workshop, highlighted the important role the Energy Programme plays in assisting member countries to strengthen their capacity to effectively manage their energy sector.

‘It is important for member countries to have a clear and comprehensive plan for their energy sector and we assist by reviewing national energy policies and plans, and training local staff, as well as putting in place a monitoring and evaluation framework, where progress and effectiveness in delivery can be regularly assessed. We are in the process of finalising similar exercises in Nauru and Solomon Islands and are glad to have started on RMI’s plan,’ she said.

In September 2013, the Republic of the Marshall Islands (RMI) hosted the annual Summit of Forum Leaders and spearheaded the adoption of the Majuro Declaration on Climate Leadership. The Declaration contains the renewable energy and energy efficiency targets adopted by Pacific Island governments.

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Financial incentives for the energy sector in Pacific Island countries

A financial incentive, as defined in a business dictionary, is: ‘a monetary benefit offered to consumers, employees and organisations to encourage behaviour or actions which otherwise would not take place.’

A financial incentive motivates actions which otherwise might not occur without the monetary benefit. Financial incentives are one of the ways governments try to support the production or consumption of energy. Generally, these incentives are given to consumers to encourage the demand for energy efficient products and services (consumer subsidies) and to energy producers to encourage the supply of energy products or services (producer subsidies). For instance, governments often give tax rebates on energy efficient products to consumers to encourage the purchase of energy efficient appliances or duty exemptions on diesel for power generation.

Fiscal incentives are passed through legislature or parliaments and, in most cases, are regulated under legislation. Such fiscal incentives are effective since they give consumers and producers legal assurance of receiving these subsidies. Financial incentives for the energy sector currently applied in some Pacific Island countries (PICs) include indirect and direct subsidies such as tax allowance or reduction, import duty exemptions, freight rebates, lifelines tariff, and cash grants or soft loans. Fuel pricing control for specific petroleum products is also applied in some PICs. The table below summarises the financial incentives applied to the petroleum, electricity, renewable energy and energy efficiency sub sectors in 14 PICs.
Table 1: Financial incentives applied to the petroleum, electricity, renewable energy and energy efficiency sub-sectors in 14 Pacific Island countries

<table>
<thead>
<tr>
<th>Pacific Island Countries</th>
<th>Petroleum</th>
<th>Electricity</th>
<th>Renewable Energy</th>
<th>Energy Efficiency</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Price Control</td>
<td>Import duty &amp; freight rebates</td>
<td>Subsidy</td>
<td>Import duty exemption</td>
</tr>
<tr>
<td>Cook Islands</td>
<td>Yes</td>
<td>No</td>
<td>Yes&lt;sup&gt;2&lt;/sup&gt;</td>
<td>Yes</td>
</tr>
<tr>
<td>Fiji</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>Federated States of Micronesia</td>
<td>No</td>
<td>No</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Kiribati</td>
<td>Yes&lt;sup&gt;4&lt;/sup&gt;</td>
<td>Yes</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>Nauru</td>
<td>Yes</td>
<td>No</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Niue</td>
<td>No&lt;sup&gt;6&lt;/sup&gt;</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Palau</td>
<td>No</td>
<td>No</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Papua New Guinea</td>
<td>Yes</td>
<td>Yes</td>
<td>ND&lt;sup&gt;8&lt;/sup&gt;</td>
<td>ND&lt;sup&gt;9&lt;/sup&gt;</td>
</tr>
<tr>
<td>Republic of the Marshall Islands</td>
<td>No</td>
<td>No</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Samoa</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>Solomon Islands</td>
<td>Yes</td>
<td>No</td>
<td>No&lt;sup&gt;11&lt;/sup&gt;</td>
<td>No</td>
</tr>
<tr>
<td>Tonga</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>Tuvalu</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Vanuatu</td>
<td>No&lt;sup&gt;13&lt;/sup&gt;</td>
<td>No</td>
<td>No</td>
<td>Yes</td>
</tr>
</tbody>
</table>

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<sup>1</sup> Import duty exemptions on renewable energy are allowed in most PICs if projects are funded by a donor or government.
<sup>2</sup> Direct cash grants to outer islands electrification are recorded as government expenditure under ‘social costs’.
<sup>3</sup> NA means not applicable as there is no solar home system in the outer islands.
<sup>4</sup> Kiribati has not been effective in monitoring prices; prices have not changed since 2009.
<sup>5</sup> There is a Price Control Act in Niue (1975) but petroleum is not included.
<sup>6</sup> ND means no data available.
<sup>7</sup> The current PIGGAREP Plus will include energy efficiency home loans subsidy.
<sup>8</sup> Diesel costs for power generation has an import duty tax but at lower cost compared to diesel use for other purposes.
<sup>9</sup> EE home loans project is to be implemented through the SIDS DOC project, replication of Palau EE home loan.
<sup>10</sup> Vanuatu has a Price Control Act 1974 but not effective.
Cooking for Life Initiative – Field testing biomass stoves in Fiji

According to the United Nations, 1.3 billion people lack electricity to light their homes and businesses. Almost 40% of the world’s population of 7 billion rely on wood, coal, charcoal, or animal waste to cook all or some of their food.

SPC is promoting the use of EZY biomass stoves. Under the Cooking for Life (CFL) initiative that was presented to the Energy Planning Unit (EPU), Ministry of Works and Public Utilities in Kiribati in September last year, SPC and the EPU expanded to introduce the biomass stoves in Kiribati. This initiative has now been extended to include a pilot study of the EZY biomass stoves in Kiribati, Fiji and Republic of Marshall Islands.

EZY stove is designed to decrease cooking time, facilitate in wood savings and reduce smoke emissions. The stove comes in five pieces and easy to assemble and are distributed by EZY Life. The cost of one stove is USD 18 and it aims to improve the quality of life and preserves the environment.

Working with Fiji’s Ministry of Social Welfare, Women and Poverty Alleviation over a period of two months (December – January) SPC conducted demonstrations and testing of EZY biomass stoves in three selected communities, namely Kukuwalu settlement, Newtown Hart and Sawani (Neelgiri Mother’s Club). A total of 46 households used the stove to cook their family meals. Most of the target users were women, and they included the elderly, the disabled and welfare recipients.
The feedback indicated that the women experienced health, economic and social benefits.

**Health benefits**

Exposure to and inhaling toxic smoke can cause severe respiratory problems. The field trial feedback indicated that approximately 90% of the women thought that the stove produced less smoke than an open fire.

‘I am asthmatic patient and I always use open fire to cook my food and boil water. When I used the stove and burned only firewood chips, there was less smoke compared to open fire. This stove will help asthmatic patients like me who still use an open fire for cooking.’ Source: A member of the Neelgiri Mother’s Club, Sawani, Nausori, Fiji.

A biomass stove will not only reduce exposure of toxic smoke but also help in savings from health care expenditure, especially for people (women and children) living with respiratory problems.

**Economic and social well-being**

According to the Fiji Bureau of Statistics household income and expenditure survey 2008–2009, 15% of urban households and 37% of rural households live in poverty. In terms of expenditure, a proportion of income is used to provide for their energy needs: electricity, firewood, LPG and kerosene. The field trials with the 46 households in the three communities indicated that using the biomass stove will allow them to spend less on fuel, save their firewood and improve their cash flow.

‘I am a widow and a social welfare recipient. I receive FJD 60 per month from the Welfare Office. Of this I use FJD 6 per week on kerosene, so this stove will really help me to save some money because with this stove I only use two pieces of wood and we don’t even need kerosene to light it.’

‘I speak on behalf of the Neelgiri Mother’s Club, Sawani. We prefer this energy efficient stove because it requires only two pieces of firewood to cook our meal, and it saves time. More importantly, it will improve our cash flow. The stove will save us buying a bundle of firewood (three dollars) and four litres of kerosene (ten dollars) that only lasts us one week. With the stove a bundle of wood can last us more than a week.’ Source: A member of the Neelgiri Mother’s Club, Sawani, Nausori, Fiji.

It is also vital to take note of the social benefits of using these stoves. The field trials showed that women see the stoves as useful: cooking on the stove is quicker than on the open fire, there is no need to collect so much firewood, the stove is portable and very easy to use. Women have more time to spend on entertainment or other productive activities and children are no longer required to go and look for firewood after school; they have more time for schoolwork and leisure activities.

In addition, SPC is conducting an analysis of the efficiency of the stove, testing the type of firewood, the content of the wood fuel used for cooking in comparison with the open fire. This will assist in compiling efficiency data for the stove and the different types of firewood that are commonly used across households in Fiji. Whilst efficiency and a reduction in the amount of smoke are the main advantages of the stoves, we should consider what else is important to households, such as the durability and safety of the stove, its convenience, its cost and the savings in terms of buying fuel.

A similar study under the CFL initiative is currently being conducted in Kiribati and Republic of the Marshall Islands. The promotion of modern forms of cooking such as the biomass stove could provide an opportunity to improve the health and the economic and social well-being of individuals and families.

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Fourth quarter 2013 oil market report  
(October–December)

The Asia Pacific benchmark Dated Brent crude declined in October, but remained above USD 105/bbl for the third consecutive month. In November Dated Brent crude price dropped, edging below USD 105/bbl for the first time since July. Reduction in refinery crude intake, due to scheduled turnarounds and poor refinery margins, was one of the key factors driving the price of crude oil down. However, the price of crude rebounded in December due to tight Libyan supply, as well as strong gasoil margins in Asia. In comparison to the third quarter of 2013, the price of Dated Brent crude in the fourth quarter decreased by USD 1/bbl from USD 109.65/bbl to USD 108.65/bbl.

The Asian petroleum product market showed mixed performance during October. The price of Asian gasoline fell, due to surplus supply that outweighed demand. Additional pressure came from increased exports from South Korea and China to Singapore, which contributed to an increase in gasoline stocks amid a slower demand from key regional importers Indonesia and Vietnam, which offset any potential rise. Asian gasoil prices improved slightly over limited supplies from north-east Asia that were tightened by a heavy refinery turn-around schedule and elevated demand from South Korea, Africa, Indonesia and the Middle East. Abundant jet fuel supplies in North Asia and weak demand from China and regional buyers resulted in Asian jet prices falling.

In November, the Asian petroleum product market continued to exhibit mixed performance, with an increase in Asian gasoline and gasoil prices and a decrease in the Asian jet/kerosene price. The emergence of fresh demand from Indonesia and strong buying interest in Asia, as well as a tightly supplied market due to the shutdown at Total’s 350,000 b/d Antwerp refinery in Europe, pushed Asian gasoline prices up. The Asian gasoil market was supported by tight supply in Asia due to an explosion at Sinopec’s Qingdao crude pipeline in China. The price of Asian jet/kerosene, on the other hand, experienced a fall, due to poor buying interest from the key aviation sector and slow winter heating demand for kerosene in North Asia.
Asian petroleum product markets recovered in December with an increase in both light and middle distillate prices. The increase in the gasoline price was supported by a supply disruption at Formosa’s Taiwanese refinery and reduced exports to Singapore that lowered supply inventories. Asian gasoil prices increased due to tight supply amid stronger regional demand from Vietnam and Indonesia. Asian jet fuel/kerosene prices increased as well, due to robust buying of kerosene for heating during the northern hemisphere winter, coupled with higher jet fuel consumption by the aviation sector, due to year-end holidays.

Moreover, refining margins indicate that regional demand for jet and diesel fuel has been supporting petroleum product prices from mid-2013.
Freight rates

Freight rates strengthened during the fourth quarter of 2013. The average rate for the quarter stood at around 170 WS, an increase of close to 8% compared to the previous quarter.

Exchange rates

While most of the currencies depreciated against the US dollar during the fourth quarter, the Solomon Islands dollar and Papu New Guinea kina gained strength. Samoan tala, however, remained relatively stable. Depreciation of currencies may put upward pressure on retail prices of petroleum products in those countries.

Source:
- The report has been generated using data and information from PLATTS Asia-Pacific/Arab Gulf Marketscan and PLATTS Clean Tankerwire.
- Exchange rates have been sourced from www.oanda.com.

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Pacific Fuel Price Monitor
October–December 2013 (Q4 2013)

WHAT'S INSIDE
1. Pacific fuel price monitor at a glance
2. Regional retail fuel prices (including taxes and duty)
3. Unleaded motor gasoline (mogas) prices (including and excluding taxes and duty)
4. Automotive diesel oil (ADO) prices (including and excluding taxes and duty)
5. Kerosene prices (including and excluding taxes and duty)
6. Liquefied petroleum gas (LPG)
7. International market pricing trends
8. Glossary and conversions

1. PACIFIC FUEL PRICE MONITOR AT A GLANCE

Mogas
American Samoa had the lowest tax inclusive mogas retail price closely followed by Kiribati. Pre-tax, New Caledonia, Samoa, American Samoa and Fiji retail prices were lowest and comparable with Australia and New Zealand. The highest retail mogas prices were in Wallis & Futuna, Niue and Cook Islands. Papua New Guinea (PNG) wholesale prices (for both mogas and ADO) were low but this was not reflected in retail prices.

ADO
American Samoa had the lowest tax inclusive retail ADO price. Pre-tax, retail ADO prices in American Samoa, New Caledonia, New Zealand and Fiji were lowest, followed by Kiribati, Samoa, Federated States of Micronesia (FSM) and Palau, all of which were lower than Australia. The highest ADO prices were in Wallis and Futuna, Niue, Cook Islands, Vanuatu and Tuvalu.

Kerosene
Kiribati had the lowest tax inclusive retail kerosene prices followed by American Samoa and Fiji. Wallis and Futuna, Palau and Niue had highest kerosene prices.

LPG
Fiji had the lowest LPG prices, while Palau, Niue, Vanuatu, and Wallis and Futuna had the highest.

Crude oil
Crude oil prices during the October–December period held steady, averaging USD 108.65/bbl, an increase of only 0.01% over the previous quarter.
2. REGIONAL RETAIL FUEL PRICE COMPARISON (INCLUDING TAXES AND DUTY)

Figure 1: Regional retail prices including duty and taxes

<table>
<thead>
<tr>
<th>Country/Region</th>
<th>Retail Mogas Price</th>
<th>Retail ADO Price</th>
<th>Retail Kerosene Price</th>
</tr>
</thead>
<tbody>
<tr>
<td>American Samoa</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Cook Islands</td>
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<td>Niue</td>
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<td>Palau</td>
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<tr>
<td>Papua New Guinea</td>
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<tr>
<td>Samoa</td>
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<td>Solomon Islands</td>
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<td>Tonga</td>
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<td>Tuvalu</td>
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<td>Vanuatu</td>
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<td></td>
</tr>
<tr>
<td>Wallis and Futuna</td>
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<td></td>
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<tr>
<td>Australia (NSW)</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Australia (Sydney)</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>New Zealand</td>
<td></td>
<td></td>
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</tr>
</tbody>
</table>

Key observations – general

- PICT fuel prices vary significantly from around USD1.00 per litre in American Samoa to above USD 2 per litre in smaller PICTs such as Wallis and Futuna, Niue and Cook Islands.
- Pre-tax margins above the Platts average mogas MOPS price (USD 0.71) for the period fall in the range of USD 0.20 (American Samoa) to in excess of USD 1.10 Wallis and Futuna) indicating a wide divergence in the cost of logistics and commercial margins within PICTs.
- Wide discrepancies such as these represent opportunities for PICTs to work on achieving more favourable fuel prices in the future.
- PICT retail price averages tend to be significantly higher than the regional reference markets of Australia, New Zealand and Hawai’i, with some notable exceptions.
- Large differences in retail fuel prices can often be explained by varying tax treatment and market size of each PICT, but this is not always the case, again representing opportunities for cost reduction in some countries.
- American Samoa and Samoa are achieving good fuel prices compared with their relative market size for both mogas and ADO.
- Fiji, with its relatively large total import volume related to its status as a regional supply centre has room for improvement based on the available economies of scale.
- PNG, the largest Pacific Island fuel market, reports very high pre-tax fuel prices relative to its market size.
- Tonga, Vanuatu and FSM have similar market scale. However, Tonga is the best performing.
- Niue and Tuvalu have very small volume and very high mogas and ADO prices.
3. MOGAS (UNLEADED PETROL) PRICES

Figure 2: Retail mogas price sorted by underlying cost

Figure 3: Retail mogas price sorted by retail price
Figure 4: Regional prices of mogas (excluding tax and duty)

Figure 5: Regional price of mogas (including tax and duty)
Key observations – mogas

- While most PICTs import 92 RON mogas; Niue, Cook Islands, New Caledonia, Vanuatu, and Wallis and Futuna import 95 RON, which has a higher cost than 92 RON. This goes some way to explaining variations among PICTs.
- The Pacific-wide retail average pre-tax and after-tax retail price for mogas was USD 1.26/litre and USD 1.58/litre respectively.
- The average pre-tax and after-tax wholesale price for mogas was USD 1.29/litre and USD 1.58/litre.
- Average MOPS for mogas 92 and 95 RON during the October–December period was USD 0.71/l and USD 0.73/l respectively.
- Pre-tax margins above the Platts average mogas MOPS price (USD 0.72) for the period fall in the range of USD 0.20 (American Samoa) to USD 1.10 Wallis and Futuna.
- Mogas-related tax rates between PICTs range from 4.45 UScpl (Solomon Islands) to 57.8 UScpl (New Caledonia).
4. AUTOMOTIVE DIESEL PRICES

Figure 7: Retail diesel price sorted by underlying cost

Figure 8: Retail diesel price sorted by retail price
Figure 9: Regional prices of diesel (excluding tax and duty)

Figure 10: Regional price of diesel (including tax and duty)
Key observations – diesel fuel

- Without tax and duty, New Caledonia has the lowest retail ADO prices.
- American Samoa imposes the lowest amount of tax and duty and therefore has the lowest after tax retail price.
- The majority of PICTs import 500ppmS ADO for land transport. Cook Islands and Palau have specifications of 50 ppmS. American Samoa, New Caledonia, Niue, Wallis and Futuna and Vanuatu import 10ppm diesel for automotive use. Those factors contribute to price variations between PICTs.
- The Pacific-wide average pre-tax and after-tax retail price for ADO was USD 1.33/litre and USD 1.59/litre.
- The Pacific-wide average pre-tax and after-tax wholesale price for ADO was USD 1.18/litre and USD 1.45/litre.
- Average MOPS for gasoil 10ppm and 500ppm during the October–December period was USD 0.79/l and USD 0.78/l respectively.
- Pre-tax margins above the Platts average ADO MOPS price for the period fall in the range of USD 0.25 (American Samoa) to USD 1.49 Wallis and Futuna).
- ADO related tax rates between PICTs range from 1.21 UScpl (American Samoa) to 48.8 UScpl (Niue).
5. KEROSENE PRICES

Figure 12: Retail kerosene price in the Pacific sorted by retail price

Diesel prices excluding tax & duty and annual volumes

Figure 13: Regional prices of kerosene (excluding tax and duty)
Figure 14: Regional prices of kerosene (including tax and duty)

**Key Observations—Kerosene**
- Kiribati has the lowest retail and wholesale kerosene prices; the highest prices are found in Wallis and Futuna, Niue and Palau.
- The Pacific-wide average pre-tax and after-tax retail price for kerosene was USD 1.32/litre and USD 1.49/litre respectively.
- Average MOPS for Asian jet during the October–December period was USD 0.78/litre.

### 6. LIQUEFIED PETROLEUM GAS (LPG) PRICES

Figure 15: Regional prices of LPG (including tax and duty)
Key observations LPG

- Saudi Aramco pricing, which is published monthly, is the acknowledged LPG benchmark price for this region.
- Fiji has the lowest LPG retail prices at USD2.05/Kg and Palau has the highest price of USD 4.96/Kg.
- Average Saudi Aramco prices for butane and propane during the October–December period was USD 1.00/Kg and USD 0.93/Kg respectively.
- There is significant potential to reduce regional LPG prices.

7. INTERNATIONAL MARKET TRENDS

Figure 16: Comparison – Singapore gasoline, jet fuel/kerosene, diesel and Dated Brent.

Asian petroleum product prices fluctuated in the fourth quarter. They increased in October, fell in November and increased in December again. In Q4-2013, Singapore free-on-board (FOB) prices for gasoline 92 fell by 2.48%, Kerosene prices increased by 0.78%, while the price for 10ppm and 500ppm diesel surged by 0.54% and 0.75% respectively. In comparison to the third quarter of 2013, the price of Dated Brent crude in the fourth quarter decreased by USD 1/bbl from USD 109.65/bbl to USD 108.65/bbl.

PICTs are part of the Asia Pacific fuel market, with Singapore being the recognised regional trading market, as well as a petroleum refining and distribution centre. The relevant pricing benchmarks in PICTs fuel market are Singapore prices for diesel (gasoil) with maximum 10, 50 and 500 ppm sulphur, gasoline (92 and 95 RON) and jet/kerosene.
Table 1: Monthly average of daily published mean of Platts Singapore prices

<table>
<thead>
<tr>
<th>Month average</th>
<th>Dated Brent (USD/bbl)</th>
<th>Asian gasoline 92 RON (USD/bbl)</th>
<th>Asian gasoline 95 RON (USD/bbl)</th>
<th>Asian Jet fuel/Kerosene (USD/bbl)</th>
<th>Asian gasoil 10ppm (USD/bbl)</th>
<th>Asian gasoil 50ppm (USD/bbl)</th>
<th>Asian gasoil 500ppm (USD/bbl)</th>
</tr>
</thead>
<tbody>
<tr>
<td>October</td>
<td>108.47</td>
<td>111.60</td>
<td>114.36</td>
<td>123.05</td>
<td>125.58</td>
<td>125.24</td>
<td>123.89</td>
</tr>
<tr>
<td>November</td>
<td>107.34</td>
<td>111.94</td>
<td>114.89</td>
<td>122.63</td>
<td>125.60</td>
<td>125.18</td>
<td>123.34</td>
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<tr>
<td>December</td>
<td>110.15</td>
<td>115.97</td>
<td>118.82</td>
<td>126.69</td>
<td>127.62</td>
<td>127.50</td>
<td>126.35</td>
</tr>
</tbody>
</table>

Figure 17: Difference between market prices

Singapore refiners Margin compared with Dated Brent price

Source: Platts Asia-Pacific/Arab Gulf Marktscan

Observations – refiners margin

- All petroleum fuel is produced from crude oil and all fuels are produced concurrently in varying proportions depending on a number of factors including the specific crude being run and the refinery configuration.
- Variances in refiners margin between fuel products over time are an indication of the relative demand for that fuel compared with other fuels.
- Low refiner margins in figure 17 above indicates that jet and diesel fuel are in high demand which is driving and or supporting regional prices while motor gasoline is in relatively long supply.

8. GLOSSARY AND CONVERSIONS

Abbreviations and definition of key terms

<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Definition</th>
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</thead>
<tbody>
<tr>
<td>ADO</td>
<td>Automotive diesel oil or diesel fuel</td>
</tr>
<tr>
<td>after – tax price</td>
<td>Price including tax and duty</td>
</tr>
<tr>
<td>bbl</td>
<td>Barrel (of oil), approximately 159 litres</td>
</tr>
<tr>
<td>Cpl</td>
<td>Cents per litre</td>
</tr>
<tr>
<td>DPK</td>
<td>Dual purpose kerosene (i.e. jet fuel and household use)</td>
</tr>
<tr>
<td>FOB</td>
<td>Free-on-board</td>
</tr>
<tr>
<td>gasoil</td>
<td>Refinery designation of diesel fuel</td>
</tr>
</tbody>
</table>
Conversions

<table>
<thead>
<tr>
<th>3.785</th>
<th>159</th>
</tr>
</thead>
<tbody>
<tr>
<td>3.785</td>
<td>159</td>
</tr>
<tr>
<td>litres/USG</td>
<td>litres/BBL</td>
</tr>
<tr>
<td>litres/BBL</td>
<td>USG/BBL</td>
</tr>
</tbody>
</table>

PICT fuel pricing methodologies

- Pricing methodology varies in PICTs. Some PICTs such as Samoa, Tonga, Papua New Guinea, Wallis & Futuna, New Caledonia, Vanuatu and Solomon Islands carry out price reviews on monthly basis.
- Fiji reviews petroleum product price on a quarterly basis. Price change is based on MOPS prices of previous quarter.
- American Samoa reviews prices on fortnightly basis.
- In some PICs such as Niue and Cook Islands price change is carried out on an ad hoc basis. Price change is mostly influenced by either a major surge or fall in international market prices.
- In Kiribati there has been no price change for the last two years; even though international market prices of petroleum products have continued to increase.

Price data sources

- PICT volumes used in this report are based on 2009 annual market volumes as collected and published by the SPC Economic Development Division.
- Data for Saudi Aramco LPG prices were adapted from [http://gasenergyaustralia.asn.au/](http://gasenergyaustralia.asn.au/).
- Figures 16 and 17 are generated using daily MOPS data sourced from Platts Asia-Pacific/Arab Gulf Marketscan.
- Prices for diesel, gasoline and jet/kerosene prices are provided by Platts (The McGraw-Hill Companies, Inc).

Fuel volumes

- Graphs referring to fuel volumes plot the Q4-2013 average prices against the 2009 annual volume demand for diesel and mogas.
- The size of the ball represents the 2009 annual total volume of all fuels within the PICT, an indicator of the import economies of scale available. (NB. PNG total volume includes Interoil refinery production).

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Disclaimer

The Secretariat of the Pacific Community has taken care in preparing these analyses. However, noting that the data in the analyses has been provided by third parties, SPC gives no guarantee as to its accuracy and reliability.
SPC Petroleum Advisory Service saves thousands of dollars in Cook Islands

SPC alerted the Cook Islands government to the fact that a shipment of imported diesel fuel had high sulphur content that could have caused thousands of dollars worth of damage to diesel engines.

Officials of the Government of Cook Islands sought assistance from SPC’s Petroleum Advisory Service to check that the different suppliers of the diesel fuel imported into their country complied with their national fuel specifications.

After investigating the matter, the SPC Petroleum Advisory Service advised the Cook Islands government that some of the imported diesel fuel had a sulphur content that was more than 100 times higher than the maximum accepted level of 50 parts per million (ppm).

On the strength of SPC’s advice, the Cook Islands government took measures to ensure that the offending fuel was suspended from sale to the domestic transport sector. The company involved was obliged to advise their customers to stop using their fuel until a new, low sulphur shipment arrived.

If this matter had gone undetected it is likely that vehicle owners who used the high sulphur diesel fuel would have experienced engine problems and incurred significant financial cost to repair their vehicles, as well as the inconvenience of having their vehicles off the road while repairs were carried out. It is estimated that the avoided costs for owners was in the order of hundreds of dollars per vehicle, with a total cost in the order of tens of thousands of dollars.

In recent years, regional fuel quality has been progressively improving as PICT governments adopt more stringent fuel standards to reflect the cleaner fuels that have become available in the region and in response to the fact that engine manufacturers now build motors that require those cleaner fuels.

The specification for the maximum allowed level of sulphur for automotive grade diesel fuel has been steadily decreasing over the past decade throughout the Pacific. For example, in Australia, the accepted maximum was 5000 ppm until January 2003, when it was reduced to 500 ppm. It was then further reduced to 50 ppm from January 2006 and ultimately to 10 ppm from January 2009. Similar changes have been happening in all PICTs. These days, the use of high sulphur diesel fuel is generally restricted to some industrial and marine diesel applications and electrical power generation.

The SPC Petroleum Advisory Service, within the Energy Programme of the SPC Economic Development Division, provides advice and training to SPC member PICTs on a wide range of petroleum-related issues, including fuel pricing; supply negotiations; price regulation and monitoring; supply security; fuel quality and specifications; energy policies, legislation and regulations; and health, safety, and the environment; as well as the development and deployment of alternative fuels such as biofuels from indigenous raw materials.

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Marshall Islands achieves policy target ahead of timeline

The North Pacific ACP Renewable Energy and Energy Efficiency Project (North-REP) in Republic of the Marshall Islands (RMI) has progressed steadily since the installation of solar home systems (SHS) in the outer islands began in November 2012. A total of 1500 SHS were provided to households on 14 atolls with all equipment supplied by Sunlabob Renewable Energy and installations carried out by the Marshalls Energy Company (MEC) technicians.

Despite the challenges of transportation, unfavourable weather conditions and limited in-country capacity, to name a few, a total of 1286 SHS are at the sites; 761 SHS have been installed and the installation of 525 SHS is in progress. The islands /atolls are: Ailuk (91), Maloelap (161), Namu (164), Lib (23), Lae (51), Jaluit (271), Jabat (23), Namdik (135), Ujae (73), and Kwajalein (294).

A key requirement for an installation is the payment of USD 100 installation fee per household. An estimated USD 146,600 has been collected to date and deposited in the Outer Islands Electrification Programme Maintenance Fund. Satisfied with the SHS installed, the local government of Lae atoll has paid the USD 5.00 monthly fee for the 60 SHS for a period of 12 months. Other local governments have expressed an interest in following suit. At the political level, the issue of sustainability has been tabled in Netijela sessions over the past weeks, with the government acknowledging the success of North-REP, particularly in terms of the positive impacts it has for the communities on the outer islands. Live footage of such impacts and other experiences with SHS are being acquired for compilation in a video: North-REP – Empowering the Communities Part 2.

The completion of installations in the 14 atolls will see the RMI achieving one of its policy targets – electrification of 100% of all urban households and 95% of rural outer atoll households by 2015 – before the anticipated timeline.

North-REP is funded by the European Union (EDF-10) and implemented by the Secretariat of the Pacific Community in Marshall Islands, Federated States of Micronesia and Palau. The Project Management Office is housed in the SPC North Pacific Regional Office in Pohnpei.

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Evaluating the wave energy resource in the Pacific

The Pacific Ocean is bounded by some of the most energetic weather systems in the world. The southern ocean and the northern Pacific produce strong storms that can generate waves that travel all the way across the ocean basin. Some of these waves reach Pacific islands, carrying energy that could be worth harvesting. The Wave and Coasts in the Pacific (WACOP) project funded by the European Union is analysing the wave climate of Pacific Island countries to understand whether waves are a sustainable resource of energy.

Historically, there has not been enough wave data collected in the region to understand the ‘wave climate’ (i.e. the average wave conditions) and calculate how much energy is carried by the waves. In order to understand the wave climate we have to rely indirect measures and hindcast models. The wave hindcast of the Pacific-Australia Climate Change Science and Adaptation Planning program allows us to understand the wave climate but also gives an indication of the wave energy available offshore.

Based on the analysis of this hindcast, the Pacific region receives on average up to 30 KW/m of offshore wave power (Figure 1). The countries that receive the most wave power are the ones exposed to the swell from the southern ocean that is constantly sending waves. These are Tonga (20 KW/m), Cook Islands (24 KW/m), Fiji (23 KW/m), and Samoa (17 KW/m). Other are countries less exposed to the swell but constantly exposed to the trade winds and receive a noteworthy amount of wave power; Tuvalu, for example, receives on average 8 KW/m. Finally the areas that receive the least amount of wave power are Solomon Islands and Papua New Guinea; for example, Honiara receives on average less than 50 W/m.

The global hindcast gives us information about the offshore wave climate but wave energy conversion devices are not practical to install offshore and the wave power available nearshore can be very different from offshore. When waves travel toward the shore they are affected by the local bathymetry and a large proportion of their energy is dissipated before they reach the shoreline. This means that wave power is not uniform along the coast and only a few areas are suitable for wave energy conversion. The WACOP project is identifying such areas in several locations: Tongatapu in Tonga, Samoa, Efate in Vanuatu, Viti Levu in Fiji, Rarotonga in Cook Islands, and Funafuti in Tuvalu. This is done by using nearshore wave numerical models. The most suitable areas for wave energy conversion are located where the deep ocean is very close to the shore and the nearshore wave climate is similar to that offshore. This is the case for the southern shores of Tongatapu (17 KW/m) where the feasibility of installing a wave power station has been investigated. There are also bathymetric features that can refract waves in a way that concentrates the wave energy at a particular spot (e.g. Apolima strait in Samoa, shown in Figure 2). These are hotspots of wave energy but they also often correspond with fish aggregation or surf spots that attract tourism, and care must be taken to protect these amenities as well as using them for wave power generation.

Wave energy conversion devices are a recent technological advance, and they come in many different designs. Some designs have been successfully deployed on coasts in Europe, while some are being tested and their efficiency and durability are still not well known. Furthermore, wave power devices are expensive but, in the longer term, they offer a very competitive alternative to fossil fuel. The Pacific could be a key region in the development of wave energy technology, allowing the industry to mature and be competitive on the global markets.
Figure 1: Mean annual wave energy flux (i.e. wave power) for the Pacific region (KW/m)

Figure 2: Wave height for Samoa
Note: the red dot in the Apolima strait is a wave energy hotspot.

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Renewable electricity generation amps up on Rarotonga

The New Zealand High Commission and Cook Islands Office of the Prime Minister, on 17 March 2014, welcomed the signing of the construction contract for a photovoltaic electricity generation system to be built at Rarotonga Airport.

New Zealand is working in partnership with the Cook Islands’ Government to boost renewable energy use across the islands. The goal is to provide efficient, reliable, safe, affordable, and sustainable electricity, said New Zealand High Commissioner Joanna Kempkers.

Wellington-based company NETcon International Ltd has been awarded a contract to develop a 961 kilowatt photovoltaic array to the West of the runway at Rarotonga Airport. Once connected into the island’s electricity distribution system in September 2014, it will provide 1,413 Megawatt-hours of electricity per year; representing almost 5 percent of the annual electricity generation on Rarotonga. It is estimated that this development will lead to a reduction of 370,000 litres of diesel fuel imports per year. Said the Cook Islands Prime Minister’s chief of staff Elizabeth Wright-Koteka.

The contract was awarded to NETcon International Limited through an open and competitive tender process. I am very pleased to report that a large proportion of the construction work will be undertaken by local Cook Island companies said Wright “This is part of a larger renewable energy programme funded by New Zealand in the Cook Islands, which also includes building six photovoltaic-diesel mini-grid systems which will meet around 95 percent of the electricity demand on the islands of the remote Northern Group.”

The Cook Island Government has set ambitious targets for 50 percent renewable energy by 2015 and 100 per cent by 2020. The projects on the Northern Group will enable the 2015 target to be reached ahead of schedule. Explained Wright “We are also working closely with our European Union counterparts who are funding similar systems on the Southern Group of the Cook Islands, all under the EU/NZ Energy Access Partnership.” Said Kempkers Renewable energy is a major focus of New Zealand’s support to developing countries. These investments in the Cook Islands are in line with New Zealand’s $65 million commitment toward renewable energy initiatives in the Pacific, made at the Pacific Energy Summit in Auckland, 2013.

NETcon is a renewable energy and distribution company and a subsidiary of Alpine Energy Ltd, which owns and operates the electricity distribution network in South Canterbury. NETcon will be working with Rarotonga based subcontractors Andersons Limited and Mike Rennie Builders Ltd for the installation works at Rarotonga airport. NETcon will be making the normal applications to the BTIB for registration to operate as a foreign owned enterprise.

Work on site will commence in April.

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A DB Project to deliver annual energy savings of USD 1.75 million in the Pacific

The Promoting Energy Efficiency in the Pacific – Phase 2 (PEEP2) Project is set to deliver significant energy savings to Cook Islands, Papua New Guinea, Samoa, Tonga and Vanuatu.

PEEP2 is a regional technical assistance project (TA-7798-REG) funded by the Asian Development Bank (ADB), and the International Institute for Energy Conservation (IIEC) is the technical assistance consultant selected for project implementation. The main objective of PEEP2 is to identify, design and implement energy efficiency measures that deliver significant energy savings, lower greenhouse gas (GHG) emissions and reduce dependency on fossil fuels for electricity generation in Cook Islands, Papua New Guinea, Samoa, Tonga and Vanuatu.

As of December 2013, a total of 31 energy efficiency projects were designed and approved by ADB for funding or co-financing by the ADB–Global Environment Facility, the Government of Australia and the Government of Japan. An additional three projects are being considered for Papua New Guinea. The projects cover energy efficiency measures in the residential, commercial and public sectors (including street lighting). Overall, the energy efficiency projects were developed under five main categories set under PEEP2:

- energy efficient street lighting
- energy efficient lighting in residential, commercial and government sectors
- energy efficiency measures in hotels and commercial buildings
- implementation of energy efficiency measures in the public sector
- fridge freezer replacement (Cook Islands)

Overall, the total projected annual energy savings are 3.49 GWh per year. The annual energy cost savings is 1.75 million USD per year and the total annual CO₂ savings is 2,818 tons of CO₂ equivalent per year. Tables 1 and 2 provide a summary of the estimated annual savings per country and project category. The projects covering energy efficient lighting in the residential, commercial and government sectors represent about 70% of the total estimated annual energy savings.

IIEC has commenced delivery and installation of energy efficient equipment in each of the five countries, which will continue during the first half of 2014. The estimated savings mentioned above will be monitored and verified for each project during 2014 and project case studies will be published during the second half of 2014.

### Table 1  Summary of projected annual savings for PEEP2 energy efficiency projects by country

<table>
<thead>
<tr>
<th>Country</th>
<th>Annual energy savings (kWh/year)</th>
<th>Annual energy cost savings (USD/year)</th>
<th>Annual CO₂ savings (tons of CO₂e/year)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cook Islands</td>
<td>836,271</td>
<td>485,477</td>
<td>629.5</td>
</tr>
<tr>
<td>Papua New Guinea</td>
<td>262,405</td>
<td>133,144</td>
<td>165.9</td>
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<tr>
<td>Samoa</td>
<td>740,569</td>
<td>333,257</td>
<td>601.4</td>
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<tr>
<td>Tonga</td>
<td>638,924</td>
<td>250,977</td>
<td>581.7</td>
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<tr>
<td>Vanuatu</td>
<td>1,007,048</td>
<td>550,548</td>
<td>838.8</td>
</tr>
<tr>
<td>TOTAL</td>
<td>3,485,217</td>
<td>1,753,403</td>
<td>2,818.3</td>
</tr>
</tbody>
</table>

### Table 2  Summary of projected annual savings for PEEP2 energy efficiency projects by project category

<table>
<thead>
<tr>
<th>Project Category</th>
<th>Annual Energy Savings (kWh/Year)</th>
<th>Annual Energy Cost Savings (USD/Year)</th>
<th>Annual CO₂ Savings (tons of CO₂e/Year)</th>
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<tbody>
<tr>
<td>Energy Efficient Street Lighting Program</td>
<td>288,033</td>
<td>168,081</td>
<td>241.5</td>
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END-USE ENERGY CONSUMPTION

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<tr>
<td>Energy Efficiency Measures in Hotels and Commercial Buildings</td>
<td>134,345</td>
<td>55,667</td>
<td>110.7</td>
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<tr>
<td>Implementation of Energy Efficiency Measures in the Public Sector</td>
<td>451,194</td>
<td>272,157</td>
<td>405.0</td>
</tr>
<tr>
<td>Fridge Freezer Replacement Program (Cook Islands)</td>
<td>176,405</td>
<td>94,316</td>
<td>66.4</td>
</tr>
</tbody>
</table>

For more information on the PEEP2 energy efficiency projects and activities, please visit www.ee-pacific.net or contact David Morgado – IIEC’s Energy Efficiency Specialist and PEEP2 Project Coordinator (dmorgado@iiec.org).

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The arrival of solar LED street lighting equipment in Cook Islands, procured under PEEP2, to be installed in the Rarotonga International Airport Car Park, Punanga Nui Market and Rarotonga Port.
The pursuit for clean and affordable electricity

It would be hard to imagine our lives without electricity; waking up in the morning having to make tea without an electric kettle, ironing clothes without an electric iron, food would not be refrigerated, no television and computer or internet, nighttime activities would be by candlelight.

These connections are simple; electricity (and electricity that is clean and affordable) makes our life easier, more efficient and keeps our economies afloat.

The World Bank reports that over 1.2 billion people – 20% of the world’s population - are still without access to electricity worldwide, almost all of whom live in developing countries.

In the Pacific, 78% of the households do not have access to electricity, that’s about seven million out of the region’s ten million people. It is important to note however that access to electricity is quite higher in small island states (averaging 90%) and Polynesia (averaging 80%) than in larger and more populated Melanesian countries where overall household electrification rates are on average below 30%.

In 2010 the United Nations Secretary General’s Advisory Group on Energy and Climate Change called on the international community to ensure ‘universal access to modern energy services’ by 2030. The International Energy Agency estimates that investments of $641bn are required to achieve this.

That is an ambitious goal and whether or not the world is able to achieve that depends on the synergies that are created now.

The head of the Secretariat of the Pacific Community’s (SPC) Energy Programme, Solomone Fifita says that achieving higher levels of access to electricity in the region will fundamentally be the consequence of the leadership and wisdom of island leaders and the level of collaboration with relevant stakeholders. He said that whatever governments plan to be introduced should be affordable and sustainable in the long run.

Fiji government has taken a giant leap in improving access to electricity for its citizens. In the 2013 Fiji Budget announced last month (November), the Fijian Ministry of Public Utilities and Energy were given a total allocation of $134.6 million with $22.5m or 17% specifically set aside for Energy. The total sum set aside for rural electrification is $8.5 million.

The Fiji government hopes to have 90% electrical generation by renewable energy sources by 2015 and is making progress in achieving that goal. Recently, it was announced that the Fijian government has signed an agreement with the People’s Republic of China to construct a 700-kilowatt mini hydro power plant in Taveuni. In January this year, Prime Minister Commodore Voreqe Bainimarama opened the FJD 14 million Seqaqa-Dreketi Extension of the electricity grid in the Northern part of the Fiji group. The project was a joint venture between the Fijian government and Fiji Electricity Authority.

Fiji’s efforts in increasing electricity accessibility through renewable sources were recognised in the 2013 New Zealand Engineering Excellence Awards in the Energy and Resources category. The FJD 300 million Nadarivatu Hydropower project which became operational in May 2012 is generating 101 Giggawatt of electricity every year, providing 12% of Fiji’s electricity demand. It also is having significant economic benefits to Fiji by reducing the dependence on costly imported diesel, saving the nation FJD 42million dollars per year.

Fiji’s central bank, the Reserve Bank of Fiji has also made it mandatory for commercial banks to give 6 per cent of their deposits as loans to the agriculture (4 per cent) and renewable energy sector (2 per cent). In December 2012, the deposits held by the banks totaled about FJD 417 million, the loans and similar liabilities to these two sectors therefore would have totaled about FJD 16.6 million.

The commitment shown by Fiji government is encouraging and these improvements have been made possible with the pooling of resources from different stakeholders that includes governments, private sector, non-governmental organisations (NGOs), aid agencies, and representatives of civil society.

While access to electricity is a vision that many hope to achieve, there is a large cost involved. The cost of electricity in the Pacific is amongst the highest in the world and electricity production through petroleum fuel use is as high as 40% in some Pacific Island states. The region’s commercial energy needs is fulfilled by fossil fuels which accounts for a staggering 95% of the total supply.

The situation is further exacerbated by the lack of resources and finance to utilise renewable energy opportunities in the Pacific. The commissioning of the one megawatt solar farm in Tonga in 2012 and the milestone achieved by Tokelau in becoming the first country in the world...
to become 100% dependent on solar power for electricity generation are positive indicators.

The United Nations Sustainable Energy for all (SE4All) also seems to be rolling out well in the region. The initiative which seeks to achieve universal energy access, improve energy efficiency, and increase the use of renewable energy is received well by Pacific governments. Fiji, for instance, is in the process of finalizing its National Energy Policy which is reflective of the objectives and needs stipulated in the SE4All agenda.

The work by SPC’s Energy Programme in the Australia-funded Pacific Appliance Labelling and Standards (PALS) programme is critical in engaging Pacific countries in efficient energy practices. So far, seven countries have already endorsed the implementation of the PALS programme and its legal standards.

Access to clean and affordable electricity is increasingly being recognised as a basic human need, a prerequisite for living a life in dignity. Without electricity, people in the world's poorest countries are deprived of efficient and effective heating, lighting and cooking practices. Seven million people in the Pacific do not have access to electricity and are deprived of living a quality life.

For more information:

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Communications and Media Liaison
EDD, SPC
ZhiyadK@spc.int

New FEA grid extension at Dreketi, Fiji (photo courtesy: Fiji Ministry of Information)
Welcome to SPC

Pacific Energiser is pleased to welcome and introduce to its readers, three new staff, who joined recently at SPC’s Economic Development Division. In October 2013, Mr Delton Jones joined as the Economic Adviser, Mr Allan Mua Illingworth joined as the Monitoring and Evaluation Adviser and Ms Uchenna Onuzo joined as the ODI Fellow: Energy/Transport Economist.

Delton is a British citizen and has joined SPC after serving as the Permanent Secretary Finance and Chief Economist in the Turks and Caicos Islands in the Caribbean. Allan is a Fiji citizen (of Rotuman heritage) and joins SPC after working for the last ten years with AusAID’s Pacific Leadership Program, the United Nations Population Fund–Pacific, and the SPC Regional Rights Resource Team (RRRT). Uchenna is of Nigerian descent, and has joined SPC after completing her Master’s in Public and Economic Policy at the London School of Economics (LSE), where she also served as a consultant with UNICEF and, prior to that, was a market research analyst in New York, USA.

These three new staff members strengthen the capacity of EDD in general and specifically the Energy Programme. They bring to the programme new perspectives from regions outside the Pacific, a different work ethic and culture, and also the needed support to bolster the programme’s efforts to be more accountable and outcomes-based and to strengthen policy decisions in both energy and transport, based on sound economic analysis.

We wish Delton, Allan and Uchenna all the best in their work at EDD.

Solomone Fifita
Deputy Director (Energy), Energy Programme, SPC

Delton Jones, Economic Adviser

Delton is a public sector financial management expert and chief economist with over 15 years’ experience in the public sector of the Turks and Caicos Islands in the Caribbean. He has high-level policy and technical experience in areas such as preparing country and regional cooperation frameworks (involving stakeholder consultations) with donors such as the EU, the Caribbean Development Bank and UNDP; preparing country economic and budget assessments; supervising; and reporting on national and regional donor programmes. He has served as project economist on several teams for transport sector projects, including preparation of a transport sector policy, and appraising and securing funding for several road, causeway and port projects. He has also worked on several public/private partnerships initiatives, including a joint venture for construction and management of an international airport.

Allan Mua Illingworth, Monitoring and Evaluation Adviser

Allan Mua Illingworth is the Monitoring and Evaluation Adviser for the SPC Economic Development Division. He is responsible for providing high-level advice and support in monitoring and evaluation of all programmes and projects to enable the division to achieve better development outcomes. Allan has extensive experience in monitoring and evaluation (M&E) and programme management for diverse programmes and projects. Other attributes include strong strategic thinking, and analytical and reporting skills. He brings to SPC over ten years of development experience from working in various thematic sectors in the Pacific region. Prior to joining SPC, Allan was employed as the Monitoring and Evaluation Specialist with AusAID’s Pacific Leadership Program.

Uchenna Onuzo, Energy/Transport Economist

Uchenna is an economist with varied experience across public sector consulting, market research, and economic development analysis in USA, Nigeria and India. Her policy analysis and reporting background include preparing a UNICEF consultancy report that was recently referenced in the UN Secretary General’s International Solidarity Report (August, 2013), a proposal for the Nigerian government on a potential rural electrification cross-subsidy programme, and market research that involved extensive data collection and subsequent analysis and recommendations. She has experience in producing policy briefs and papers, and has demonstrated problem-solving and analytical skills and the ability to identify profitable opportunities for the private sector.
<table>
<thead>
<tr>
<th>Date</th>
<th>Event</th>
<th>Venue</th>
<th>Responsible agencies</th>
<th>Officer responsible</th>
</tr>
</thead>
<tbody>
<tr>
<td>25–27 March</td>
<td>Pacific and Caribbean Conference on Effective and Sustainable Regulation of Energy and Water Services</td>
<td>Nadi, Fiji</td>
<td>ADB</td>
<td>Kala Mulqueeny</td>
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<tr>
<td>31 March–4 April</td>
<td>Pacific Regional Energy and Transport Ministers Meeting</td>
<td>Nadi, Fiji</td>
<td>SPC</td>
<td>Makereta Lomaloma</td>
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<tr>
<td>2 April</td>
<td>Pacific launch of the Decade of SE4ALL</td>
<td>Nadi, Fiji</td>
<td>SPC</td>
<td>Solomone Fifita</td>
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<tr>
<td>9–10 April</td>
<td>Annual European Meeting on Marine Energy</td>
<td>Cherbourg, France</td>
<td>THETIS MRE</td>
<td><a href="http://www.thetis-emr.com">www.thetis-emr.com</a></td>
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<tr>
<td>tbc</td>
<td>Arizona State University VECTEC training on solar PV</td>
<td>tbc</td>
<td>Arizona State University</td>
<td>Anbika Adhikari or Gavin Pereira</td>
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<tr>
<td>6–9 May</td>
<td>Lighting Workshop &amp; PALS Steering Committee Meeting</td>
<td>Nadi, Fiji</td>
<td>SPC</td>
<td>Makereta Lomaloma</td>
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<tr>
<td>3–5 June (tbc)</td>
<td>Inception Workshop on Regional Efficient Lighting Strategy</td>
<td>Nadi, Fiji</td>
<td>SPC</td>
<td>Makereta Lomaloma</td>
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<tr>
<td>June/July (tbc)</td>
<td>Inception Workshop for the Technical and Vocational Education and Training for Sustainable Energy and Climate Change Adaptation Project</td>
<td>tbc</td>
<td>SPC/USP</td>
<td>Solomone Fifita or Elizabeth Holland</td>
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<td>July (tbc)</td>
<td>Energy Investors Forum</td>
<td>tbc</td>
<td>PRH/PPA/ Private Sector Development Initiative (PSDI)</td>
<td>Andrew Daka</td>
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<tr>
<td>1 July</td>
<td>Smaller Islands States Officials meeting</td>
<td>Suva, Fiji</td>
<td>PIFS</td>
<td>Scott Hook</td>
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<td>2–3 July</td>
<td>Pre-Forum Forum Officials Committee meeting</td>
<td>Suva, Fiji</td>
<td>PIFS</td>
<td>Scott Hook</td>
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<td>7–11 July</td>
<td>23rd Pacific Power Association Annual Conference and Trade Exhibition</td>
<td>Papeete, French Polynesia</td>
<td>PPA</td>
<td>Andrew Daka</td>
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<tr>
<td>29 July–1 August</td>
<td>45th Pacific Islands Forum Leaders Meeting</td>
<td>Koror, Palau</td>
<td>PIFS</td>
<td>Scott Hook</td>
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<tr>
<td>29 July–1 August</td>
<td>Commissioning of hardware installations on the ground – Palau PV project</td>
<td>Koror, Palau</td>
<td>SPC</td>
<td>Rupeni Mario</td>
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<tr>
<td>July (tbc)</td>
<td>International Conference on Renewable Energy and Climate Change – Focus on the Pacific</td>
<td>Suva, Fiji</td>
<td>USP (PACE-SD)</td>
<td>Aliti Koroi</td>
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<td>5–8 August (tbc)</td>
<td>Energy data and information workshop</td>
<td>Suva, Fiji</td>
<td>SPC</td>
<td>Frank Vukikomoa</td>
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<td>11–15 August (tbc)</td>
<td>Petroleum Pricing Workshop and Dangerous Goods Transport, Handling &amp; Storage Training</td>
<td>Suva, Fiji</td>
<td>SPC</td>
<td>Alan Bartmanovich</td>
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<td>1–4 September</td>
<td>Global Conference for Small Island Developing States</td>
<td>Apia, Samoa</td>
<td>SIDS DOCK</td>
<td>Al Binger</td>
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<tr>
<td>October (tbc)</td>
<td>Validation workshop on the regional efficient lighting strategy</td>
<td>Nadi, Fiji</td>
<td>SPC</td>
<td>Makereta Lomaloma</td>
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*SPC Secretariat of the Pacific Community*

**Energy Programme**

**Economic Development Division**

**Secretariat of the Pacific Community**

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