



Cook Islands

Country Energy Security Indicator Profile 2009



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of the Pacific
Community



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energy for development



Cook Islands Country Energy Security Indicator Profile 2009

**Prepared by the Energy Programme, Economic Development Division
Secretariat of the Pacific Community
Suva, Fiji
2012**

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Deputy Director (Energy)
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In August 2010 at the 41st Pacific Islands Forum at Port Vila, Vanuatu, the Forum Leaders endorsed the *Framework for Action on Energy Security in the Pacific* (FAESP): 2010–2020 as the regional blueprint for the provision of technical assistance to the energy sectors of Pacific Island countries and territories (PICTs). FAESP encompasses the Leaders' vision for an energy secure Pacific where Pacific people at all times have access to sufficient sustainable sources of clean and affordable energy and services to enhance their social and economic well-being.

The *Implementation Plan for Energy Security in the Pacific* (IPESP) (2011–2015) is a five-year plan for pursuing the vision, goal and outcomes of FAESP. It reflects the priority regional activities that are to be collectively delivered by the participating members of the Council of Regional Organisations in the Pacific (CROP) to support, complement and add value to national efforts on energy security.

In order to better appreciate the impacts of FAESP and its implementation plan on the energy security status of PICTs, baseline energy security indicators must be established, against which performance in future years can be benchmarked.

The energy security indicators in this report derive from a consultative process involving representatives of PICTs, regional organisations, the private sector and development partners. The process culminated in the adoption of IPESP and its monitoring and evaluation framework, the energy security indicators, at the Inaugural Regional Meeting of Ministers of Energy, ICT and Transport in April 2011.

As a first attempt to improve the transparency and accountability in the energy sector, there is obvious room for improvement. Access to reliable and sufficient data is a common problem and this monitoring and evaluation tool can only get better with the kind assistance of the custodians of the energy sector data.

Solomone Fifita
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SPC

Abbreviations

| | |
|----------------|--|
| ADB | Asian Development Bank |
| ADO | automotive diesel oil |
| Ave. | average |
| CO2 | carbon dioxide |
| DPK | dual purpose kerosene |
| e. | estimate |
| EE | energy efficiency |
| EEZ | exclusive economic zone |
| FAESP | Framework for Action on Energy Security in the Pacific |
| 14 FICs | Forum Island countries (SIS and non-SIS affiliation) |
| GDP | gross domestic product |
| GHG | greenhouse gases |
| GJ | giga joules |
| GWh | giga Watt hours |
| HES | household expenditure survey |
| HIES | household income and expenditure survey |
| IPP | independent power producer |
| IUCN | International Union for Conservation of Nature |
| kWh | kilo watt hour |
| kWp | kilo watt peak |
| km | kilometre |
| LPG | liquefied petroleum gas |

| | |
|----------------|---|
| MEPS | minimum energy performance standard |
| MJ | mega joules |
| n.a | (data) not available |
| N/A | (indicator) not applicable |
| NEP | national energy policy |
| Non-SIS | Non-Forum small island state members – Fiji, FSM, PNG, Samoa, Solomon Islands, Tonga & Vanuatu |
| PPA | Pacific Power Association |
| ppm | parts per million |
| PRISM | Pacific Regional Information System, Statistics for Development at the Secretariat of the Pacific Community |
| PV | photo voltaic |
| RE | renewable energy |
| SHS | solar home systems |
| SIS | Forum small islands states – Cook Islands, Kiribati, Nauru, Niue, Palau, RMI & Tuvalu |
| TAU | Te Aponga Uira O Tumu te Varovaro (power utility company in Avarua) |
| ULP | unleaded petrol (another name for motor gasoline) |
| UNDP | United Nations Development Programme |
| UNFCCC | United Nations Framework Convention on Climate Change |

Country profile

Cook Islands National Energy Policy Vision 2005

‘Working together with the people in building a better nation’

| | |
|-----------------------------------|--|
| Country | Cook Islands |
| Capital | Avarua |
| Capital island | Rarotonga |
| Population | 15479 (2009 PRISM estimate); 15324 (2006 census) |
| Land area | 240 km ² |
| Max height above sea-level | 652 m |
| Geography | Cook Islands consists of 15 small islands with a total land area of 240 km ² located half way between Hawaii and New Zealand. Over 88% of the land is concentrated in the southern group of the eight mostly elevated, fertile islands, where 90% of the populace lives. The northern Cook Islands are low-lying, sparsely populated, coral atolls. The country has 120 km of coastline. Arable land comprises 17% of the total and 13% is under permanent crops. |
| Location | Latitudes 9°–22° S and longitudes 157°–166° W |
| EEZ | 1800000 km ² |

| | |
|--------------------------------------|--|
| Climate | Cook Islands has a tropical oceanic climate with two seasons. The drier months are from April to November and the wetter, more humid months, are from December to March. During the latter season, Cook Islands can experience occasionally severe tropical storms and hurricanes. Easterly trade winds dominate with some seasonal variation. |
| Rainfall | Typically rainfall is around 2000 mm with two thirds falling from November to April. |
| Mean temperature | 23°C during the drier months and 25°C during the wet and humid months. |
| Economic | The leading producers of income in Cook Islands are tourism, fishing, agriculture and financial services. |
| GDP per capita | USD 9282.68 |
| Currency | New Zealand dollar |
| Exchange rate | NZD/USD - \$0.6348 [OANDA] |
| Language | English and Maori |
| Government | Self-governing in free association with New Zealand |
| Country representative to SPC | Secretary Ministry of Foreign Affairs & Immigration PO Box 105 Rarotonga Tel: (682) 29347 Fax: (682) 21247 Email: secfa@foraffairs.gov.ck ; region@mfai.gov.ck |

Energy context

Energy consumption in Cook Islands is predominantly reliant on imported fossil fuels, which roughly accounts for over 99% of the country's energy consumption. In 2009, around 12.7 million litres of diesel, 4.2 million litres of petrol, and 9.7 million litres of kerosene were imported into the country. The recorded fuel import bill stood in the vicinity of USD 57.8 million dollars with a current GDP of USD 209.8 million dollars. Petroleum fuels are supplied to Cook Islands by Mobil, Pacific Energy and Total. Triad purchases fuel from Pacific Energy for distribution within the country. Petroleum products are mainly imported from Australia and Singapore via Fiji, using local coastal tankers, to bulk storage in Rarotonga. Diesel fuel for electricity generation accounted for 7.2 million litres in 2009. Most of the kerosene and petrol imported is used for air and land transport respectively.

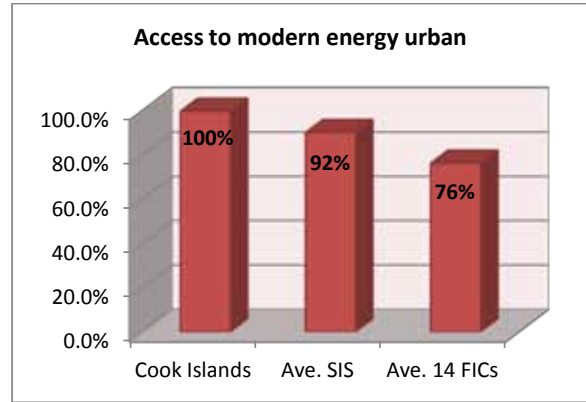
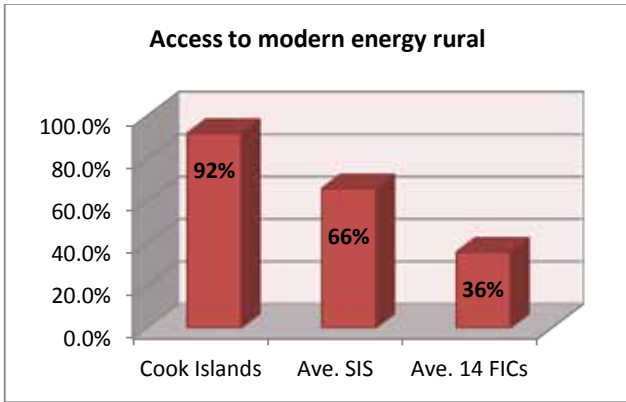
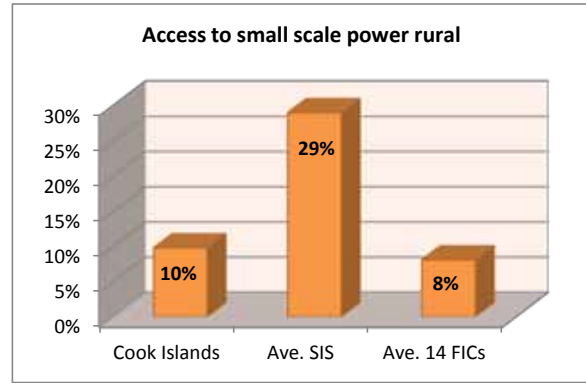
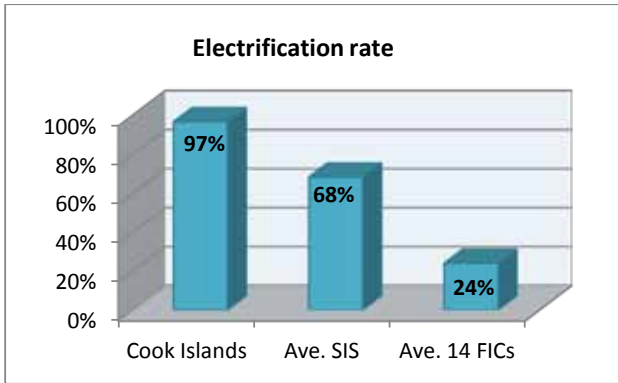
With regard to the power sector, around 97% of households in Cook Islands are connected to the electricity with 100% grid connection in Rarotonga. Aitutaki, Mangaia and Atiu are other islands in Cook Islands that also have access to 24-hour electricity. The rest of the islands have access to small scale power. Power production and distribution in Rarotonga is managed by Te Aponga Uira O Tumuu Varovaro (TAU). On the other islands, the utility companies are managed by local government.

In 2009, TAU generated 27.7 GWh of electricity in Rarotonga, of which 24.6 GWh was sold, thus recording an estimated 12% distribution loss. Electricity production from renewable energy sources in Cook Islands is mainly from small scale wind and solar power. Mangaia Island has a 40kW wind system with Pukapuka and Nassau having a number of small solar home systems. In 2009 the contribution of these small renewable energy systems to electricity generation was not significant.

The 2009 baseline energy security indicators that are presented in this report for Cook Islands is compiled and structured according to the four key outcomes to energy security and the seven action themes of the FAESP. Graphical comparison included in the analysis provides a snapshot of Cook Island's situation as compared to other Forum small island states (SIS) and Forum Island countries.

FAESP key energy security outcome 1 – access to energy

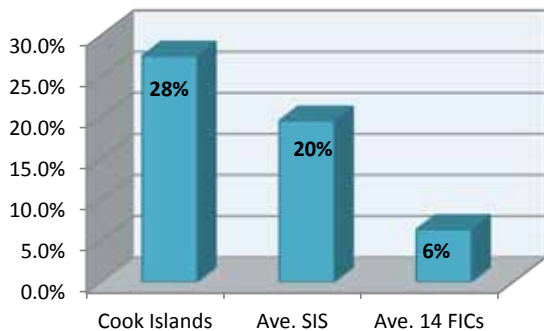
| No. | FAESP indicators | | Explanatory notes |
|-----|---------------------------------------|------|---|
| 1 | Electrification rate (%) | 97% | <p><i>The indicator tracks the share of households actually connected to a utility grid.</i></p> <p>Based on the Cook Islands HES (2005/2006) survey, close to 92% of the population have access to grid connected electrification (Rarotonga — 93%; rest of Cook Islands — 90%). Updated estimates following the Cook Islands National Workshop on Energy Planning and Policy in November 2011, were established for Rarotonga, with around 99.9% access (3 households with off-grid generator installations still remain on Rarotonga, two of these installations are solar PV, and one diesel generator). Revised estimates in 2009 points to 97% of the households in the Cook Islands having access to grid connected electricity. Of note that there are significant number of households in Cook Islands that have access to more than one form of power source.</p> |
| 2 | Access to small scale power rural (%) | 10% | <p><i>The indicator tracks the share of rural households with access to basic electrification (solar, pico hydro, small wind, community grid).</i></p> <p>With the exception of Pukapuka, which mainly has solar home systems, other small islands in the Cook Islands have access to diesel generators. In this analysis, only Rarotonga is considered an urban area. The rest of the islands are regarded as rural areas. Based on the HES 2005/2006 survey, access to small scale power in the rural areas is around 10%. An estimated 6% of households in the urban area of Rarotonga were also found to have access to small scale power.</p> |
| 3 | Access to modern energy rural (%) | 92% | <p><i>The indicator tracks the share of rural households with access to modern cooking and lighting which specifically covers all forms of energy other than traditional biomass.</i></p> <p>All rural households in the Cook Islands have access to some form of modern energy. The percentage figures provided is the calculated average from access to modern forms of cooking and lighting. Based on 2005/2006 HES, access to modern cooking — rural is 83.5%. Access to modern lighting — rural is 99.8%.</p> |
| 4 | Access to modern energy urban (%) | 100% | <p><i>The indicator tracks share of urban households with access to modern cooking and lighting which specifically covers all forms of energy other than traditional biomass.</i></p> <p>All urban households in the Cook Islands have access to some form of modern energy. The percentage figures provided is the calculated average from access to modern forms of cooking and lighting in Rarotonga only. Based on 2005/2006 HES, access to modern cooking – urban is 99.1%. Access to modern lighting – urban is 100%. Average access to lighting and cooking gives 99.6% which is rounded of to 100%.</p> |



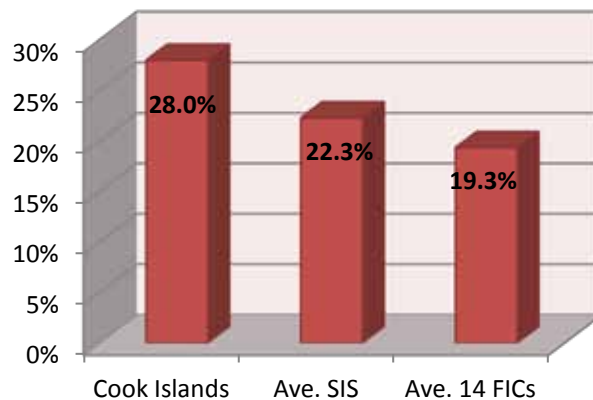
FAESP key energy security outcome 2 – affordability

| No. | FAESP indicators | | Explanatory notes | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|--------------------|---------------------------------------|------|---|--------------------|--|--|------|------------------|---------|--|------|------------------|---------|--|------|-------------------|---------|--|------|----------|---------|--|------|------------|---------|--|------|----------|---------|--|------|----------|---|--|-------|
| 5 | Macro-economic affordability (index) | 28% | <p><i>The indicator tracks fuel imports as a percentage of GDP. The higher the figure, the more vulnerable an economy is to world market price volatility.</i></p> <p>The following figure was calculated from reference data on the Cook Islands Statistics webpage. Total value fuel imports over total GDP for 2009. (USD 184,236.734 / USD 209,792,513)</p> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 6 | Electricity tariff (USD/kWh) | 0.44 | <p><i>The indicator tracks average tariffs for the year (all tariff categories, i.e. residential, commercial and industrial). Requires averaging during the year as tariffs in most PICs are adjusted several times a year.</i></p> <p>Refer to the table on the right for reference calculation of the average tariff. The tariff calculation mainly refers to the power utility in Rarotonga. Tariff calculation is also applied to the outer Islands, which average around USD 0.38. Outer islands have individual fixed tariff rates. Outer island fuel is subsidised by government with the exception of Aitutaki, which is a state-owned enterprise similar to TAU.</p> <table border="1" data-bbox="1061 344 1489 573"> <thead> <tr> <th colspan="3">Electricity tariff</th> <th>0.43</th> </tr> </thead> <tbody> <tr> <td>Commercial block</td> <td>USD/kWh</td> <td></td> <td>0.46</td> </tr> <tr> <td>Industrial block</td> <td>USD/kWh</td> <td></td> <td>0.41</td> </tr> <tr> <td>Residential Block</td> <td>USD/kWh</td> <td></td> <td>0.45</td> </tr> <tr> <td>1-60 kWh</td> <td>USD/kWh</td> <td></td> <td>0.33</td> </tr> <tr> <td>61-240 kWh</td> <td>USD/kWh</td> <td></td> <td>0.46</td> </tr> <tr> <td>>240 kWh</td> <td>USD/kWh</td> <td></td> <td>0.55</td> </tr> <tr> <td>Lifeline</td> <td>%</td> <td></td> <td>74.8%</td> </tr> </tbody> </table> <p><i>Referenced electricity tariff calculation based on TAU power utilities data</i></p> | Electricity tariff | | | 0.43 | Commercial block | USD/kWh | | 0.46 | Industrial block | USD/kWh | | 0.41 | Residential Block | USD/kWh | | 0.45 | 1-60 kWh | USD/kWh | | 0.33 | 61-240 kWh | USD/kWh | | 0.46 | >240 kWh | USD/kWh | | 0.55 | Lifeline | % | | 74.8% |
| Electricity tariff | | | 0.43 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Commercial block | USD/kWh | | 0.46 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Industrial block | USD/kWh | | 0.41 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Residential Block | USD/kWh | | 0.45 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1-60 kWh | USD/kWh | | 0.33 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 61-240 kWh | USD/kWh | | 0.46 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| >240 kWh | USD/kWh | | 0.55 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Lifeline | % | | 74.8% | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 7 | Electricity lifeline (%) | 75% | <p><i>The relation between the average tariff and the lifeline tariff if a lifeline tariff exists.</i></p> <p>Refer to the table on the right for reference calculation of the average tariff. Calculation of the average tariff is in Rarotonga only. Outer Islands do not have lifeline tariffs.</p> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 8 | Household energy expenditure load (%) | 28% | <p><i>The indicator tracks average household expenditure for energy per year as a percentage of average household income.</i></p> <p>The latest 2006 Census does not provide detailed information on energy household expenditure. The analysis was based on the 2002 HIES study. Associated energy expenditure load cost is calculated from the two reference categories — annual household operation expenditure and annual transport expenditure.</p> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

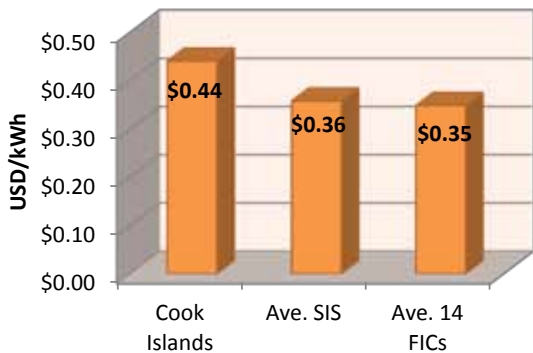
Macro-economic affordability



Household energy expenditure load (%)

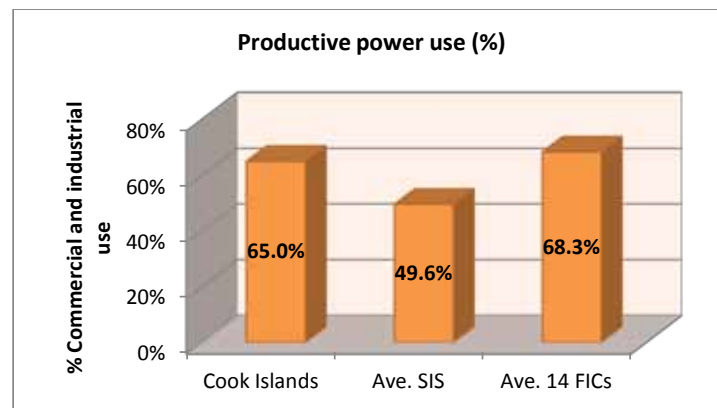
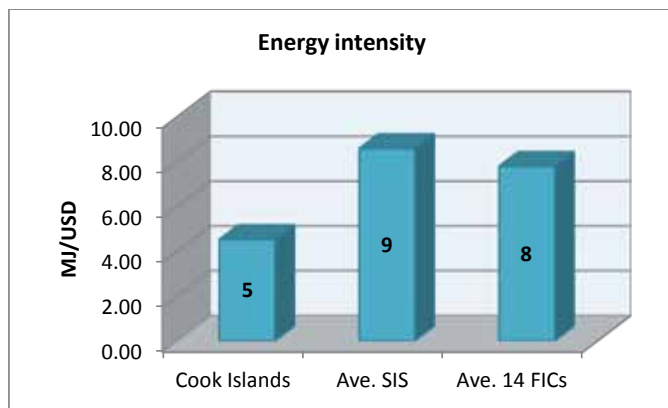


Electricity tariff

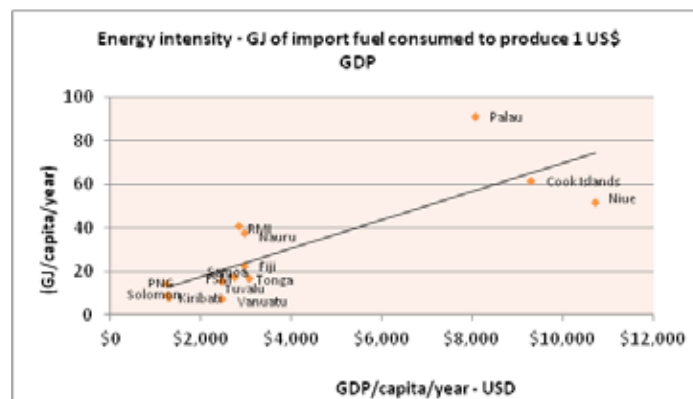
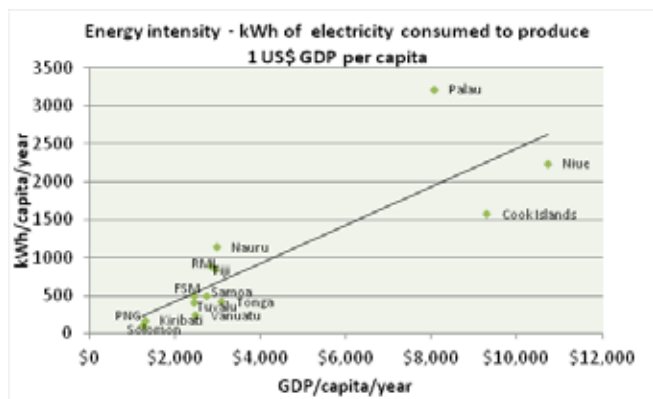


FAESP key energy security outcome 3 – efficiency and productivity

| No. | FAESP indicators | | Explanatory notes |
|-----|---------------------------|------|---|
| 9 | Energy intensity (MJ/USD) | 4.54 | <i>The indicator tracks the amount of energy utilised to produce 1 USD of GDP.</i> |
| 10 | Productive power use (%) | 65% | <i>The indicator tracks the share of commercial and industrial use of electricity in total supply</i> The following analysis is based on Rarotonga only. |

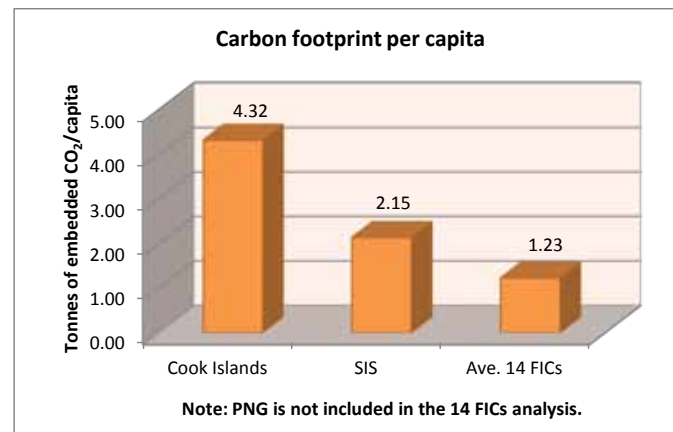
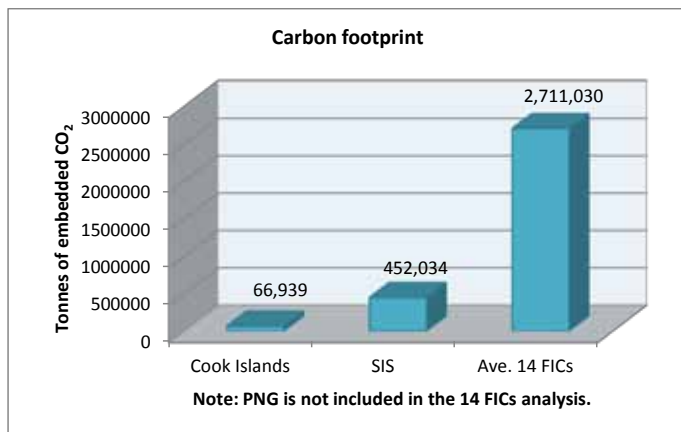


Provided below are energy intensity graphs that are presented in terms of electricity (kWh) and fuel (GJ) consumption against GDP when seen on a per capita comparison. Countries identified above the trend line are perceived to have higher than average energy consumption levels per person when compared against the corresponding economic wealth [GDP per capita]. In other words or simply speaking, countries above the trend line are considered to be relatively energy inefficient as compared to countries below the trend line.



FAESP key energy security outcome 4 – environmental quality

| No. | FAESP indicators | | Explanatory notes |
|-----|---|-----------|--|
| 11 | Carbon footprint (tonnes of CO ₂) | 66939 | <i>The indicator tracks total GHG emissions using embedded carbon as a measure (not UNFCCC method). Calculated only from petroleum imported into the country. Calculation used refers to embedded carbon and not UNFCCC method. Based on Cook Islands 2nd national communication report in 2006, Cook Islands produced 55075 tonnes CO₂.</i> |
| 12 | Diesel fuel quality (ppm S) | 5000 & 10 | <i>The indicator assesses the standard for sulphur (S) content of diesel fuel in parts per million (ppm) sulphur. Diesel with 5000ppm sulphur content is mainly imported into the country for electricity generation mostly at TAU in Rarotonga. The rest of the diesel fuel sold in petrol stations in the Cook Islands contains 10ppm Sulphur content.</i> |



FAESP action theme 1 – Leadership, governance, coordination and partnership

| No. | FAESP indicators | | Explanatory notes |
|-----|---|---|---|
| 13 | Status of energy administration (score) | 1 | <p><i>The indicator assesses the status the energy administration has in the country. (Score system: Energy ministry = 3; Energy department = 2; Energy office = 1)</i></p> <p>The Energy Division is within the Ministry of Works and deals with energy planning and policy, but staff devote more time to electrical inspections than energy. The Director usually reports to two ministers, with ministerial responsibilities related to energy scattered over a number of ministries with overlapping mandates. In 2011, a Renewable Energy Office was established under the Prime Minister's office; the former Energy Office remains under the Ministry of Infrastructure and now looks only at electrical standards.</p> |
| 14 | Energy legislation (score) | 3 | <p><i>The indicator assesses the status of the energy sector legislation in the country. (Score system: updated energy act = 3; Adopted energy policy = 2; Subsector act or policy = 1)</i></p> <p>Several acts with energy or related issues: 1) the Energy Act 1998 and regulation specifies the responsibilities of the Energy Division (to plan, promote and help develop energy, establish standards, review legislation, promote conservation, encourage research, monitor electricity tariffs, and monitor and approve quality of petroleum products and compliance with fuel standards) but provides no powers to enable the Division to carry out these functions effectively; 2) the TAU Act established a government-owned utility to generate and distribute electricity for Rarotonga, with no power legislation for other islands; 3) the Environment Act is applicable to Rarotonga, Aitutaki and Atiu, with no energy-specific provisions, although biomass use for energy is effectively restricted; 4) the Dangerous Goods Act addresses safe storage and handling petroleum fuels but there are no specific standards or inspection procedures; and 5) the Building Controls and Standards Act requires building permits for storage of 22,730 litres or more, but there are no conditions governing such permits. The Energy Chart is in consultation process. Government is undertaking a functional review of all government ministries, including the energy sector.</p> |
| 15 | Co-ordination and consultation (score) | 1 | <p><i>The indicator aims to measure how decisions and directions given at regional or subregional events translate into practical action at national level. (Score system : Meetings lead to relevant national action = 1; No action = 0)</i></p> <p>The Cook Islands actively participates in regional activities; is a utility member of PPA.</p> |

FAESP action theme 2 – Capacity development, planning, policy and regulatory frameworks

| No. | FAESP indicators | | Explanatory notes |
|-----|---|-----|---|
| 16 | Energy planning status (score) | 2 | <i>The indicator assesses the state/quality of energy planning. It distinguishes between integrated planning and subsector (i.e. power, petroleum) planning. (Score system: Whole of energy sector plan/roadmap operational with M&E framework = 3; Subsector plan operational with M&E framework = 2; Energy sector plans under preparation = 1)</i> Endorsed National Energy Plan and Action Plan, 2003. Te Aponga Operational Plan and Outer Islands Power Operational Plan are available. 2011 Energy Chart is in consultation process. Government is undertaking a functional review of all government ministries, including the energy sector. |
| 17 | Energy sector regulation (score) | 1 | <i>The indicator assesses the state of energy sector regulation. The indicator measures the progress towards regulator independent of government or regulated entities. (Score system: Independent whole of energy sector regulator established = 3; Whole of energy sector regulator established = 2; Subsector regulator established = 1)</i> Energy Act 1998, Energy Regulations 2006, Dangerous Goods Act 1984 and regulations 1985 (under review), Price Control Act 1966. |
| 18 | Enabling framework for private sector participation (score) | 1 | <i>The indicator assesses progress towards an enabling framework for private sector participation in selling electricity to the grid. (Score system: Standard power purchase and petroleum supply agreements operational = 3; Standard agreements for subsector operational = 2; Standard agreements in preparation = 1)</i> Net metering agreements have been in process since 2009, with close arrangements with TAU. All renewable energy installations need approval from TAU. The TAU net-metering policy was established to facilitate renewable energy development in Cook Islands. The intending RE grid connecting customer would size his/her installation to meet his/her own consumption needs. Established towards the end of 2009, it has proven very successful in encouraging private investment in renewable technologies — small scale wind and solar PV. The limitations of the existing network and generation plant will limit the capacity of RE that can be connected to the grid — the safe RE grid penetration level is believed to be about 20% of the peak demand; this is about 600 kW (based on the lower ceiling of 3 MW). |
| 19 | Private sector contribution (%) | n.a | <i>The indicator tracks the share of electricity produced by independent power producers under power purchase agreement.</i> No established figures were obtained for the associated contribution from net metering in 2009. |

FAESP action theme 3 – Energy production and supply

3.1 Petroleum and alternative fuels

| No. | FAESP indicators | | Explanatory notes |
|-----|--|-------|--|
| 20 | Fuel supply security (days) | 30 | <p><i>The indicator measures the number of days a country can keep operating in case of a petroleum product supply interruption. Calculation used if actual data is not available — (Size of total petroleum storage (m3)/Average petroleum product consumption per day).</i></p> <p>30 days actual fuel supply security since not all tanks are utilised. Based on existing storage tanks and recorded volume of fuel imported, Cook Islands has a theoretical fuel supply security of 90 days.</p> |
| 21 | Fuel supply diversity (%) | 0.05% | <p><i>The indicator measures the share of locally produced fuel (bio-fuel or fossil) as a percentage of total supply.</i></p> <p>A small volume of used vegetable is used in the Pacific Resort, blended with diesel. When compared to the national fuel imported into the country, biodiesel production utilised by the resort is miniscule.</p> |
| 22 | Fuel supply chain arrangements (score) | 0 | <p><i>The indicator assesses the control of countries over the fuel supply chain. (Score system: Joint procurement scheme operational = 2; Participation in preparation of joint procurement arrangements = 1)</i></p> <p>Cook Islands imports diesel for Rarotonga power and aviation gasoline via LCT from Fiji. The rest of fuel imported is from New Zealand in isotainers and ships' storage tanks. Possible unknown fuel imports from Tahiti.</p> |

3.2 Renewable energy

| No. | FAESP indicators | | Explanatory notes |
|-----|--|-------|--|
| 23 | Renewable energy share (%) | 0.03% | <i>The indicator measures the share of renewable energy as a percentage of total supply for a given year.</i> Listed percentage share of renewable energy is calculated from the solar PV systems and grid connected wind power systems in Mangaia, including the SHS in Pukapuka. |
| 24 | Renewable resource knowledge (score) | 1 | <i>The indicator assesses the quality of knowledge of national renewable energy potential. (Score system: Comprehensive assessment of all RE resources including cost for each source = 3; Comprehensive physical assessment of all RE resources = 2; Resource assessments fragmentary, under way = 1)</i> Reliable data on solar and wind regime available. Other renewable energy resources — biomass and ocean energy potentials — not explored. |
| 25 | Least-cost RE development plan (score) | 0 | <i>The indicator assesses if data and information on RE have been translated into a least-cost development plan that gives priority to the most economical RE resource or application. (Score system: Least-cost development plan operational = 2; Least-cost development plan in preparation = 1)</i> No specific least-cost development plan in place for Cook Islands in 2009. |

FAESP action theme 4 – Energy conversion

4.1 Electric power

| No. | FAESP indicators | | Explanatory notes |
|-----|------------------------------------|--------|---|
| 26 | Generation efficiency (kWh/l) | 3.81 | <i>The indicator measures the annual average fuel conversion efficiency for diesel generation in power utilities.</i> Referenced figure calculated is for Te Aponga in Rarotonga only. Referenced data falls on the financial year July 2009 to June 2010. |
| 27 | Distribution losses (%) | 11.59% | <i>The indicator compares the amount of kWh sold with the amount of kWh sent out from the power station.</i> Referenced figure calculated is for Te Aponga in Rarotonga only. Referenced data falls on the financial year July 2009 to June 2010. |
| 28 | Lost supply (SAIDI) — (hours) | 0.82 | <i>The indicator tracks electricity outage time (hours of lost supply per customer per year)</i> Referenced figure calculated is for Te Aponga in Rarotonga only. Referenced data falls on the financial year July 2009 to June 2010. |
| 29 | Clean electricity contribution (%) | 0.29% | <i>The indicator measures share of renewable energies as a percentage of total electricity supply.</i> Total renewable energy generated = 50 kW and total demand = 4084 kW. Please note this data is for Rarotonga only. |

FAESP action theme 5 – End-use energy consumption

5.1 Transport energy use | 5.2 Energy efficiency and conservation

| No. | FAESP indicators | Explanatory notes | | | |
|-----|-------------------------------|-------------------|--|--|---|
| 30 | | Retail price | Wholesale price | <i>The indicator tracks retail and wholesale fuel prices for petroleum products (diesel, petrol, MPK, LPG)</i> | |
| | Retail fuel prices | USD/l - ADO | 1.63 | 1.32 | Sourced from the Ministry of Internal Affairs |
| | | USD/l - ULP | 1.66 | 1.33 | Sourced from the Ministry of Internal Affairs |
| | | USD/l - DPK | n.a | n.a | Sourced from the Ministry of Internal Affairs |
| | | USD/kg - LPG | 3.15 | n.a | Sourced from the Ministry of Internal Affairs |
| 31 | Legislative framework (score) | 0 | <i>The indicator assesses progress towards a comprehensive legislative framework for import of end-use devices. (Score system: Comprehensive framework covering transport, appliances, buildings = 3; Legislative for one subsector operational = 2; Preparation of frameworks under way = 1)</i> No legislative framework or acts in place that promote the importation of energy efficient end-use devices in Cook Islands. | | |
| 32 | Appliance labelling (score) | 0 | <i>The indicator assesses state of appliance labelling.(Score system: Compulsory appliance labelling operational = 2; Appliance labelling in preparation = 1)</i> No appliance labelling programme in process. Most of the appliances imported to Cook Islands are from New Zealand and carry the Australian and New Zealand MEPS. | | |

FAESP action theme 6 – Energy data and information

| No. | FAESP indicators | | Explanatory notes |
|-----|---|---|---|
| 33 | Availability of national energy balance (score) | 0 | <i>The indicator assesses availability of national key energy data to SPC data management unit and other regional stakeholders. (Score System: Comprehensive data sets covering energy input conversion and end use available 6 months after end of reporting year = 3; Partial data set available within 6 months = 2; Partial data set available within 12 months = 1)</i> Energy datasets available are fragmented — Electricity production and supply data for TAU available, selected petroleum data with the availability of a number of assessment reports. |

FAESP action theme 7 – Financing, monitoring & evaluation

| No. | FAESP indicators | | Explanatory notes |
|-----|---|-----------------|--|
| 34 | Energy portfolio (USD) | \$14,244,600.00 | <p><i>The indicator tracks the flow of funding into the country's energy sector. Grant aid commitments + loan commitments</i></p> <p>Outer Islands Grant + RE projects as of 2011. The Government estimated a cost of USD 229 million to achieve 100% RE by 2020.</p> |
| 35 | Availability of financing information (score) | 2 | <p><i>The indicator assesses the availability of national energy financing information to SPC and other regional stakeholders. (Score system: Comprehensive set of information covering petroleum, utility and government financing = 3; Partial information set available within 6 months = 2; Partial information set available within 12 months = 1)</i></p> <p>Comprehensive set of information on funding activities available with the Renewable Energy Office and the Energy Division. Detailed financial documents and acquittals will be available within 6 months.</p> |
| 36 | Monitoring framework (score) | 0 | <p><i>The indicator assesses if there is a national energy sector M&E framework in place. (Scoring system: M&E framework in place = 1, No M&E framework = 0)</i></p> <p>No specific M&E framework has been developed for Cook Islands. Selected M&E activities available are the on the ground, funded projects that have their set of reporting procedures to comply with.</p> |

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