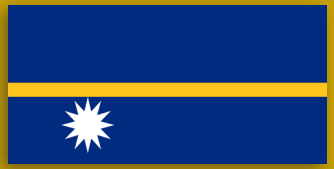


Nauru

Country Energy Security Indicator Profile 2009

SPC
Secretariat
of the Pacific
Community

euei pdf
energy for development

Nauru Country Energy Security Indicator Profile 2009

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

© Copyright Secretariat of the Pacific Community (SPC), 2012

All rights for commercial / for profit reproduction or translation, in any form, reserved. SPC authorises the partial reproduction or translation of this material for scientific, educational or research purposes, provided that SPC and the source document are properly acknowledged. Permission to reproduce the document and/or translate in whole, in any form, whether for commercial / for profit or non-profit purposes, must be requested in writing. Original SPC artwork may not be altered or separately published without permission.

Original text: English

Secretariat of the Pacific Community Cataloguing-in-publication data

Nauru Country Energy Security Indicator Profile 2009 / prepared by the Energy Programme, Economic Development Division, Secretariat of the Pacific Community

1. Energy policy – Nauru.
2. Power resources – Nauru.
3. Energy security – Nauru.

I. Title. II. Secretariat of the Pacific Community.

333.79099685 AACR2

ISBN: 978-982-00-0552-5

Table of contents

Acknowledgement

The *Framework for Action on Energy Security in the Pacific* (FAESP) country energy security indicator report 2009 was prepared by the Energy Programme of the Economic Development Division (EDD) of the Secretariat of the Pacific Community (SPC).

Many special thanks to the Nauru Utilities Corporation; the Aid Management Unit and the Statistics Office in the Ministry of Finance and Economic Planning; the Ministry of Home Affairs; the Ministry of Commerce, Industry and Environment; and the participants of the Nauru National Energy Policy and Planning Workshop for their assistance in-country with data collection and follow-up.

SPC would also like to thank the European Union Energy Initiative – Partnership Dialogue Facility for providing funds to carry out in-country technical activities and collect data for the energy security indicators. The project — Gender Equity in Climate Change Adaptation and Low Carbon Development — is also acknowledged and thanked for its contribution to supporting the in-country technical activities.

The cooperation of the many contributors to this booklet is gratefully acknowledged. The source note below each table credits the various government and private sector agencies that have collaborated in furnishing the information for the booklet.

Foreword

Solomone Fifita
DeputyDirector (Energy)
Economic Development Division, SPC

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 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
Deputy Director (Energy), Economic Development Division, SPC

Abbreviations

ADB	Asian Development Bank
ADO	automotive diesel oil
ARM	Atmospheric Radiation Measurement
AUD	Australian dollar
AusAID	Australian Government Overseas Aid Programme
Ave.	average
CO2	carbon dioxide
DPK	dual purpose kerosene
e.	estimate
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	gigajoules
GoN	Government of Nauru
GWh	gigawatt-hour
HIES	house income and expenditure survey
IPP	independent power producer
kWh	kilowatt-hour
kWp	kilowatt peak
km	kilometre
LPG	liquefied petroleum gas
MJ	megajoule
MEPS	minimum energy performance standard
n.a	(data) not available
N/A	(indicator) not applicable
NNEPF	Nauru National Energy Policy Framework
Non-SIS	Non-Forum small island state members – Fiji, FSM, PNG, Samoa, Solomon Islands, Tonga & Vanuatu
NUC	Nauru Utilities Corporation
PPA	Pacific Power Association
ppm	parts per million
PRISM	Pacific Regional Information System, Statistics for Development at the Secretariat of the Pacific Community
PIGGAREP	Pacific Islands Greenhouse Gas Abatement through Renewable Energy Project
PV	photo voltaic
RE	renewable energy
REP-5	'Support to the Energy Sector in Five ACP Pacific Island countries' programme funded by the European Union
Ronphos	Republic of Nauru Phosphate Corporation
SHS	solar home systems
UNDP	United Nations Development Programme
UNFCCC	United Nations Framework Convention on Climate Change
USD	United States dollar

Country profile

Nauru National Energy Policy Framework Vision 2008
'Reliable, affordable and sustainable energy, enabling the socio-economic development of Nauru.'

Country	Nauru
Capital	Yaren District
Capital island	Nauru
Population	9771 (PRISM 2009 projection, 51% males); 9,233 (2006 census)
Land Area	21 km^2
Max height above sea-level	70 m (location along plateau ring)
Geography	Nauru consists of a single raised coral island with a phosphate plateau in the centre. There are two separate plateau areas: 'bottom side' that is a few metres above sea-level and 'topside' that is typically 30 metres higher. Topside is dominated by pinnacles and outcrops of limestone. There are no natural harbours and the island is surrounded by a fringing reef 120–400 metres wide. The reef falls off very rapidly and deep-water ships can moor within a short distance of the reef edge.
Location	Latitude: 0° 32' S. Longitude: 166° 55' E
EEZ	320 000 km^2

Climate	Nauru has a tropical climate that is tempered by sea breezes. There are no cyclones, though rainfall is cyclic and periodic droughts are a serious problem.
Rainfall	Annual precipitation has ranged from severe drought at 280 mm to very wet at 4590 mm, making water supply a particularly difficult problem.
Mean temperature	29°C
Economic	Nauru's economy mainly revolves around phosphate mining. The sale of fishing rights in Nauru's territorial waters is another major form of income. Apart from these, Nauru relies heavily on Australia for financial support. New Zealand and Taiwan/ROC also provide aid support.
GDP per capita	USD 5,632.69
Currency	Australian dollar – AUD
Exchange rate	AUD/USD – $0.7919
Language	English and Nauruan
Government	Republic with parliamentary system
Country representative to SPC	Secretary for Foreign Affairs & Trade Department of Foreign Affairs & Trade Government Offices Yaren District Tel: (674) 557 3133 Fax: (674) 557 3199 Email: michael.aroi@naurugov.nr

Energy context

In 2009, an estimated 99.95% of total energy consumed in Nauru was supplied from imported petroleum products, with the remaining 0.05% met by solar power. Diesel and petrol are the two main petroleum products consumed in Nauru for electricity generation (diesel only), transportation and meeting the energy needs of the phosphate mining company — Ronphos. Energy for domestic needs such as cooking and lighting is mainly supplied by electricity. Liquid petroleum gas (LPG) for household cooking has slowly increased over the years. In 2009, around 9.45 tonnes of LPG were imported. There is also a small use of biomass for cooking.

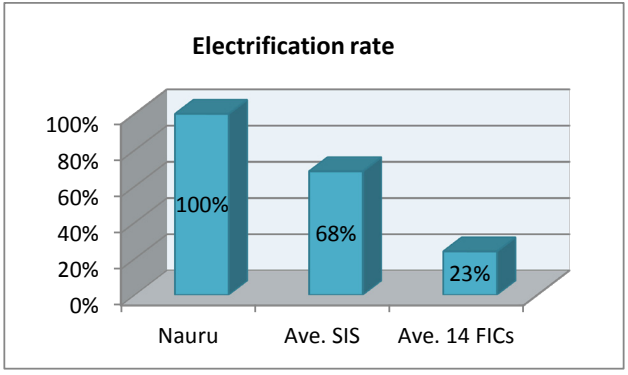
In 2009, around 11.7 million litres of diesel and 2.2 million litres of petrol were imported. The fuel import bill for 2009 was estimated at AUD 4.7 million with the current GDP of AUD 29.2 dollars. For the power sector, Nauru is unique in that domestic customers had access to free electricity from the early 1980s, when phosphate mining was at its highest, until 2003. The island was fully electrified with 100% access to the grid. Electricity consumption per capita was the highest in the region. However, as a result of culminating economic challenges following the drop in revenue from phosphate mining and the lack of reforms in the power infrastructure (low capacity, poor management, inadequate maintenance, low tariffs and low revenue collection), Nauru in 2003 began facing power supply problems, which resulted in frequent power cuts and led to a regime of four-hourly power shedding from 2003 to 2009. During this period, NUC was heavily reliant on AusAID for payment of generation fuel costs and assistance in the supply of containerised diesel generators.

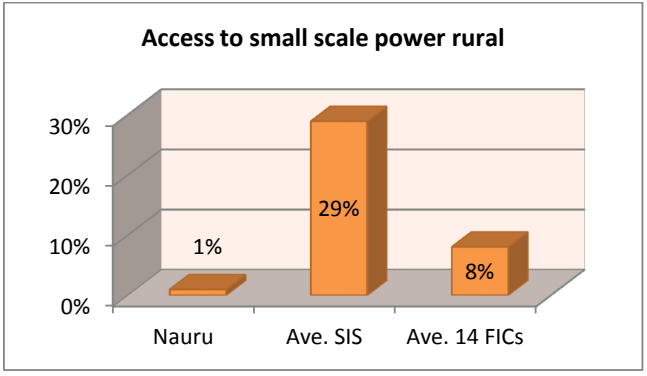
During the period 2008–2009, through the REP-5 programme, power sector improvement activities were undertaken in Nauru. They included energy efficiency activities covering energy auditing and awareness campaigns to accompany the introduction of pre-payment meters in 2009 to help improve revenue collection at NUC, reduce energy demand and help customers manage their energy use more efficiently. Following the introduction of the prepayment meters, demand in electricity consumption dropped significantly and this greatly assisted the restoration of the twenty-four-hour power supply later in the year. In 2009, Nauru generated 17 GWh of electricity, of which 0.3% was supplied by the 40kW grid-connected solar photo voltaic (PV) system at Nauru College.

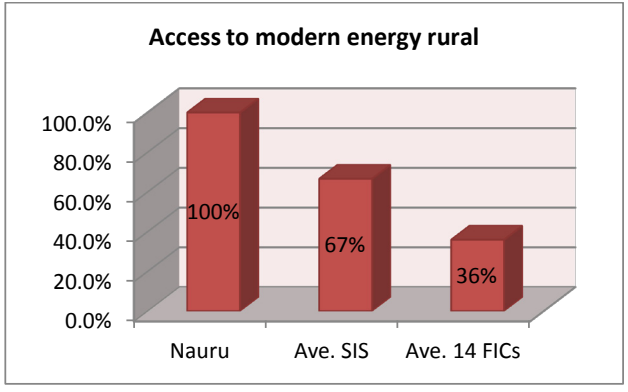
The 2009 baseline energy security indicators presented in this report are compiled and structured according to the four key energy security outcomes and the seven action themes of FAESP. Graphical comparison included in the analysis provides a snapshot of Nauru's situation compared to other Forum small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

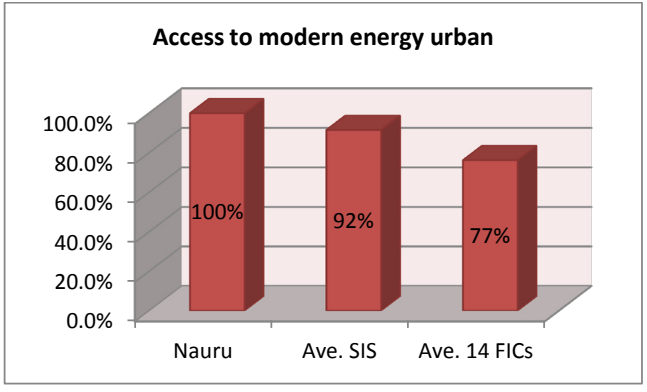
FAESP key energy security outcome 1 – access to energy

No.	FAESP indicators		Explanatory notes
1	Electrification rate (%)	100	*The indicator tracks the proportion of households actually connected to a utility grid.* Nauru has an electricity grid system that covers the entire island with a 100% electrification rate.
2	Access to small scale power rural (%)	1	*The indicator tracks the proportion of rural households with access to basic electrification (solar, pico hydro, small wind, community grid).* From 2004 to 2009, Nauru experienced frequent power black outs and scheduled power shedding. During power black outs, torches and other small scale power supply units were commonly used. In the HIES study in 2006, it was reported that around 1% of the population had access to small generators and solar home systems.
3	Access to modern energy rural (%)	100	*The indicator tracks the proportion of rural households with access to modern cooking and lighting. It specifically covers all forms of energy other than traditional biomass.* Rural in this context includes all the districts in Nauru except Yaren. The Island of Nauru is well developed, with all rural households having access to all modern forms of energy.
4	Access to modern energy urban (%)	100	*The indicator tracks the proportion of urban households with access to modern cooking and lighting. It specifically covers all forms of energy other than traditional biomass.* Urban in this context includes Yaren District only. All urban households have access to all modern forms of energy.


Electrification rate
100%
80%
60%
40%
20%
0%
100%
68%
23%
Nauru
Ave. SIS
Ave. 14 FICs


Access to small scale power rural
30%
20%
10%
0%
1%
29%
8%
Nauru
Ave. SIS
Ave. 14 FICs


Access to modern energy rural
100.0%
80.0%
60.0%
40.0%
20.0%
0.0%
100%
67%
36%
Nauru
Ave. SIS
Ave. 14 FICs

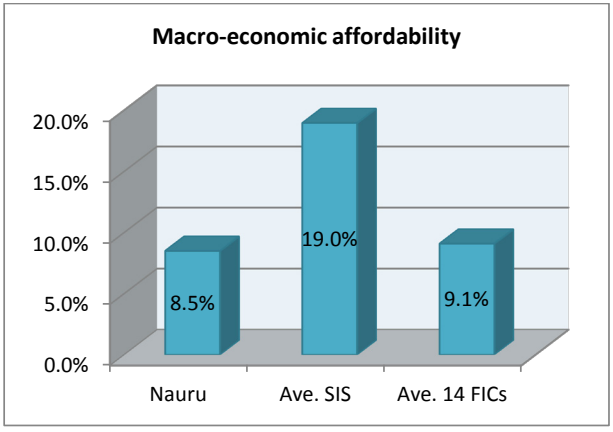

Access to modern energy urban
100.0%
80.0%
60.0%
40.0%
20.0%
0.0%
100%
92%
77%
Nauru
Ave. SIS
Ave. 14 FICs

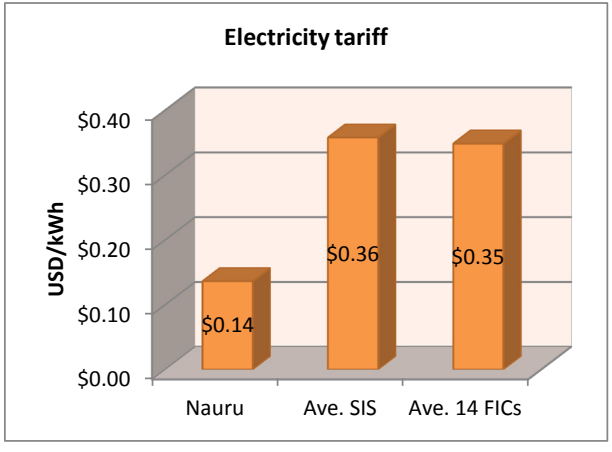
FAESP key energy security outcome 2 – affordability

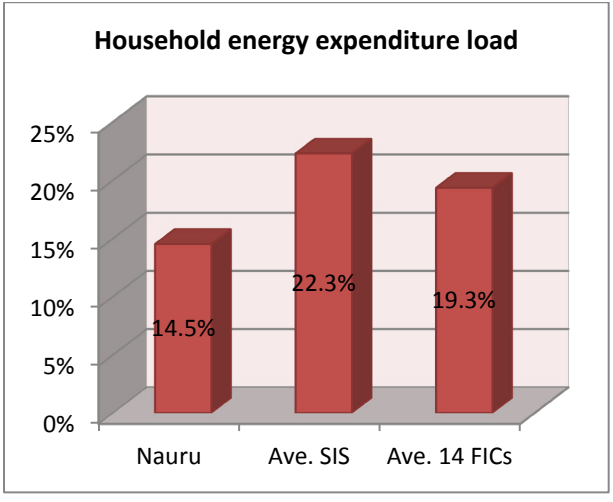
No.	FAESP indicators		Explanatory notes
5	Macro-economic affordability	8.5	*The indicator tracks fuel imports as a percentage of GDP. The higher the figure, the more vulnerable an economy is towards world market price volatility.* The following figure was calculated from reference data sourced from NUC and the Nauru Bureau of Statistics website. Total value of fuel imports over total GDP for 2009 is calculated at 8.5%. (USD 4,678,963/USD 55,037,050). Fuel imports measured were accounted from ADO, DPK, Petrol and LPG.
6	Electricity tariff (USD/kWh)	0.14	*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 PICTs are adjusted several times a year.* Refer to the calculated table on the right for reference calculation of the average tariff.
7	Electricity lifeline (%)	43.55	*Relation between average tariff and lifeline tariff if a lifeline tariff exists.* NUC via the REP-5 programme in 2009, introduced pre-paid meters in Nauru. This was undertaken with a resetting of the tariff calculation to include a lifeline tariff that is highly subsidised.
8	Household energy expenditure load (%)	14.50	*The indicator tracks average household expenditure for energy per year as a percentage of average household income.* Sourced from HEIS 2006 report. Transport costs and household bills were classed as energy expenditure. (USD 782/USD 5394)

Electricity tariff		0.14
Commercial block	USD/kWh	0.16
Industrial block	USD/kWh	0.16
Residential block	USD/kWh	0.09
1-100 kWh	USD/kWh	0.04
101-300	USD/kWh	0.08
>301	USD/kWh	0.16
Lifeline	%	43.55%

Referenced electricity tariff calculation based on Niue Power Corporation data

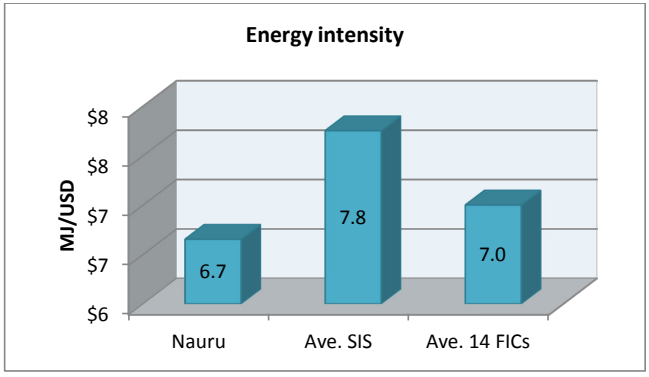

Macro-economic affordability
20.0%
15.0%
10.0%
5.0%
0.0%
8.5%
19.0%
9.1%
Nauru
Ave. SIS
Ave. 14 FICs

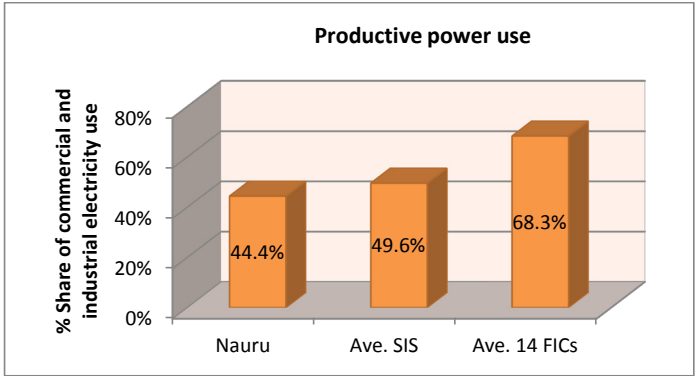

Electricity tariff
USD/kWh
$0.40
$0.30
$0.20
$0.10
$0.00
$0.14
$0.36
$0.35
Nauru
Ave. SIS
Ave. 14 FICs


Household energy expenditure load
25%
20%
15%
10%
5%
0%
14.5%
22.3%
19.3%
Nauru
Ave. SIS
Ave. 14 FICs

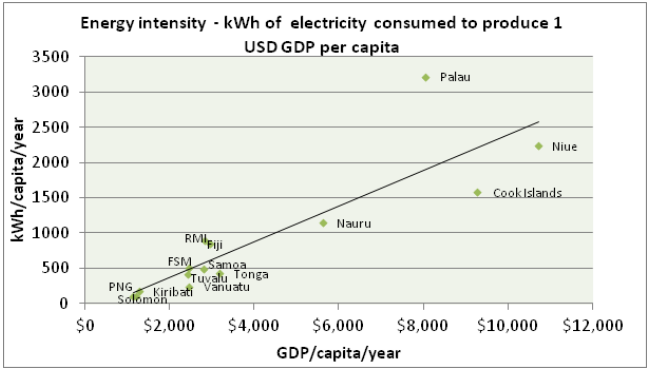
FAESP key energy security outcome 3 – efficiency and productivity

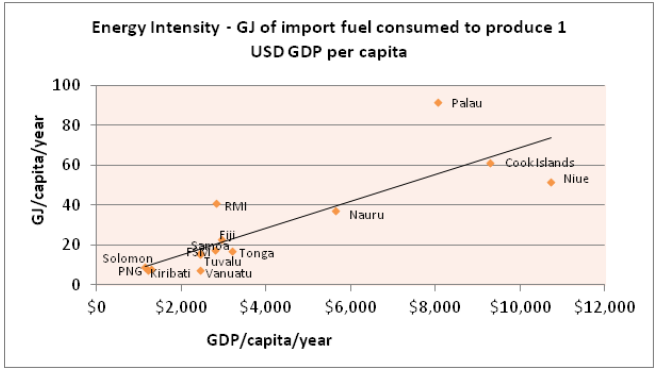
No.	FAESP indicators		Explanatory notes
9	Energy intensity (MJ/ USD)	6.7	*The indicator tracks the amount of energy utilised to produce 1 USD of GDP.*
10	Productive power use (%)	44.40	*The indicator tracks the proportion of commercial and industrial use of electricity in total supply.*





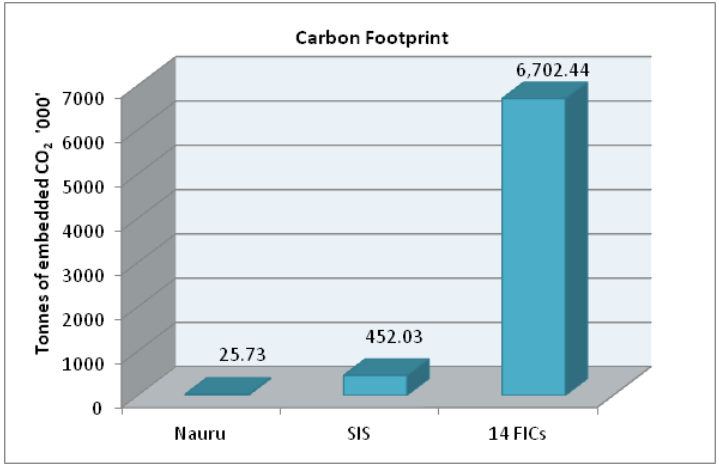
Provided are energy intensity graphs that are presented in terms of electricity (kWh) and fuel (GJ) consumption against GDP when seen on a per capita comparison. Countries identified above the trend line are perceived to have higher than average energy consumption levels per person compared to its corresponding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

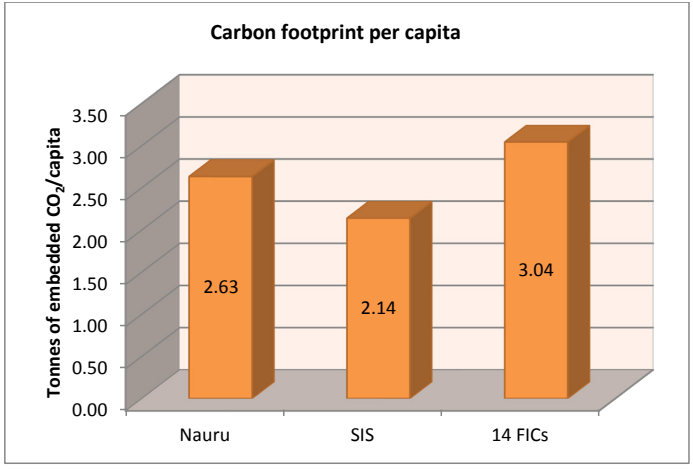




FAESP key energy security outcome 4 – environmental quality

No.	FAESP indicators		Explanatory notes
11	Carbon footprint (tonnes of CO_2)	25,735	*The indicator tracks total GHG emissions using embedded carbon as a measure (not UNFCCC method).* Calculated only from petroleum imported into the country. Specific in-country fuel consumption data were not available.
12	Diesel fuel quality (ppm S)	500 ppm	*The indicator assesses the standard for sulphur content of diesel fuel in parts per million (ppm) sulphur.*





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

No.	FAESP indicators		Explanatory notes
13	Status of energy administration (score)	0	*The indicator assesses the status the energy administration has in the country. (Score system: Energy ministry = 3; Energy department = 2; Energy office = 1)* There is currently no established energy office or department in Nauru. The Ministry of Commerce, Industry and Environment oversees the administration and energy policy work. Implementation of energy activities is undertaken by the Nauru Utilities Corporation. NUC is responsible for the supply of electricity and petroleum fuels, except LPG.
14	Energy legislation (score)	2	*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)* No specific energy act or legislation is in place for Nauru. However, Nauru has a National Energy Policy Framework that was endorsed in 2008. There is also a Nauru National Sustainable Development Strategy (2005–2025), which has associated energy targets and is the overall strategic guiding document for all sectors, including energy.
15	Co-ordination and consultation (score)	1	*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)* Nauru actively participates in regional activities; is a utility member of PPA.

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

No.	FAESP indicators		Explanatory notes
16	Energy planning status (score)	1	*The indicator assesses the state/quality of energy planning. 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)* No implementation plan is available for the Nauru National Energy Policy Framework. As part of the development of the Nauru National Energy Policy Framework document, a draft implementation plan was developed but was not endorsed. Likewise in 2009, as part of the REP-5 programme assistance, Nauru developed its Energy Efficiency Action Plan which also has not become operational.
17	Energy sector regulation (score)	1	*The indicator assesses the state of energy sector regulation. It measures the progress towards regulation 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)* Energy sector regulator is not independent. No whole of energy sector regulator established. Ministry of Justice department issues licenses for retail outlets only and Ministry of Finance regulates the fuel prices.
18	Enabling framework for private sector participation (score)	0	*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 under preparation = 1)* No framework is in place for the inclusion of independent power producers (IPPs).
19	Private sector contribution (%)	0	*The indicator tracks the proportion of electricity produced by independent power producers under power purchase agreement.* In 2009, there were no established IPPs in Nauru, so contribution from IPPs to the utility is zero. Similar trend shown in 2010 and 2011.

FAESP action theme 3 – Energy production and supply

3.1 Petroleum and alternative fuels

No.	FAESP indicators		Explanatory notes
20	Fuel supply security (days)	73	*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 are not available — (Size of total petroleum storage (m^3)/average petroleum product consumption per day).* Nauru's tank farm has a capacity of 17,300 kilolitres and consumption for 2009 was 9,604 kilolitres with average consumption per day at 26 litres. Hence, theoretically Nauru is looking at 658 days. However, the tank farm is never at full capacity. Therefore, the value given is based on Nauru fuel forecast data, which show Nauru as having an average of 73 days of fuel supply security.
21	Fuel supply diversity (%)	0	*The indicator measures the proportion of locally produced fuel (biofuel or fossil) as a percentage of total supply.* Petroleum products are predominantly the main fuel source used in Nauru. No biofuel development project has been implemented in Nauru.
22	Fuel supply chain arrangements (score)	1	*The indicator assesses control of countries over fuel supply chain. (Score system: Joint procurement scheme operational = 2; Participation in preparation of joint procurement arrangements = 1)* Nauru was part of the Forum Small Island States initiative to develop bulk fuel purchasing agreements in 2009. However, a final agreement has not eventuated. In 2009, Nauru mainly imported fuel from South Korea SK and Mobil Exxon.

3.2 Renewable energy

No.	FAESP indicators		Explanatory notes
23	Renewable energy share (%)	0.05	*The indicator measures the proportion of renewable energy as a percentage of total supply for a given year.* The contribution from renewable energy was calculated using the grid-connected solar PV system at Nauru College. No other significant contribution from RE is available.
24	Renewable resource knowledge (score)	1	*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)* Reliable solar monitoring data available at the Atmospheric Radiation Measurement (ARM) programme. Through PIGGAREP, Nauru installed a wind monitoring tower in 2009. Other renewable energy resources: biomass and ocean energy potentials not fully explored.
25	Least-cost RE development plan (score)	0	*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 under preparation = 1)* No least-cost development plan is in place.

FAESP action theme 4 – Energy conversion

4.1 Electric power

No.	FAESP indicators		Explanatory notes
26	Generation efficiency (kWh/l)	2.5	*The indicator measures the annual average fuel conversion efficiency for diesel generation in power utilities.* The referenced figure was calculated from the total electricity generated in 2009, divided by the total litres of ADO use by the power utility. Source: NUC.
27	Distribution losses (%)	34	*The indicator compares the amount of kWh sold with the amount of kWh sent out from the power station.* Following losses are estimated from the 2008 billed and generation units.
28	Lost supply (SAIDI) – (minutes)	n.a	*The indicator tracks electricity outage time (hours of lost supply per customer per year)* Data are not recorded, as power outages (four-hourly load shedding) occurred frequently in Nauru in 2009.
29	Clean electricity contribution (%)	0.3	*The indicator measures the proportion of renewable energies as a percentage of total electricity supply.* The percentage provided is calculated from the 40 kW grid connected solar PV systems at Nauru College by the REP-5 programme, which produced 52,735 kWh of electricity in 2009.

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	*The indicator tracks retail and wholesale fuel prices for petroleum products (diesel, petrol, MPK, LPG)*
	Retail fuel prices	USD/l - ADO	1.55	1.27	Referenced data sourced from NUC
		USD/l - ULP	1.46	1.22	Referenced data sourced from NUC
		USD/l - DPK	n.a	n.a	Nauru stopped importing DPK in 2008 and 2009. Referenced data sourced from NUC
		USD/kg - LPG	5.28	n.a	Referenced data sourced from Central Meridian
31	Legislative framework (score)		0		*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 framework for one subsector operational = 2; Preparation of frameworks under way = 1)* No energy legislative frameworks are in place that regulate the importation of energy-efficient end-use devices. Indicative responsibilities mentioned in the Nauru National Energy Policy Framework under the key policy area of energy efficiency to 'encourage at all levels the use of energy-efficient appliances and equipment'.
32	Appliance labelling (score)		0		*The indicator assesses the state of appliance labelling.(Score system: Compulsory appliance labelling operational = 2; Appliance labelling under preparation = 1)* No compulsory appliance labelling programme. Appliance market imports are predominantly from Australia. Most appliances carry 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	*The indicator assesses the 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)* No national energy balance available. Energy datasets available are fragmented with irregular data reporting.

FAESP action theme 7 – Financing, monitoring and evaluation

No.	FAESP indicators		Explanatory notes
34	Energy portfolio (USD)	4,830,000	*The indicator tracks the flow of funding into the region's energy sector.* Funding support to Nauru's Energy sector is mainly through Ausaid where for the period of 2011-2012, AUD $4.68 million was allocated for Infrastructure and Services. Funding assistance targeted rehabilitating and maintaining utilities facilities, and funding the supply of diesel fuel. Conversion to 2011 OANDA currency exchange equates to 4.83 Million. No data was available from other developments partners/organisation on their contribution to the energy sector such as ADB, EU and Taiwan.
35	Availability of financing information (score)	1	*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)* Not readily available within the Ministry of Commerce, Industry and Environment. All funding is centralised at the Ministry of Finance.
36	Monitoring framework (score)	0	*The indicator assesses if there is a national energy sector M&E framework in place. (M&E framework in place = 1, No M&E framework = 0)* No specific monitoring and evaluation framework is in place. Selected monitoring and evaluation activities available on funded projects – REP-5.

Nauru energy contacts

Nauru Utilities Corporation	**Valance Olsson** Renewable Energy Officer **Tel:** [674] 444 3247 **Fax:** [674] 444 3521 **Email:** olssonvalance@yahoo.com
Bureau of Statistics	**Ipia Gadabu** Director **Email:** statistics@naurugov.nr
Ministry of Commerce Industry and Environment	**Bryan Star** Director of Project **Tel:** [674] 444 3133 ext 221 **Fax:** [674] 444 3136 **Email:** bryan.star@naurugov.nr Min.cie@naurugov.nr