



Pacific Centre for Renewable Energy and Energy Efficiency

SE4ALL Centre of Excellence to Promote Sustainable Energy Markets, Industries and Innovation

Pacific Centre for Renewable Energy and Energy Efficiency & Te Aponga Uira joint workshop on Electric Mobility

Cook Islands Red Cross Society Hall, Rarotonga

13th June 2024

THE REGIONAL E-MOBILITY PROGRAM



THE PACIFIC COMMUNITY - SPC

1. Principal scientific and technical organisation in the Pacific
2. Established in 1947
3. Owned and governed by 27 country and territory members
4. Work in more than 20 sectors - Health, Agriculture, Fisheries, Statistics, Human Rights, Culture, Youth, Water Security including Energy and Transport
5. Established the PCREEE in Tonga in 2017





Global Network
Regional Sustainable
Energy Centres



[The Network](#)

[News & Events](#)

[Media](#)

[Jobs](#)

[Procurements](#)

[Projects](#)

[Resources](#)

[Contact](#)

GN SEC

Global Network
Regional Sustainable
Energy Centres

Driving the energy transition from the region for the region!

CCREEE

CARIBBEAN CENTRE FOR
RENEWABLE ENERGY & ENERGY EFFICIENCY

CECECO

PREPARATORY PROCESS FOR
CLEAN ENERGY CENTRE OF THE ECONOMIC
COOPERATION ORGANISATION
- under construction -

CEREEAC

ECCAS CENTRE
FOR SUSTAINABLE ENERGY
- under construction -

EACREEE

EAST AFRICAN CENTRE FOR
RENEWABLE ENERGY & ENERGY EFFICIENCY

ECREEE

ECOWAS CENTRE FOR
RENEWABLE ENERGY & ENERGY EFFICIENCY

OLADE

LATIN AMERICA
ENERGY ORGANIZATION

PCREEE

PACIFIC CENTRE FOR
RENEWABLE ENERGY & ENERGY EFFICIENCY

RCREEE

REGIONAL CENTRE FOR
RENEWABLE ENERGY & ENERGY EFFICIENCY

REEECH

RENEWABLE ENERGY &
ENERGY EFFICIENCY CAPABILITY
FOR THE MIDDLE EAST AND NORTH AFRICA

SACREEE

SADC CENTRE FOR
RENEWABLE ENERGY & ENERGY EFFICIENCY

SICREEE

SICA CENTRE FOR
RENEWABLE ENERGY & ENERGY EFFICIENCY

GLOBAL CLIMATE TARGETS AND EVs

- Heavy dependence of the region on fossil fuel
- Major fossil fuel users are electricity generation and transportation
- 1.5° C to survive, net zero emissions by 2050
- Very ambitious renewable electricity generation targets
- Transport to be in the formula
- Emobility is one of the options
- A bonus for transport to run on renewable electricity

4th PETMM Direction in 2019

- Request SPC/PCREEE, UNIDO and SIDS DOCK to develop a **regional e-mobility program**.
- The program will address existing barriers by promoting regional interventions in the areas of (i) policy and regulation, (ii) knowledge management, (iii) qualification / certification, as well as (iv) the promotion of investment, entrepreneurship and innovation.



What a Regional Program should do

1. Provide back-up support to national effort
2. Consistent with, strengthen and improve
3. Does not prescribe the technology
4. Package needs of multiple countries
5. Flexible, leave no one behind

Barriers to E-mobility

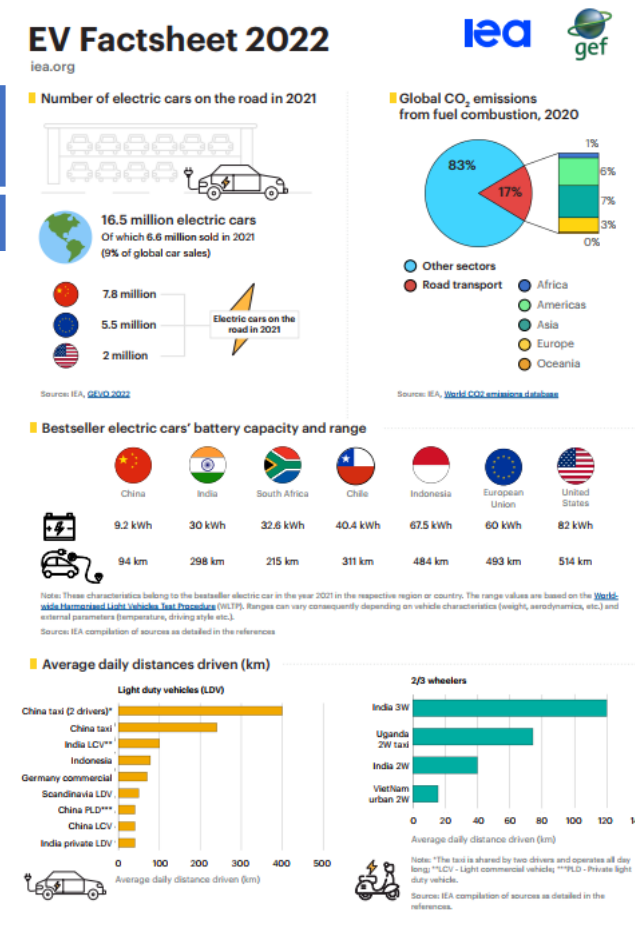
EVs are new to PICTs and there are many barriers with associated with this “newness” including:

- a lack of mandate to drive EV policy (opportunities in the revisions of NDCs and Energy Roadmaps);
- a lack of supporting institutional and regulatory framework
 - LTAs deal mostly with vehicle registration while Mol/MoT deal with roads and bridges and Police deals with enforcing the traffic laws.
 - In some countries, EVs do not fall into any of the vehicle categories, making it difficult to register them.
 - Duty is based on engine size and no regards to the fuel type
- absence of standards is a safety hazards and could ruin the reputation of the technology
- a lack of charging infrastructure
- a lack of technical support capability and capacity
- a general lack of awareness of EVs (& market access).

Summary of Target Actions of the Regional EV Program

1. Central Policy and Administration

1. Develop high-level targets and mandates concerning EV uptake.
2. Establish a staffed and funded Regional EV Hub with regional representatives – **established a Pacific Islands EV Working Group**
3. Identify tax levels or incentive packages to encourage the importation of desired EV goods.
4. Establish partnerships in EVs – **PCREEE & CCREEE Collaboration.**
5. Develop a M & E system for national EV programmes.
6. As appropriate, introduce/amend the regulatory frameworks for transport to include EVs. **Ashurst legal assessments in Tonga, Vanuatu & Kiribati. Legal study in Fiji.**
7. Maintain a watching brief on global EV-related developments. – **Leaflets and EV factsheets**



Summary of Target Actions of the Regional EV Program

2. Standards & Guidelines

1. Develop and set minimum standards for EVs imports and for fitness testing.
Generally led by the PRIF. Regional workshop in Oct / Nov
2. Ensure appropriate standards are in place for the retirement of EVs.
3. Set guidelines for charging, including the specification of charging connectors.
4. Develop criteria "EV-readiness" in new construction and infrastructure.
5. Develop guidelines for the use of V2H and on-site managed charging.
6. Develop (at least voluntary) standards for low-voltage vehicles, the charging of them, and the use of "mobility batteries" for local power supply circuits.
7. Develop and introduce accredited technical courses on EVs. **Initial workshop in 2023**
8. Develop guidelines for e-mobility safety.
9. Provide buyer and user guides on low-voltage e-mobility options.

Summary of Target Actions of the Regional EV Program

3. Awareness & Promotion

1. Undertake social marketing research.
2. Develop and deliver an awareness, information and promotion campaign supporting the uptake of EVs. **Samoa Energy Week 2021, national workshops / webinars in CI, Niue, Kiribati, Tuvalu, SI, etc**
3. Develop, publish and promote guidelines on:
 - EV purchase (micro-mobility through 4-wheelers);
 - Charging (micro-mobility through 4-wheelers);
 - Servicing and Support (micro-mobility through 4-wheelers).
4. Collate and distribute global and PICT EV information. **Leaflets & factsheets**
5. Ensure that first responders are aware of correct procedures.

Summary of Target Actions of the Regional EV Program

4. Demonstration & Upscale

1. Promote government leadership in purchasing of appropriate EVs.
2. Consider supporting electric bus demonstrations. **Nauru – Auck EV bus fleet**
3. Consider supporting the demonstration of other non-passenger car EV projects if there is a good case for them.
4. Consider methods to share heavy EV technical support capability across fleets and PICTs.
5. Consider opportunities for the electrification of small marine vessels. **Done by SPC Maritime Programme in Fiji**
6. Facilitate or co-invest in public charging infrastructure.
7. Provide facilities in support of micro through large e-mobility options, beginning with facilities at public offices.
8. Develop EV service industry and support local capability and capacity. – **TAU TA**
9. (Support the introduction of Time of Use (TOU) electricity pricing).
10. Conduct investment forums on EVs – **Vanuatu, Kiribati & Tuvalu**

OTHERS

- Funded by ADA and NZ MFAT
- Supported by UNIDO and the GN-SEC
- Partner with GGGI, WB, US NREL & PRIF
- Begin with an email – solomonef@spc.int / info@pcreee.org
- Agree on a Concept Note
- Initial contact to confirmation of delivery can be done in 2 weeks

MALO 'AUPITO