Draft Programme

Tentative Agenda
Rarotonga, Cook Islands 20 -23rd April 2026

Day 1: Monday 20th April 2026

TIME	TOPICS	Facilitator /Presenter
08:30 – 0900	Registration	
0900 - 0920	Opening Prayer	Cook Is participant
	Welcome and Opening Remarks	TAU
	Remarks from SPC	SPC /PCREEE
0920 – 09:30	Setting the Scenes: Introduction, views and concerns regarding e-mobility	All – to be facilitated by PCREEE
09:30 – 10:00	Morning Tea	
10:00 – 10:30	Session 1: Energy Sector Overview in the Cook Islands: • E-mobility – current status and future vision	Taina Iro, Deputy Director – Ministry of Finance and Economic Management - confirmed
10:30 – 11:00	Session 2: The PCREEE regional e-mobility programme – progress to date, known Emobility demo/pilot projects in the PICs	PCREEE
11:00 – 11:30	Session 3: Where are we going and why? • E-mobility development – globally • A framework for a regional EV roadmap	PCREEE Consultant – Andrew Campbell.
11:30 – 12:30	Session 4: Country presentation - Part 1 • Fiji • RMI • Nauru	PICs representatives
12:30 – 13:30	**Lunch and discussions**	
1330 – 1600	Session 4 'con't: Country presentation - Part 2 • Samoa • Solomon Islands • Tonga • Vanuatu	PICs representatives
1600 – 1630	Wrap up and final discussions	ALL

Day 2: Tuesday 21st April 2026

TIME	TOPICS	
0900 - 0910	Opening Prayer	TAU
0910 - 1000	*con't country updates"	Andrew
1000 - 1030	**Morning Tea**	
1030 - 1100	GGGI E-mobility Project (Virtually)	Anant Jha
1100 - 1130	Sum up of the country updates and stocktake	Andrew

1130 - 1300	A foundation on EVs	Andrew
1300 - 1400	**Lunch and discussions**	
1400 - 1530	Foundation continuation	Andrew???
1530 – 1600	A proposed G2V demonstration project	Andrew
1600 – 1630	Wrap up and final discussions	ALL

Day 3: Wednesday 22nd April [Glenn/TransNet and Daniel/Supernova: Training]

TIME	TOPICS	
0900 - 0910	Opening Prayer and recap on Day 2	Andrew /PCREEE

0910 – 10am	**Session 1: Foundations**
	Goal: Make EV charging simple and remove confusion early
	• What EV charging actually is (AC vs DC – simple explanation)
	• Charging modes (Mode 2 vs Mode 3 vs DC)
	• Connectors and plugs
	  ○ Type 1 vs Type 2
	  ○ Tethered vs socketed
	• Portable chargers vs fixed chargers
	• Key message: *Charging is simple — the industry can over complicate it sometimes*
		Glenn, TransNet

1000 - 1030	**Morning Tea**	

1030 - 1100
1100 - 1300
	Session 2: How It Really Works
	Goal: Build real understanding + introduce control
	Part 1: Power & Charging Behaviour
	• Single-phase vs three-phase charging
	• Real-world vs theoretical behaviour
	• Why single-phase often makes more sense
	• Phase balancing myths vs reality
	• "As slow as possible within time available"
	• Range-adding vs power delivery mindset
	
	Part 2: Communication (Core EVSE Function)
	• Control Pilot (CP)
	  ○ Signal = current limit
	  ○ Duty cycle concept
	• Proximity Pilot (PP)
	  ○ Cable rating limitation
	• Who is actually in control (car vs charger)
	Part 3: OCPP & Backend Systems
	Goal: Explain what sits behind the charger (without overcomplicating it)
		Glenn, TransNet
		
		(Guest Session)
		Delivered by Daniel Mulder

	• What OCPP actually is (simple explanation)
	• Charger ↔ backend communication
	• What the backend does
	  ○ User access
	  ○ Monitoring
	  ○ Payments
	  ○ Reporting
	Key message:
	• OCPP is not control pilot
	• It's slow, high-level communication, not real-time electrical control
	Part 4: Lead-in to Practical
	• What they'll test themselves
	• Multimeter + duty cycle preview
	• Cable limiting preview (13 A / 20 A / 32 A)	

1300 - 1400	**Lunch and discussions**	

1330 – 1600	Session 3: **Safety, Real-World & Future**
	Goal: Confidence, correct installs, and big-picture understanding
	Protection & Safety
	• RCD types
	  ○ Type A vs Type B
	• RCBO vs RCCB (how to identify, why it matters)
	• 6 mA DC detection inside chargers
	• "Seatbelt analogy"
	
	Special Topics
	• Open PEN detection (UK vs NZ context)
	• Common mistakes
	  ○ Wrong protection assumptions
	  ○ Misreading cable capability
	  ○ Overcomplicating installs
	Vehicle-to-X (V2X) – Simple & Practical
	Goal: Remove hype, show real value
	• V2L (Vehicle-to-Load) → real, usable now
	• V2H (Vehicle-to-Home) → situational
	• V2G (Vehicle-to-Grid) → can be complex, limited today – get ready for the future
	
	Tie-in:
	• Cars as batteries
	• Remote/island benefits
	• Diesel generator = temporary enabler
	
	System Thinking (Light Touch)
	• Charging outcome vs charging speed
		Glenn, TransNet and/or Daniel / Supernova

	• Designing for "all cars charged" • Intro to load management (only if time)	
1600 – 1630	Wrap up and final discussions	ALL

Day 4: Thurs 23rd April (half-day)

TIME	TOPICS	
0900 - 0910	Opening Prayer and recap on Day 3	Andrew /PCREEE

0910 – 11:45	**Half-Day Practical Session**
	
	Goal: Make it real and memorable
	
	Control Pilot Testing
	• Measure duty cycle with multimeter
	• Adjust charger current → observe change
	Proximity Pilot / Cable Limiting
	• Swap resistors:
	  ○ 13 A
	  ○ 20 A
	  ○ 32 A
	• Show car limiting regardless of charger setting
	Optional (if time allows)
	• Basic fault scenarios
	• Signal loss / incorrect wiring behaviour
		Glenn, TransNet