TVET Training of Trainers(ToT) on Sustainable Energy: NC1 – NC4

Location: **Emmaus Conference Centre, Don Bosco Technical Institute (DBTI), National Capital District (NCD)**

Date: **06th – 12th June 2021**

Aims and Objectives:

Aim: The overall goal of the project is to upskill selected facilitators to be able to implement NC1-4 in their respective institutes, and this address the skills shortage to drive new growing sector

The **objectives** of the training are to:

(i) Potential TVET Facilitators to familiarise with the following;
   (a) generic qualifications NC1 and NC2 that delves into workplace responsibilities, on-grid and off-grid systems, RE and Non-RE energy sources and EE
   (b) NC3 that covers logistics and procurement of project activities; scheduled and preventative maintenance; EE assessments, practice, retrofitting, and evaluation; and RE applications of tools and equipment for complex tasks; Use of drawings, codes, standards and specifications; fault diagnosis and rectification; assistance in installation and O &M; and
   (c) NC4 that looks into WHS identification and risk assessment; Supervision and coordination of energy sector activities; Energy Management; and RE applications of tools, equipment, and materials for planning, design and installation; Installing, operation and coordination of maintenance efforts of RE systems.

(ii) Discuss the basic theory of systems introduced by the facilitator, emphasise hands-on work (learning by doing) in preparing system design and carrying out installation, diagnosis and rectification, and O&M related activities of RE and EE systems.

(iii) Promote Renewable Energy and Energy Efficiency with TVET institutes

Targeted Participants:

Current practising TVET instructors who are engaged in running programmes in the following fields: -

- Electrotechnology
- Mechanical
- Architecture
- Building
- Applied Science

Expected Outcomes:

The expected outcomes of the ToT event are as follows;

(i) Using tools, equipment and materials: applied safely in the workplace and relating to generic tools and equipment used for on-grid and off-grid renewable energy sources (micro-hydro and solar) renewable energy technology and energy efficiency such as fuel generators, battery charge controllers, hand and power tools, and PV Solar panels.

(ii) Identifying appropriate renewable energy sources and renewable energy technolo gies, measuring energy efficiency and participating in the implementation of sus tainable energy projects:

   a. Determine standalone and hybrid power systems suitable for local communities, government imperatives/INDCs and development partner objectives;

b. Report on suitable alternative energy sources/technologies and identify risk and vulnerability factors, conduct and monitor tasks to implement SE projects.

Facilitators on the content of the Program Sustainable Energy.

1. Darlen Lovi
   Phone: +675 7183 3842 Email: dplovi@upng.ac.pg
   An electrical engineer with a Masters of Engineering Science from Curtain University (AUS) and has extensive experience in designing and teaching sustainable energy programs.
2. Damien Sonny
   Phone: +675 7451 0736 Email: damien.sonny@upng.ac.pg
   A registered engineer with a Masters in Energy from the University of Auckland who has well over a decade of experience in the electromechanical engineering field including project engineering and management particularly in the manufacturing and power industry in PNG.

Note:
Should there be any issues with transport logistics please contact the facilitators on details provided.

Facilitators for the Competency Based Training and Assessment from TVET:

1. **Mr Raymond Grangin**
   Senior Curriculum Officer, Automotive
2. **Mr Thomas Aiye**
   Senior Curriculum Officer, Electrotechnology

Coordinators of the Program

1. Mr Manu Rawali
   Director – CoRE

2. Mrs Violet Gerega
   Director – TVET Curriculum Non-Trades

List of Participants:

No.	Names of Participants	Institution	Province	Comments
1	Joseph Kisokau	Port Moresby Technical College	NCD	ToT
2	Daniel Bernard	Port Moresby Technical College	NCD	ToT
3	Job Kum	Port Moresby Technical College	NCD	ToT
4	Maria Tetu	Limana Vocational Centre	NCD	ToT
5	Sr. Maria Gorethy Leison	Limana Vocational Centre	NCD	ToT
6	Sam Onom	Ogelberg Vocational Centre	WHP	ToT
7	Steven Yambundimi	TVET Inspector	WHP	ToT
8	Tasman Dau	Regional Vocation Coordinator	ENBP	ToT
9	Joseph Batia	Woolnough Vocational Centre	ENBP	ToT
10	Maria Taudiri	Bolubolu Vocational Centre	Milne Bay	ToT
11	Cyprian Dademo	Kwato Vocational Centre	Milne Bay	ToT
12	Lina Tarubi	Umi Vocational Centre	Morobe	ToT
13	Richmond Kababa	Umi Vocational Centre	Morobe	ToT
14	Rachel Pena	Lae Polytechnical Institute	Morobe	ToT
15	Jinky Baltazar	Lae Polytechnical Institute	Morobe	ToT
16	Urex Masina	Mt. Hagen Technical College	WHP	ToT
17	Paul Mangau	Madang Technical College	Madang	ToT
18	Dominic Kora	Madang Technical College	Madang	ToT
19	Pelega Leka	Keakalo VTC	Central	ToT
20	Matan Dindi	Goroka Technical College	EHP	ToT
21	Janet Gaima	TVET Head Office – FOL	NCD	ToT
22	Raymond Grangin	TVET Head Office – Automotive	NCD	CBT Facilitator
23	Thomas Aiye	TVET Head Office – Electrotechnology	NCD	CBT Facilitator
24	Johnson Kilis	CCDA Adaptation Rep	NCD	SE Content Facilitator
25	Darlen Lovi	UPNG CoRE Rep (Academia)	NCD	SE Content Facilitator
26	Damien Sonny	UPNG CoRE Rep (Industry)	NCD	SE Content Facilitator
27	Violet Gerega	TVET Head Office – Programme Coordinator	NCD	TVET Programme Coordinator/Facilitator

The Training Programme:

Sunday, 06th June 2021

- Arrival of Participants from Outside Port Moresby
- Transport for pick up will be available at Jacksons Airport.
- Contact Darlen Lovi on mobile number 7183 3842 and/or Damien Sonny on mobile number 7451 0736.
- Accommodation will be at Emmaus Conference Centre at Don Bosco Technical Institute (DBTI). Check-in at 6:30pm
    - Transit House will be Dream Inn (Next to Vision City)

Monday, 07th June 2021: Day 1 – National Certificate 1 (NC1)

Time	Topic	Activities	Facilitator
8:00 – 8:45	Registration		Damien Sonny
8:45 – 9:45	Introduction and housekeeping including Covid-19 Protocols		Damien Sonny
	Opening Ceremony (Damien Sonny-Master of Ceremony)		
9:45 – 9:50	Opening Prayer		Pastor Onamusi
9:50 – 10:00	National Anthem and Pledge		MC
10:00 – 10:10	Welcome and Purpose of Workshop		Darlen Lovi
10:10-10:15	Situational background		Violet Gerega
10:15-10:20	Opening Remarks from UNDP/CCDA Remarks		Gretel/Danny
10:20 – 10:40	Opening Remarks from DoE Secretary or Representative		Secretary of Education
10:40-10:50	Closing of Ceremony **Photo Session (Group Photo)-Taken at the courtyard with Photographer on the second floor** Morning Tea and Coffee		MC
10:50 – 11:45	SE10520- Describe and Explain Energy Sources	• Explain the concept of energy • Identify and explain the origin of all the earth's energy • Identify different forms and sources of energy on earth • Explain energy transformation/conversion and transfer • Explain the importance of energy in human societies	Damien Sonny/Darlen Lovi
11:45 – 12:45	SE10620 – Select Basic Tools, Equipment and Materials used in RET and EE	• Identify and use appropriate tools, equipment and resources for a specific task in RET and EE; • identify problems related to the use of tools and basic equipment and take appropriate action • repair and perform routine maintenance tasks to tools and equipment • demonstrate care and safe work practices using tools and equipment and resources • identify and apply the correct storage measures for tools, equipment and resources	Damien Sonny/Darlen Lovi

		• submit tool check records in accordance with procedures, and complete relevant job documentation	
12:45 – 13:30	**Lunch**		
13:30– 14:30	SE10720 – Promoting Sustainable Energy Practices in PNG Communities	• Identify and explain safe, sustainable energy practice to others in the community • Prepare to promote recognised, safe, reliable and affordable sustainable energy practice at regional, national and domestic levels • Report on completed the promotion activities of sustainable energy	Damien Sonny/Darlen Lovi
14:30 – 15:30	SE10820 – Perform Workplace Calculations for Energy Sector	• Perform calculations as an integral part of routine work in the energy sector • Carry out required simple mathematical operations using manual and electronic processes • Prepare basic statistics such as means, mediums, averages, standard deviations. • Interpret basic graphical representations of mathematical information	Damien Sonny/Darlen Lovi
15:30 – 15:45	**Afternoon Tea Break**		
15:45 – 16:45	SE20420-Describe and explain basic renewable energy technologies (RETs) and Energy Saving Practices	• Identify Renewable and Non-Renewable Energy Resources harnessed in a global, regional (Pacific-wide) and local (communities) context, • Identify and describe different types of Renewable Energy Technologies used globally and those that are used in various Pacific Island communities. • Explain and distinguish energy efficiency and energy Conservation • Identify energy ratings on different electrical appliances used in households, offices and commercial buildings Identify the units of “power”, “voltage”, “electrical current” and	Damien Sonny/Darlen Lovi

		"electrical energy" in accordance with the System of International Units (SI Units)	
16:45 – 17:45	Practical Session/Group Activity		Damien Sonny/Darlen Lovi
17:30 – 18:00	Back to Emmaus Centre		
18:00 – 19:00	**Dinner**		
19:00 – 20:00	M1	TVET, CBT&A Principles & Concepts; Paradigm shift;NQF	Grangin/Aiye/Gerega
20:00 – 21:00	M2	Design & Develop Learning Program	Grangin/Aiye/Gerega
21:00 – 22:00	Activity Task 1	Develop a unit of competence	Grangin/Aiye/Gerega

Tuesday, 08th June 2021: Day 2 – National Certificate 2 (NC2 & National Certificate 3 (NC3))

Time	Topic	Activities	Facilitator
8:00 – 8:15		Registration	Damien Sonny
8:15 – 9:15	SE20520-Apply tools, equipment, materials relevant to tasks in RET and Energy Efficiency Practices	• Select and use tools and equipment relevant to each of the different RET and EE practices and measures; • Identify and use relevant materials relevant for each of the different in RETs and EE practices and measures; • Identify basic faults in RETs and other power tools and perform repairs using correct too and procedures • Demonstrate ability to write basic reports in regards to tool handling and storage, including wear and tear • Demonstrate ability to work independently under limited supervision with RET	Damien Sonny/Darlen Lovi
9:15 – 10:15	SE20620 – Provide basic sustainable energy solutions for energy reduction in residential, commercial and industrial premises	• Prepare to monitor energy usage to help in energy reduction in residential, commercial and industrial premises • Identify basic sustainable energy options using renewable energy sources and renewable energy technologies to reduce energy consumptions in residential, commercial and industrial premises. • Identify basic sustainable energy options using non-renewable energy sources to conserve and reduce energy consumptions for residential, commercial and industrial premises. • Complete monitoring activities and provide reports on alternative sustainable energy options for residential, commercial and industrial premises	Damien Sonny/ Darlen Lovi
10:15-10:30	**Morning Tea Break**		

10:30 – 11:30	SE20720-Promote and contribute to energy efficiency.	• Identify and describe the requirements to maintain energy efficiency • Explain the benefits relating to energy efficiency using different sources of renewable energy • Promote and apply energy efficient work practices Identify opportunities for efficiencies in energy consumption or use of raw materials • Identify opportunities for innovation in energy efficiency	Damien Sonny/Darlen Lovi
11:30 – 12:30	SE3202 – Evaluate Energy Saving Measures in Energy Utilising Systems	• Identify and evaluate the efficiency of energy utilizing systems • Identify and describe energy-saving measures • Identify and describe energy utilizing systems in residential, commercial and industrial premises	Damien Sonny/Darlen Lovi
12:30 – 13:30	**Lunch**		
13:30– 14:30	SE 3201 - Evaluation, recommendation and selection of EE products	• Identify the drivers to promoting energy efficiency in residential, commercial and industrial premises. • Identify the kind of equipment/apparatus and electrical appliance used in residential, commercial and industrial premises; • Select high efficient appliances and equipment for residential uses • Evaluate and select Electrical appliances including Refrigeration, Heating, Ventilation and air-conditioning (RHVAC), industrial and commercial equipment and apparatus and other energy systems such as all kinds of power generators, automobile and other utility 2-stroke engines that are energy efficient; • Evaluate and select building design and construction methods and materials for energy efficient	Damien Sonny/Darlen Lovi

14:30 – 15:30	SE3203 – Promote and Contribute to Energy Efficiency	• Identify means of contributing to systems improvement with regard to energy efficiency • Identify ways to promote and improve energy efficient work practices • Identify requirements to maintain and contribute to energy efficiency • Develop an energy efficiency plan	Damien Sonny/Darlen Lovi
15:30 – 15:45	**Afternoon Tea Break**		
15:45 – 16:45	SE3204– Assessment for Improving Energy Efficiency in Energy Consumption Systems	• Devise a plan for assessing the energy efficiency of energy systems • Compile data and information on energy consumption from energy systems • Analyse data on energy data systems consumption characteristics, costs and emissions • Identify and recommend measure to improve energy efficiency in energy consumption systems	Damien Sonny/Darlen Lovi
16:45 – 17:45	Practical Session/Group Activity		Damien Sonny/Darlen Lovi
17:45 – 18:00	**Bus Tour of Port Moresby**		
18:00 – 19:00	**Dinner**		
19:00 – 20:00	M3 – Section A	Plan, organise and deliver group-based learning	Grangin/Aiye/Gerega
20:00 – 21:00	M3 – Section B	Facilitate group-based learning	Grangin/Aiye/Gerega
21:00 – 22:00	Activity Task 2	Produce a module from the unit	Grangin/Aiye/Gerega

Wednesday, 09th June 2021: Day 3 – National Certificate 3 (NC3) & National Certificate 4(4)

Time	Topic	Activities	Facilitator
8:00 – 8:15		Registration	Damien Sonny
8:15 – 9:15	SE3301 MHP – Apply Tools, Equipment & Materials in Complex Tasks in RE & EE for Operations and Maintenance (Micro-Hydropower)	• Identify the different types and uses of Power tools, equipment's and Materials used for operating testing and maintenance of micro-hydropower • Demonstrate the safe handling of power tools, equipment's and materials for operating, testing and maintenance of micro-hydropower • Demonstrate the maintenance practises of power tools, equipment's	Damien Sonny/Darlen Lovi

		and materials used for micro-hydropower	
	SE3302 MHP– Apply Basic Concepts in RE for Energy Generation and Consumption (Micro-Hydropower)	• Identify and describe the importance of social inclusion in energy and electrification • Identify and describe the function of all parts/ components that constitute a micro-hydropower system • Estimate the power available from hydropower plant through the seasons • Estimate the electrical power demand for a community through the day • Perform a simple economic and environmental assessment of the micro-hydropower technology in the Pacific island countries' context.	Damien Sonny/Darlen Lovi
9:15 – 10:15	SE3303 MHP– Use Drawings, Diagrams, Schedules, Standards, Codes and Specifications (Micro-Hydropower)	• Prepare to use drawings, diagrams, schedules and manuals for MHP design and installation • Use drawings, diagrams, schedules and manuals to obtain MHP job information. • Use MHP drawings, diagrams, schedules and manuals to convey information and ideas. • Prepare to use compliance standards, codes and specifications.	Damien Sonny/Darlen Lovi
10:15-10:30	**Morning Tea Break**		
10:30 – 11:30	SE3304 MHP – Diagnose and Rectify Faults in Renewable Energy Control Systems (Micro-Hydropower)	• Identify and rectify/repair any technical faults within a micro-hydropower control systems • Compile completed micro-hydropower systems fault finding and repair activities	Damien Sonny/Darlen Lovi
11:30 – 12:30	SE3305 MHP – Maintain and repair facilities associated with remote area essential service operations (Micro-Hydropower)	• Prepare to maintain and repair micro-hydropower facilities. • Maintain and repair micro-hydropower facilities. • Complete maintenance and repair work reports	Damien Sonny/Darlen Lovi
12:30 – 13:30	**Lunch**		
13:30– 14:30	SE3306 MHP – Assist in installation, operation and	• Prepare to install operate and maintain micro-hydropower systems	Damien Sonny/Darlen Lovi

	maintenance of systems for RETs and EE (Micro-Hydropower)	• Demonstrate installation of renewable energy systems equipment. • Demonstrate the safe handling and operations of renewable energy systems equipment. • Demonstrate the maintenance practices of renewable energy systems and equipment. • Write completion reports on installation and maintenance activities.	
14:30 – 15:30	SE3301S – Apply Tools, Equipment & Materials in Complex Tasks in RE & EE for Operations and Maintenance (Solar Photovoltaics)	• Identify the different types and uses of Power tools, equipment's and Materials used for operating testing and maintenance of solar photovoltaic • Demonstrate the safe handling of power tools, equipment's and materials for operating, testing and maintenance of solar photovoltaic • Demonstrate the maintenance practises of power tools, equipment's and materials used for solar photovoltaic	Damien Sonny/Darlen Lovi
15:30 – 15:45	**Afternoon Tea Break**		
15:45 – 16:45	SE3302S– Apply Basic Concepts in RE for Energy Generation and Consumption (Solar Photovoltaics)	• Identify and describe the importance of social inclusion in energy and electrification • Identify and describe the function of all parts/ components that constitute a Solar photovoltaic system • Estimate the power available from the solar photovoltaic system through the seasons • Estimate the electrical power demand by a community or a household through the day • Perform a simple economic and environmental assessment of the solar photovoltaic technology in the Pacific island countries' context.	Damien Sonny/Darlen Lovi
16:45 – 17:30	**Bus Trip to Shopping Mall for Essentials**		
17:30 – 18:00	Back to Emmaus Centre		
18:00 – 19:00	**Dinner**		
19:00 – 20:00	Activity Task 3	Produce a session plan	
20:00 – 21:00	Group Presentation	• Unit of competence • Module of the Unit • Session Plan	Grangin/Aiye/Gerega
21:00 – 22:00	Group Presentation	• Unit of competence • Module of the Unit Session Plan	Grangin/Aiye/Gerega

Thursday, 10th June 2021: Day 4 – National Certificate 4 (NC4)

Time	Topic	Activities	Facilitator
8:00 – 8:15		Registration	Damien Sonny
8:15 – 9:15	SE3303S– Use Drawings, Diagrams, Schedules, Standards, Codes and Specifications (Solar Photovoltaics)	• Prepare to use drawings, diagrams, schedules and manuals. • Use drawings, diagrams, schedules and manuals to obtain job information, convey information and ideas. • Prepare to use compliance standards, codes and specifications.	Damien Sonny/Darlen Lovi
9:15 – 10:15	SE3304S – Diagnose and Rectify Faults in Renewable Energy Control Systems (Solar Photovoltaics)	• Identify and prepare to diagnose technical faults in the solar photovoltaic control system. • Identify and rectify/repair any technical faults within solar photovoltaic control systems • Compile completed RE systems fault finding and repair activities	Damien Sonny/Darlen Lovi
10:15-10:30	**Morning Tea Break**		
10:30 – 11:30	SE3305S – Maintain and repair facilities associated with remote area essential service operations (Solar Photovoltaics)	• Prepare to maintain and repair solar PV facilities. • Maintain and repair solar PV facilities. • Complete maintenance and repair work reports	Damien Sonny/Darlen Lovi
11:30 – 12:30	SE3306S – Assist in installation, operation and maintenance of systems for RETs and EE (Solar Photovoltaics)	• Prepare to install operate and maintain solar PV systems • Demonstrate installation of renewable energy systems equipment. • Demonstrate the safe handling and operations of renewable energy systems equipment. • Demonstrate the maintenance practices of renewable energy systems and equipment. • Write completion reports on installation and maintenance activities.	Damien Sonny/Darlen Lovi
12:30 – 13:30	**Lunch**		
13:30– 14:30	SE4102– Supervise and Coordinate Energy Sector Work Activities	• Prepare to supervise and coordinate work activities in various work locations • Supervise and coordinate work activities in various work locations • Document supervision and coordination activities	Damien Sonny/Darlen Lovi

14:30 – 15:30	SE4103– Describe and Use Logical Framework Analysis and Cost-Benefit Analysis to Appraise	• Determine the objective of the cost-benefit analysis and LFA • Identify the costs and benefits for a given energy activity measure or project • Identify and explain steps involved in LFA for energy project design • Value the costs and benefits as much as possible in quantifiable terms • Sum the costs and benefits over time • Assess the importance of major uncertainties and limitations associated with both analytical tools and activity • Consider who will incur the costs and benefits and what impact this might have on the activity	Damien Sonny/Darlen Lovi
15:30 – 15:45	**Afternoon Tea Break**		
15:45 – 16:45	SE4104 – Conduct a Sustainable Energy Audit	• Coordinate, manage and apply safe working practices • Define appropriate boundaries for the sustainable energy audit • Conduct energy balance analyses for a site or process • Identify high energy use/wastage • Conduct cost/benefit analyses • Ensure improvement strategies proposed to reflect stakeholder needs and regulatory environment	Damien Sonny/Darlen Lovi
16:45 – 17:45	Group Activity Session/Practical:	Energy Convversion	Damien Sonny/Darlen Lovi
17:45 – 18:00	**Break**		
18:00 – 19:00	Dinner		
19:00 – 20:00	Activity Task 3	Produce a session plan	
20:00 – 21:00	Group Presentation	• Unit of competence • Module of the Unit • Session Plan	Grangin/Aiye/Gerega
21:00 – 22:00	Group Presentation	• Unit of competence • Module of the Unit • Session Plan	Grangin/Aiye/Gerega

Friday, 11th June 2021: Day 5 – National Certificate 4 (NC4)

Time	Topic	Activities	Facilitator
8:00 – 8:15		Registration	Damien Sonny
8:15 – 9:15	SE4105– Planning and Managing the Energy Sector	• Demonstrate the use of energy planning and Energy management tools	Damien Sonny/Darlen Lovi

		• Develop and use a basic Energy Data Base using Microsoft window-based software, • Develop energy balance (tables and flow diagram) using Microsoft window-based software • Understand how energy is priced • Demonstrate use of Project Planning and management tools in planning, implementing and monitoring energy projects	
9:15 – 10:15	SE4106 – Regulating the Energy Sector and Energy Policy Development	• Explain why regulate, who regulate and what can be regulated in the energy sector, • Describe various types of energy regulations and the principles of regulation • Explain how energy commodity account is essential in energy policies development • Describe how Energy policy encourage renewable energy and energy efficiency.	Damien Sonny/Darlen Lovi
10:15-10:30	**Morning Tea Break**		
10:30 – 11:30	SE4301 MHP - Apply Tools, Equipment & Materials in Complex Tasks in RE & EE for Designing, Installing and Commissioning (Micro-Hydropower System)	• Identify the different types and uses of power tools, equipment and materials used for designing, installing and commissioning of micro-hydropower systems • Demonstrate the safe handling of power tools, equipment and materials for designing, installing and commissioning of micro-hydropower • Demonstrate the knowledge and skills in designing, installing and commissioning of micro-hydropower power systems.	Damien Sonny/Darlen Lovi
11:30 – 12:30	SE4303 MHP - Design, Install, Operate and Maintain RET Systems (Micro-Hydropower System)	• Prepare to install operate and maintain micro-hydropower (MHP) systems • Demonstrate Installation of micro-hydropower (MHP) systems equipment. • Demonstrate the safe handling and operations of micro-hydropower (MHP) systems equipment. • Demonstrate the maintenance practices of micro-hydropower (MHP) systems and equipment's.	Damien Sonny/Darlen Lovi

		• Write completion report on installation and maintenance activities.	
12:30 – 13:30	**Lunch**		
13:30– 14:30	SE4301 S - Apply Tools, Equipment & Materials in Complex Tasks in RE & EE for Designing, Installing and Commissioning (Solar Photovoltaic System)	• Prepare to install, operate and maintain solar PV systems • Demonstrate the use of different types of power tools, equipment and materials used for designing, installing and commissioning of solar PV systems • Demonstrate the safe handling of power tools, equipment and materials for designing, installing and commissioning of solar PV system • Demonstrate technical knowledge and skills in designing, installing and commissioning of solar PV system • Demonstrate the maintenance practises of solar PV systems, equipment, materials and power tools used for designing, installing and commissioning of RE systems	Damien Sonny/Darlen Lovi
14:30 – 15:30	SE4303 S - Design, Install, Operate and Maintain RET Systems (Solar Photovoltaic System)	• Prepare to install, operate and maintain solar PV systems • Demonstrate Installation of solar PV system equipment. • Demonstrate the safe handling, operations and maintenance of solar PV system • Write completion report on installation and maintenance activities.	Damien Sonny/Darlen Lovi
15:30 – 15:45	**Afternoon Tea Break**		
15:45 – 16:45	SE4302 – Assist Tradesperson to Determine Energy Efficiency and Energy Conservation Practices to Save Energy	• Prepare to evaluate energy efficiency and energy conservation practices to save energy • Evaluate energy efficiency and energy conservation practices to save energy in energy utilizing systems • Document the evaluation of energy efficiency and energy conservation practices to save energy in energy utilizing systems	Damien Sonny/Darlen Lovi
16:45 – 17:45	SE4304 – Coordinate Maintenance of RE Apparatus and Systems	• Apply safe working practices • Follow maintenance schedules • Determine the extent of repairs required • Determine the personnel needed to repair the breakdown	Damien Sonny/Darlen Lovi

		• Provide technical support to maintenance	
	SE4305 - Supervise and coordinate energy sector work activities	• Coordinate, manage and apply safe working practices • Implement safety procedures and processes • Sequence work activities • Provide guidance and work instructions to others • Ensure job requirements are met • Maintain necessary work documentation	
17:45 – 18:00	**Prepare for closing ceremony**		
18:00 – 18:10	Rep from UPNG		
18:10 – 18:20	Rep from Industry		
18:20 – 18:30	Rep from Education Department		
18:30 – 18:40	Teacher rep		
18:40 – 18:50	Manager rep		
18:50 – 19:00	TVET Coordinator Rep		
19:00 – 19:20	Closing Remarks – Rep from Education Board		
19:20 – 19:30	Closing Prayer – Fr. Srimal		
19:30 – 20:30	**Dinner**		

Saturday, 12th June 2021:

Time	Topic	Activities
7:00-9:00 am	Breakfast	
9:00am-11:00 am	Check-out of Emmaus	Travel Home Safe Travels!