



JOB DESCRIPTION

Job Title:	Senior Renewable Energy Lead
Division/Programme and Section/Project:	Geoscience, Energy and Maritime (GEM) Division Georesources and Energy Programme (GEP)
Location:	Suva, Fiji
Reporting to:	Team Leader - Energy Security
Number of Direct Reports:	N/A
Purpose of Role:	Under the supervision of the Team Leader Energy Security, the Senior Renewable Energy Lead will lead the technical components of small to medium-scale sustainable power supply systems (focus on solar PV and hybrid micro and mini grids), and management support to SPC's energy projects, particularly those in Federated States of Micronesia (FSM) and Kiribati. The incumbent will help raise SPC and member state capacity and profile in effectively delivering sustainable electrification initiatives which will be a key facet of the role.
Date:	August 2024

Organisational Context and Organisation Chart

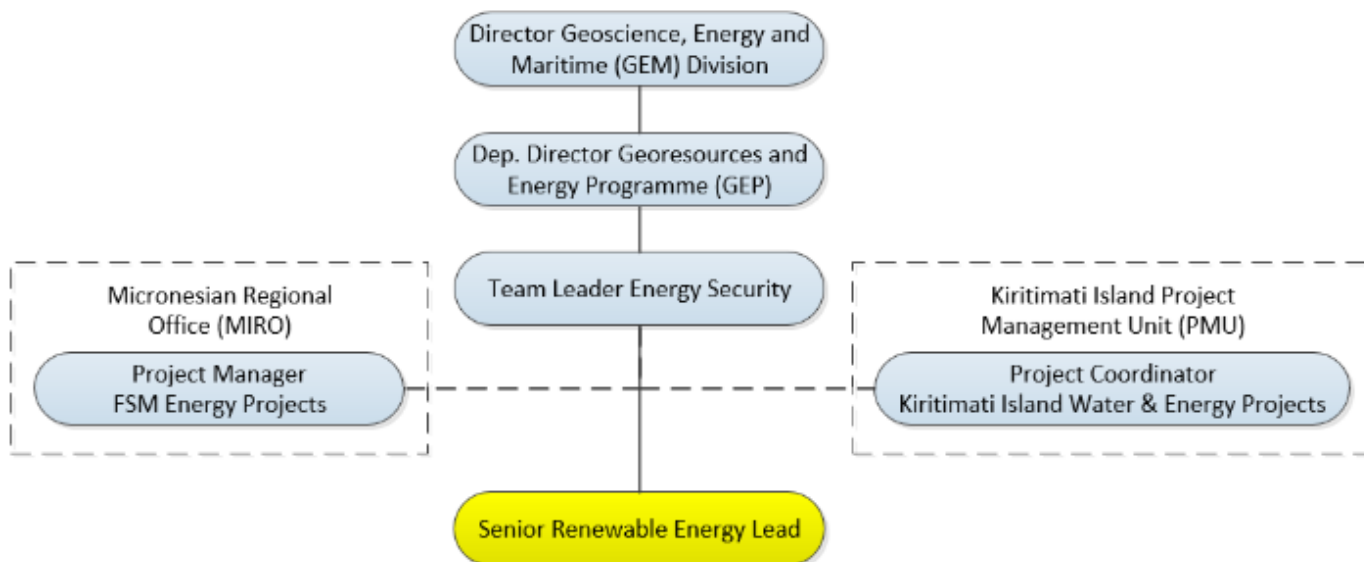
SPC is the principal scientific and technical organisation in the Pacific region, proudly supporting development since 1947. We are an international development organisation owned and governed by our 27 country and territory members. We work for the well-being of Pacific people through the effective and innovative application of science and knowledge, guided by a deep understanding of Pacific Island contexts and cultures. (<https://www.spc.int/>).

The Geoscience, Energy and Maritime Division (GEM) uses scientific and technical innovations to develop solutions that help overcome development challenges in the Pacific. The Division supports Pacific Countries and Territories by developing critical data, applied science and technical solutions to overcome challenges faced by our members. We work in partnership with countries to better understand these challenges whilst supporting and developing innovative solutions to overcome some of the greatest risks faced by this region.

The Georesources and Energy Programme (GEP) brings together the Economic Development Division and our Georesources team. The inextricable links between understanding and use of Pacific georesources and their link to the development of sustainable energy systems ensures the programme effectively integrates along each stage of the supply chain. This model ensures increased support for our members to understanding, protect and manage these resources sustainably.

The Senior Renewable Energy Lead is accountable to the Team Leader Energy Security and part of a multidisciplinary team. The incumbent will work closely with other programs within GEM Division and participate in relevant Energy Security, GEP and divisional activities and contribute to integrated programming across SPC. During the first two years of the Senior Renewable Energy Lead's tenure, focus will be on supporting

SPC's FSM and Kiritimati Island (Kiribati) teams to successfully deliver their respective solar PV electrification projects while applying and sharing best practices and lessons learned.



The Electrification of Kiribati's Line Islands Powered through Solar Energy project (EKLIPSE; aka Line Islands Energy Project) is an AUD 2,9M DFAT-funded initiative involving:

- **Supply:** Increased solar PV capacity (from 150kW to over 300kW), installation of a grid-forming containerised battery energy storage system (BESS; up to 1MWh), and integration with existing diesel generation capacity to improve overall system capacity, reliability, efficiency and affordability.
- **Demand:** Energy audits, demand side management, minimum energy performance standards, efficiency measures and communications and awareness program targeting behaviour change and habit formation.
- **Capacity:** Electrical utility institutional strengthening and technical training
- **Access:** Extension of low voltage electrical grid and installation of off-grid solutions (~5kW) for schools, community centres and elsewhere as deemed appropriate and as funding permits.

The FSM through funding from the EU and DFAT are supporting a number of electrification projects in the islands of Fefen, Etten and Piis Paneu in Chuuk State, Woleai in Yap State and Pingelap in Pohnpei State. The five islands will be electrified as following.

1. Fefen Island - Construction and installation of 770 kWp Solar PV with 1.5MWh BESS and 250kVA Diesel genset hybrid mini-grid. This includes the installation of 21.56km of medium voltage, 19 km of low voltage underground distribution line for 659 customers.
2. Piis Paneu – Construction and installation of 109 kWp Solar PV with 234 kWh BESS and 40kVA Diesel genset hybrid mini-grid. This includes the installation of 2,500meters of low voltage underground distribution line for 78 customers.
3. Etten - Construction and installation of 65 kWp Solar PV with 144 kWh BESS and 25kVA Diesel genset mini-grid. This includes the installation of 3,100 meter of low voltage underground distribution line for 54 customers.
4. Woleai - Construction and installation of 105 kWp Solar PV with 729 kWh BESS mini-grid. This includes the installation of 10,000 meters of low voltage underground distribution line for 86 customers.
5. Pingelap - Construction and installation of 65 kWp Solar PV with 405 kWh BESS mini-grid. This includes the installation of 2,743 meters of low voltage underground distribution line for 57 customers.

Key Result Areas (KRAs):

The position of Senior Renewable Energy Lead encompasses the following major functions or Key Result Areas:

1. Leading technical components (design, installation, commissioning) of SPC's electrification projects (50%).
2. Supporting management of SPC's electrification projects (30%)
3. Leading and coordinating the implementation and integration of SPC's portfolio of energy projects and activities (20%).

The performance requirements of the Key Result Areas are broadly described below.

Jobholder is accountable for	Jobholder is successful when
KRA 1: Leading technical components (design, installation, oversight and commissioning) of SPC's electrification projects (50%).	
<ul style="list-style-type: none"> i. Lead the development of appropriate designs, detailed drawings, specifications and tender documents for FSM and Kiritimati sustainable electrification infrastructure works. ii. Support procurement administration and tender evaluation processes, providing technical advice as needed. iii. Support contract management and regularly liaise directly with contractors to facilitate successful achievement of deliverables. iv. Lead electrical infrastructure works undertaken directly by SPC and local counterparts (i.e. not outsourced). v. Lead site preparation and supervision for electrical infrastructure installations and commissioning. vi. Lead local capacity building, monitoring and troubleshooting activities for existing and new electrical infrastructure in target locations. 	<ul style="list-style-type: none"> i. Appropriate stakeholders consulted. Detailed design and works packages complete. Tenders released in required timeframe. Systems designed and appropriate to sustainably meet beneficiary/user needs. ii. Goods, services and works packages successfully contracted in required timeframe. iii. Correct materials and equipment delivered and contractors suitably informed and mobilized as planned. iv. Locally implemented electrical works completed in a timely and safe manner. v. Solar PV systems, batteries, controls, hybrid integration and other electrical works commissioned and operational as per spec. vi. Local operators and authorities trained and knowledgeable in system performance optimization, monitoring, operation and maintenance.
KRA 2: Supporting management of SPC's electrification projects (30%)	
<ul style="list-style-type: none"> i. Support project managers with planning, reporting, administration, procurement, monitoring, stakeholder engagement, technical guidance, contract management, financial management, site supervision, etc. ii. Backstop project managers when needed. iii. Provide technical advice and support to other project activities, including energy audits, community education and awareness, data analysis, electrical utility institutional capacity building, operator training, grid extensions, OH&S, etc. iv. Provide ongoing guidance, quality control and recommendations to improve project delivery. 	<ul style="list-style-type: none"> i. Project plans and targets met and on-budget, whilst being iteratively amended to reflect context and resource availability. Quality technical reporting content provided in a professional and timely manner. ii. Project management duties backstopped when on leave or otherwise as needed. iii. Project deliverables achieved, both technical and non-technical, in a quality and timely manner. iv. Value-adding change management communicated and undertaken in a timely and appropriate manner.
KRA 3: Leading, coordinating and strengthening the implementation and integration of SPC's portfolio of energy projects and activities (20%).	
<ul style="list-style-type: none"> i. Identify technical capacity gaps and build SPC and counterpart/partner capacities in appropriate fields of energy security and electrification. 	<ul style="list-style-type: none"> i. Internal and counterpart gaps analysis undertaken and documented. Training and capacity building program developed, resourced and undertaken.

<ul style="list-style-type: none"> ii. Consolidate lessons learned, best practices and knowledge sharing products to streamline and strengthen implementation of rural and outer island electrification projects. iii. Work with project and communications teams to prepare case studies (and/or similar communications products) to publicize achievements made and promote application of sustainable energy. iv. Identify opportunities and leverage funding to expand scale of SPC's energy security project portfolio. v. Support with data collection, consolidation, analysis and reporting on organizational, counterpart, member country and regional progress against adaptation, mitigation, NDC, SDG7 and other associated sustainable energy indicators. 	<ul style="list-style-type: none"> ii. Demonstrated efficiencies achieved through streamlining and integration of SPC's energy security projects. iii. Case studies and knowledge sharing products developed and disseminated to appropriate audiences. iv. Energy security funding portfolio expanded resulting from leveraging efforts. v. Clear reporting provided for SPC and partner progress against key organizational, national regional and global energy indicators.
--	--

The above performance requirements are provided as a guide only. The precise performance measures for this job will need further discussion between the jobholder and supervisor as part of the performance development process.

Most challenging duties typically undertaken (complexity):

<ul style="list-style-type: none"> • Ensuring electricity supply systems are sustainable and fit for purpose. • Communicating complex technical concepts in a simple manner appropriate for the target audience. • Coordinating electrical infrastructure installations on-site to ensure safe and efficient completion of works as per design. • Understanding project resource constraints and advising regarding appropriate design, implementation modality and necessary improvements and changes. • Understanding current and future energy demand profiles and ensuring electrical designs are correct and appropriately integrated with existing infrastructure. • Undertaking regular travel to Kiribati, FSM and other SPC energy project sites as needed. • Streamlining technical assistance between multiple electrification projects in different Pacific Island Countries and Territories (PICTs). • Understanding project management requirements for SPC's energy security projects and improving, advising and supporting where needed. • Raising funds to ensure resources are available to support the work of Energy Security Unit (ESU). • Provide sound advice to the Team Leader – Energy Security/ Acting Deputy Director of GEP.
--

Functional relationships & relationship skills:

Key internal and/or external contacts	Nature of the contact most typical
<p>External</p> <ul style="list-style-type: none"> • Counterparts in the Departments /Ministries of Energy and Climate Change • Power Utilities and Independent Power Producers • Contractors and consultants • Donors and partners 	<ul style="list-style-type: none"> • Country work priorities, stakeholder consultations, awareness and training. • Planning, preparation and implementation of work plans • Coordination, collaboration, and partnerships • Funding and financial issues • Investment attraction

	<ul style="list-style-type: none"> • Reporting
Internal <ul style="list-style-type: none"> • Team Leader – Energy Security • Kiritimati Island and FSM Energy Project Managers • Deputy Director Georesources and Energy Program • Director GEM Division • GEP staff • DCRP staff • Other GEM Division staff • CCES Division 	<ul style="list-style-type: none"> • Decision making • Divisional and programme strategy, planning and resource allocation • Development and approval of designs and tender documents • Management support/backstopping • Report preparation and review • Internal knowledge sharing • Collaboration and partnerships • Finance and auditing

Level of Delegation:

Routine Expenditure Budget: Nil

Budget Sign-off Authority without requiring approval from direct supervisor: Nil

Personal specification:

This section is designed to capture the expertise required for the role at the 100% fully effective level. (This does not necessarily reflect what the current position holder has.) This may be a combination of knowledge / experience, qualifications or equivalent level of learning through experience or key skills, attributes or job specific competencies.

Qualifications

Essential:	Desirable:
<ul style="list-style-type: none"> • A post-graduate degree in electrical engineering, energy, renewable energy and/or related field 	<ul style="list-style-type: none"> • Demonstrated experience in energy access, renewable energy and energy efficiency • Relevant experience in international development and multi-stakeholder coordination • Demonstrated ability to establish / enhance partnerships

Knowledge and experience

Essential:	Desirable:
<ul style="list-style-type: none"> • At least 10 years of relevant experience in the electricity sector • At least 5 years of project/programme management experience • Experience in the detailed design and optimization of electricity supply systems particularly with medium and low voltage distribution networks • Extensive experience with design, installation and commissioning of solar PV, BESS and diesel hybrid systems • Field experience with site supervision and quality control 	<ul style="list-style-type: none"> • 5 years of experience working in the Pacific and/or a developing region • High level of interpersonal skills and work in a cross-cultural environment • Excellent computer skills, including high proficiency in Microsoft Office and use of the Internet • Ability to engage with donors, partners and other stakeholders • Experience in energy-related research and analysis • Awareness of PICT's energy priorities

<ul style="list-style-type: none"> • Electrical health and safety experience (low and medium voltage systems) • Experience with mini grids, micro grids and standalone solar PV and hybrid systems • Experience reviewing and developing electrical design drawings and tender documentation for electrification goods, services and works • Experience working with and building capacity of electric utilities • Willingness to undertake frequent travel within the region • Excellent oral and written English communication skills 	<ul style="list-style-type: none"> • Experience developing and delivering training materials • Ability to take initiative and work without supervision • Experience writing proposals for energy security projects • Familiarization with Australian and U.S. electrical standards
---	--

Key skills, attributes and job specific competencies

The following levels would typically be expected for the 100% fully effective level:

Expert level	<ul style="list-style-type: none"> • Electrical engineering: design, installation, commissioning, troubleshooting and operation of mini and micro grids • Solar PV, diesel generators, BESS and control systems (e.g. ComAp) • Project and/or programme management • Provide sound technical advice to Energy Project Managers and Team Leader – Energy Security • Identify and advocate for new and innovative ideas and solutions that will help projects address their challenges and fulfill their purpose
Advanced level	<ul style="list-style-type: none"> • Electric utility operations, management, administration and customer service systems • Development and delivery of training and other capacity building initiatives • Critical thinking and foster partnerships • Support and contribute to teamwork and the implementation of GEP’s work plan • Electrical safety protocol for low and medium voltage networks • Familiarity and compliance with Australian and U.S. standards for electrical
Working knowledge	<ul style="list-style-type: none"> • Energy audits – data collection, analysis and presentation • Demand side management and energy efficiency initiatives • National, regional and global energy targets • Proposal writing for grant opportunities
Awareness	<ul style="list-style-type: none"> • SPC Regulations and Policies • Gender and cultural sensitivity of working in a male dominated sector and the Pacific region

Key behaviors

*All employees are measured against the following **key behaviors** as part of Performance Development:*

- Change and Innovation
- Interpersonal Skills
- Teamwork
- Promotion of Equity and Equality
- Judgement
- Building Individual Capacity

- Effective Communications & Relationships
- Leadership
- Coaching and Development
- Strategic Perspective

Personal Attributes

- High level of professional integrity and ethics
- Friendly demeanor
- Demonstrated high level commitment to customer service

Change to Job Description:

From time to time it may be necessary to consider changes in the job description in response to the changing nature of the work environment – including technological requirements or statutory changes. Such change may be initiated as necessary by SPC. This Job Description may also be reviewed as part of the preparation for performance planning for the annual performance cycle.