

POWER ENGINEERING COMPETENCY FRAMEWORK			
SKILLS MAP - Senior Engineer / Engineer / Assistant Project Manager			
Sector	Power Engineering in the Public Service		
Track	Engineering / Project Management		
Occupation	Electrical Engineer		
Job Role	Senior Engineer / Engineer / Assistant Project Manager		
Job Role Description	<p>The Senior Engineer / Engineer / Assistant Project Manager is responsible for coordinating the design, construction, commissioning, and operations and maintenance for electrical and power projects. He/She defines project scope, goals and objectives in collaboration with technical personnel and liaises with them for developing project plans. He monitors project progress as per technical specifications and cost, time and quality requirements and coordinates project reviews for compliance with regulatory requirements and industry standards. He also prepares the budget performance and cash flow monthly progress reports</p> <p>He liaises with public sector agencies, internal and external stakeholders, and contractors for electrical and power projects. He also conducts tendering exercises and facilitates contractor selection and awarding of contracts. He assesses contractor works and performance for compliance with contract terms, technical standards and regulatory requirements. He implements continuous improvement initiatives to improve workplace safety and implements Permit-to-Work Systems. To drive decarbonisation, decentralisation and digitalisation initiatives, he recommends innovation initiatives and implements green initiatives.</p> <p>He possesses good interpersonal and communication skills in liaising with agencies and stakeholders to implement electrical and power projects. In addition, he is systematic, safety-conscious and solution-oriented in implementing projects in line with requirements.</p>		
Critical Work Functions and Key Tasks / Performance Expectations	Critical Work Functions	Key Tasks	Performance Expectations (For legislated / regulated occupations)*
	Manage power generation and/or distribution projects	Coordinate the design, construction, commissioning, and operations and maintenance for electrical and power projects	In accordance with: - Electricity Act including subsidiary legislations - Energy Market Authority of Singapore Act - International Electrotechnical Commission (IEC) Standards - International Organization for Standardisation (ISO) Standards - Singapore Standards for Electrical and Power sector - Workplace Safety and Health (WSH) Act * Performance Expectations are non-exhaustive and subject to prevailing regulations and industry standards
		Define project scope, goals and objectives in collaboration with technical personnel	
		Liaise with stakeholders for developing project plans including budget, timeline, quality, and success metrics	
		Monitor staffing and resource availability to support project implementation	
		Monitor project progress as per technical specifications and cost, time and quality requirements	
		Coordinate project reviews for compliance with regulatory requirements and industry standards	
		Identify issues and risks for a specified functional area within a project	
		Prepare budget performance and cash flow monthly progress reports	
	Manage key stakeholders / Manage contractors	Liaise with public sector agencies for electrical and power projects	
		Liaise with internal and external stakeholders	
		Conduct tendering exercises for electrical and power projects	
		Facilitate contractor selection and the awarding of contracts according to agency requirements	
		Assess contractor works across functions for fulfilment of contract terms	
		Assess contractor performance and compliance with technical standards and codes of practice	
	Manage safety, health and environment	Implement continuous improvement projects to improve safety in the workplace	
		Review safe work practices for contractors	
		Monitor workplace adherence to relevant sector regulations and codes of practice	
		Implement policies and standard operating procedures for Permit-to-Work systems	
		Ensure compliance with the agency's environmental sustainability practices, policies and procedures	
Contribute to decarbonisation, decentralisation and digitalisation initiatives	Keep abreast of national energy and power policies, strategies and frameworks		
	Implement innovation and process improvement initiatives to leverage new electrical and power technologies		
	Conduct feasibility studies and assessments of new electrical and power technologies		
	Implement green initiatives and sustainability programmes		
	Oversee initiatives for implementation of distributed power technologies		
	Analyse data for identification of operational and strategic insights		
Skills & Competencies	Technical Skills and Competencies		Critical Core Skills
	Business Intelligence and Data Analytics	Level 3	Collaboration Intermediate

	Continuous Improvement Management	Level 4	Communication	Intermediate	
	Contract and Contractor Management	Level 3	Problem Solving	Intermediate	
	Cybersecurity Framework Application	Level 3	Transdisciplinary Thinking	Basic	
	Emergency Response and Crisis Management	Level 4	Decision Making	Basic	
	Engineering Problem Solving	Level 4	Customer Orientation	Intermediate	
	Engineering Safety Standards Interpretation	Level 4	Building Diversity	Basic	
	Environmental Sustainability Management	Level 4	Digital Fluency	Intermediate	
	Equipment and Systems Installation and Commissioning	Level 3	Developing People	Basic	
	Innovation Management	Level 4	Adaptability	Intermediate	
	Inter-agency Collaboration	Level 4	Influence	Intermediate	
	Modelling, Simulation and Visualisation	Level 3	Self Management	Intermediate	
	Organisational Resource Management	Level 4			
	Power Engineering Management	Level 4			
	Project Management	Level 4			
	Regulatory Compliance and Risk Management	Level 4			
	Renewable Energy Technologies Application	Level 4			
	Smart Grid Implementation	Level 4			
	Stakeholder Management	Level 4			
	Strategy Development	Level 4			
	Technical Inspection	Level 3			
	Technology and Systems Application	Level 4			
	Workplace Safety and Health Framework Implementation	Level 4			
Programme Listing	For a list of training programmes available for the Power Engineers in the Public Service, please refer to separate document on training courses.				

The information contained in this document serves as a guide.