POWER ENGINEERING COMPETENCY FRAMEWORK			
SKILLS MAP - Senior Associate Engineer / Associate Engineer (Energy Management Systems)			
Sector	Power Engineering in the Public Service		
Track	Monitoring & Control		
Occupation	Assistant Electrical Engineer		
Job Role	**Senior Associate Engineer / Associate Engineer (Energy Management Systems)**		
Job Role Description	The Deputy Director / Senior Specialist / Specialist (Energy Management Systems) is responsible for endorsing the standards for Information Technology (IT) and Operational Technology (OT) systems. He/She leads failure analysis for Energy Management Systems and provides expert advice to ensure prompt resolution of faults. He leads the formulation of cybersecurity initiatives and plans, advises on incident investigation, and leads security reviews and audits. He also leads the design, implementation and management of department security initiatives, and advises on resolution of cybersecurity threats, system abnormalities and information security issues. He leverages data analytics to enhance strategic decision-making. He also advises on practical implications of decarbonisation, decentralisation and digitalisation initiatives. He possesses good leadership and interpersonal skills. Furthermore, he is a strategic thinker with a global mindset who actively contributes to national energy and power policies, strategies and frameworks to balance economic competitiveness, environmental sustainability, energy security.		
Critical Work Functions and Key Tasks / Performance Expectations	**Critical Work Functions**	**Key Tasks**	**Performance Expectations (For legislated / regulated occupations)***
	Oversee energy management systems	Assist in maintaining Information Technology (IT) and Operational Technology (OT) systems to support the needs of the division	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
		Perform first level technical support for Energy Management Systems	
		Provide technical and operational support to System Control and Gas System Supervision departments	
		Perform checks on Sectorial Detection & Early Warning System (SDEWS)	
		Carry out the construction, modification and verification of system schematic diagrams and databases	
	Manage cybersecurity risks	Support implementation, configuration and administration of security software and tools for OT systems	
		Assist in monitoring, detecting and reporting cybersecurity threats, system abnormalities and information security issues	
		Assist in Incident Response (IR) reporting and support when analysis confirms actionable incident	
		Coordinate annual technical security reviews and ISO 27001 audits with internal/external audit consultants	
		Monitor and track cybersecurity risks mitigation and exceptions	
	Contribute to decarbonisation, decentralisation and digitalisation initiatives	Keep abreast of national energy and power policies, strategies and frameworks	
		Gather data on latest trends in electrical and power technologies	
		Gather data for green initiatives using clean and renewable energy	
		Record data for operational analytics	

Skills & Competencies	**Technical Skills and Competencies**		**Critical Core Skills**	
	Business Intelligence and Data Analytics	Level 2	Collaboration	Basic
	Continuous Improvement Management	Level 3	Problem Solving	Basic
	Contract and Contractor Management	Level 2	Sense-Making	Basic
	Cyber Incident Management	Level 3	Communication	Basic
	Cyber Risk Detection and Monitoring	Level 2	Digital Fluency	Basic
	Cybersecurity Framework Application	Level 2	Customer Orientation	Basic
	Emergency Response and Crisis Management	Level 3	Adaptability	Basic
	Engineering Problem Solving	Level 3	Influence	Basic
	Environmental Sustainability Management	Level 3	Self Management	Basic
	Inter-agency Collaboration	Level 3		
	Internet of Things (IoT) Application	Level 3		
	Modelling, Simulation and Visualisation	Level 2		
	Operational Technology Security Audit	Level 4		
	Power Engineering Management	Level 3		

	Power Strategy Planning and Governance	Level 3	
	Regulatory Advisory	Level 3	
	Regulatory Compliance and Risk Management	Level 3	
	Stakeholder Management	Level 3	
	Technology and Systems Application	Level 3	
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.