

POWER ENGINEERING COMPETENCY FRAMEWORK			
SKILLS MAP - Deputy Director / Senior Specialist / Specialist (Regulatory)			
Sector	Power Engineering in the Public Service		
Track	Regulatory		
Occupation	Electrical Engineer		
Job Role	Deputy Director / Senior Specialist / Specialist (Regulatory)		
Job Role Description	<p>The Deputy Director / Senior Specialist / Specialist (Regulatory) is responsible for driving collaboration with public sector agencies and industry to update and enhance regulatory frameworks, policies and technical measures, legislations, codes of practice and performance standards for power systems and emerging technologies. He/She leads industry and inter-agency committees for technical matters, technology discussions and policy decisions. He provides expert advice on resolution of power failure and electrical incidents, as well as appropriate regulatory action.</p> <p>He conducts applicant assessment and checks for Electrical Engineer's Licence and licensing of electrical installations, and commissions inspections on electricity and supply installations. He formulates strategies to ensure the safety, security and reliability of the electricity system. He also evaluates feasibility and cost effectiveness of electricity transmission and distribution network projects. He acts as a catalyst and nexus between different parties to drive decarbonisation, decentralisation and digitalisation initiatives.</p> <p>He possesses good leadership and interpersonal skills, and promotes safe electricity use through awareness and education initiatives for the industry and the public. 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.</p>		
Critical Work Functions and Key Tasks / Performance Expectations	Critical Work Functions	Key Tasks	Performance Expectations (For legislated / regulated occupations)*
	Establish regulatory framework for power industry	Recommend changes and enhancements to regulatory frameworks, policies and technical measures/processes for power systems	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
		Drive collaboration with public sector agencies and industry to update and enhance legislation, codes of practice and performance standards	
		Endorse technical regulations and requirements for new and emerging technologies	
		Lead industry and inter-agency committees for technical matters, technology discussions and policy decisions	
	Manage licensing and compliance operations	Approve competency criteria for licensees carrying out electrical works	
		Conduct applicant assessment and checks for Electrical Engineer's Licence and licensing of electrical installations	
		Drive technical training and development plans for licensees	
		Manage the commissioning of inspections on electricity and supply installations	
		Advise on resolution of power failure and electrical incidents involving low and high voltage consumer electricity or installations	
		Guide investigation of non-compliance or breaches of legislation, licence conditions, codes of practice and performance standards	
		Advise on appropriate regulatory action against parties who breach regulatory requirements	
	Ensure power system safety, security and reliability	Formulate strategies to ensure the safety, security and reliability of the electricity system in the most economic manner	
		Provide technical expertise to enhance licensees' safety plans and emergency preparedness	
		Commission reviews of power systems with licensees to ensure continued resilience of the electricity infrastructures	
		Promote safe electricity use through awareness and education initiatives for the industry and the public	
	Oversee electricity network projects	Establish strategy and long-term plans for electricity transmission and distribution network development/renewal	
		Approve project feasibility assessments and site suitability evaluations	
		Evaluate feasibility and cost effectiveness of electricity transmission and distribution network projects	
		Drive stakeholder collaboration for Concept and Master Plan Review for land related matters pertaining to the electricity system including power stations and substations	
Review cyber and physical security of the electricity critical infrastructure			
Contribute to decarbonisation, decentralisation and digitalisation initiatives	Advise on national energy and power policies, strategies and frameworks to balance economic competitiveness, environmental sustainability and energy security		
	Drive industry and inter-agency collaboration for research and assessment of new electrical and power technologies		
	Provide expert advice on regulatory and power system implications of innovation initiatives leveraging new electrical and power technologies		
	Champion industry implementation of green initiatives for application of clean and renewable energy		
	Advise on strategies for adoption of best practices for transmission, distribution and the integration of distributed generation sources		
	Champion the use of data analytics for strategic decision-making		
Skills & Competencies	Technical Skills and Competencies		Critical Core Skills

	Business Intelligence and Data Analytics	Level 5	Decision Making	Advanced	
	Continuous Improvement Management	Level 6	Problem Solving	Advanced	
	Cyber Incident Management	Level 6	Sense-Making	Advanced	
	Demand Response Management	Level 6	Communication	Advanced	
	Distributed Energy Resources Implementation and Interconnection	Level 6	Collaboration	Advanced	
	Electricity Network Incident Management	Level 5	Developing People	Advanced	
	Electricity Network Performance Monitoring	Level 5	Customer Orientation	Advanced	
	Electricity Network Planning	Level 5	Transdisciplinary Thinking	Advanced	
	Emergency Response and Crisis Management	Level 6	Digital Fluency	Advanced	
	Energy Security and Reliability Management	Level 6	Creative Thinking	Advanced	
	Energy Storage Systems Management	Level 6	Learning Agility	Advanced	
	Engineering Asset Management	Level 5	Adaptability	Advanced	
	Engineering Safety Standards Interpretation	Level 5	Influence	Advanced	
	Environmental Sustainability Management	Level 6	Self Management	Advanced	
	Equipment and Systems Installation and Commissioning	Level 5			
	Innovation Management	Level 6			
	Inter-agency Collaboration	Level 6			
	Internet of Things (IoT) Application	Level 6			
	Modelling, Simulation and Visualisation	Level 5			
	Network Technical Specifications Development	Level 5			
	Policy and Regulations Framework Development for Technology Advancement	Level 6			
	Policy Development	Level 6			
	Policy Implementation and Revision	Level 6			
	Power Engineering Management	Level 5			
	Power Plant Incident Investigation	Level 5			
	Power Quality Management	Level 6			
	Power Strategy Planning and Governance	Level 6			
	Public Health and Safety Management	Level 6			
	Regulatory Advisory	Level 5			
	Regulatory Compliance and Risk Management	Level 6			
	Solid-State Power System Apparatus Implementation	Level 6			
	Stakeholder Management	Level 6			
	Strategy Development	Level 6			
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.