

**POWER ENGINEERING COMPETENCY FRAMEWORK FOR POWER ENGINEERING PROFESSIONALS IN PUBLIC SERVICE  
TECHNICAL SKILLS AND COMPETENCIES (TSC) REFERENCE DOCUMENT**

<b>TSC Category</b>	Maintenance Management					
<b>TSC Title</b>	Engineering Asset Management					
<b>TSC Description</b>	Manage electrical asset lifecycles from planning to replacement and/or disposal for performance optimisation and compliance					
<b>TSC Proficiency Description</b>	<b>Level 1</b>	<b>Level 2</b>	<b>Level 3</b>	<b>Level 4</b>	<b>Level 5</b>	<b>Level 6</b>
		<Insert TSC Code>	<Insert TSC Code>	<Insert TSC Code>	<Insert TSC Code>	
		Support electrical asset lifecycle management activities based on prescribed plans and procedures	Oversee electrical asset maintenance and renewal plans, and analyse asset conditions for performance optimisation and compliance	Review electrical asset management plans, including asset maintenance and renewal, according to industry standards and regulatory requirements	Formulate or approve electrical asset management strategies and plans according to industry best practices and regulatory requirements	
<b>Knowledge</b>		<ul style="list-style-type: none"> <li>Principles of electrical asset management</li> <li>Principles of design, installation, commissioning, operation, performance and maintenance of main plants, equipment, and systems or networks</li> <li>Typical or industry-wide vendor warranties on plants, equipment, and systems or networks, and recommended spares</li> <li>Methods of asset technical integrity analysis</li> <li>Principles of inspection and reporting</li> <li>Principles of optimising Maintenance, Inspection and Testing Plans (MITPs)</li> <li>Methods of performing routine technical audits on plants, equipment, and systems or networks</li> </ul>	<ul style="list-style-type: none"> <li>Requirements of international electrical asset management system</li> <li>Asset lifecycle management activities and their processes</li> <li>Principles and procedures in Reliability-Centred Maintenance (RCM)</li> <li>Asset condition-based monitoring principles, standards, procedures and practices</li> <li>Principles of risk-based inspection</li> <li>Principles of inspection reporting</li> <li>Procedures and methods of corrosion management applicable to power generation</li> </ul>	<ul style="list-style-type: none"> <li>International electrical asset management system standards</li> <li>Risk assessment methods for evaluating asset lifecycle management activities</li> <li>Methods of corrosion management and analysis applicable for power generation</li> <li>Principles of Engineering Criticality Assessment (ECA) applicable for power generation</li> <li>Principles of Asset Integrity Management Systems (AIMS)</li> <li>Plant, network and equipment design engineering principles and practices</li> <li>Principles of data integrity management</li> </ul>	<ul style="list-style-type: none"> <li>Electrical asset lifecycle analysis, design principles and practices</li> <li>Risk assessment and management applications in asset management</li> <li>Principles of Asset Integrity Management Systems (AIMS) and system specifications and integration</li> <li>Methods for asset integrity framework development and implementation</li> <li>Regulatory requirements for asset integrity</li> <li>Asset renewal planning practices</li> <li>Asset maintenance trade-offs</li> <li>Technological advancements in asset reliability and integrity maintenance</li> <li>Industry best practices for strategies and</li> </ul>	

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					<p>techniques in electrical asset performance and maintenance</p> <ul style="list-style-type: none"> <li>Regulatory requirements for asset integrity</li> </ul>	
<b>Abilities</b>		<ul style="list-style-type: none"> <li>Analyse electrical asset conditions, incidents, and performance throughout the asset lifecycle of critical assets identified for reporting</li> <li>Monitor asset conditions and risk-based inspection activities</li> <li>Conduct asset integrity audits and recommend corrective actions</li> <li>Identify and report electrical assets due for maintenance and/or renewal</li> <li>Coordinate of various procedures and processes involved in implementing equipment renewal work plans</li> <li>Contribute to continuous improvement activities associated with asset integrity</li> </ul>	<ul style="list-style-type: none"> <li>Supervise the compilation, analysis and reporting of asset conditions, incidents and performance throughout the asset lifecycle of identified critical electrical assets</li> <li>Monitor the implementation of asset lifecycle activities to identify potential issues</li> <li>Monitor results of risk-based inspections of plants, equipment and systems</li> <li>Analyse results from condition monitoring activities</li> <li>Supervise asset integrity audits and recommend corrective actions</li> <li>Develop asset integrity reports with recommended improvements for management review</li> <li>Interpret approved maintenance and/or renewal programmes, and work with relevant teams to execute them according to work plans</li> </ul>	<ul style="list-style-type: none"> <li>Review and recommend improvements on electrical asset management lifecycle activities</li> <li>Review asset lifecycle activities</li> <li>Manage asset integrity plan deployment</li> <li>Incorporate asset integrity procedures into predictive and preventive maintenance planning and scheduling</li> <li>Review asset integrity audit reports to identify issues and recommend corrective measures</li> <li>Review asset integrity compliance reports</li> </ul>	<ul style="list-style-type: none"> <li>Formulate or approve electrical asset management policies, strategies and practices</li> <li>Review and approve maintenance and/or renewal programmes for assets based on defined parameters</li> <li>Integrate asset integrity management standards and systems throughout the organisation</li> <li>Drive compliance of asset management system and framework</li> <li>Drive improvements in all aspects of asset management</li> <li>Review asset integrity compliance reports to ensure compliance with regulatory and corporate requirements for plant, equipment and system asset integrity</li> </ul>	