

Job Description

Independent System and Market Operator

PART 1: POSITION DETAILS

Position Title	Director – Generation Expansion Planning	Employee Code	
Business Division	Integrated System Planning	Pay Scale	MG-6
Reports To	Senior Director – Demand Forecast and Generation Planning		
Location:	Islamabad	Date of Preparation:	Sep 2026

PART 2: JOB SUMMARY

To lead the preparation, review, and publication of the Indicative Generation Capacity Expansion Plan (IGCEP) for both medium and long term. The role ensures that generation expansion plans are technically sound, economically efficient, reliable, and aligned with system demand, resource availability, national Electricity Policy and Plan objectives, and power sector planning requirements.

PART 3: KEY TASKS & RESPONSIBILITIES

- Lead the preparation and review of the Indicative Generation Capacity Expansion Plan (IGCEP) for medium- and long-term horizons, ensuring an optimal, reliable, and economically efficient generation mix.
- Lead generation planning studies and specialized technical assessments to determine long-term generation capacity requirements and develop recommendations and reports.
- Review and validate generation planning data and assumptions, including plant commissioning schedules, capacity, technology, energy production, capacity factors, fuel consumption, capital requirements, and environmental impacts.
- Evaluate emerging generation technologies and resource developments and assess their implications for the future generation mix and power system planning.
- Develop and review SOPs, planning methodologies, KPIs, and best practices for generation expansion planning in line with international practices and organizational objectives.
- Coordinate with relevant stakeholders and provide technical guidance on generation planning matters, while overseeing staff development, training needs, and capacity building requirements.

PART 4: QUALIFICATION & EXPERIENCE

- Bachelor's degree (BE/BSc Engineering) in Electrical Engineering, preferably with specialization in Power Systems, from an HEC-recognized or internationally accredited university.
- A Master's degree (MSc/ME) in Electrical Engineering, Power Systems, Energy, or a related field will be considered an advantage.
- Registration with Pakistan Engineering Council (PEC) is required.
- Minimum 12 years of post-qualification experience in the power/energy sector.
- Demonstrated experience in generation expansion planning, capacity planning, resource assessment, and power system planning studies.
- Strong knowledge of generation technologies, generation mix optimization, capacity requirements, plant techno-economic parameters, fuel requirements, capacity factors, environmental considerations, and investment requirements.
- Proficiency in generation planning and optimization tools/software, such as PLEXOS, Balmorel, or other industry standard power system planning tools.
- Sound understanding of Pakistan's power sector, Grid Code, NEPRA regulations, national energy policies, and generation planning frameworks, with the ability to coordinate effectively with relevant stakeholders.
- Demonstrated ability to thrive in a target-oriented, dynamic, and high-pressure work environment, with strong interpersonal, communication, coordination, and teamwork skills.

Job Description

Independent System and Market Operator

PART 1: POSITION DETAILS			
Position Title	Lead Engineer – Demand Side Management	Employee Code	
Business Division	Integrated System Planning	Pay Scale	MG-4
Reports To	Director – Demand Side Management & Forecast		
Location:	Islamabad	Date of Preparation:	Sep 2026
PART 2: JOB SUMMARY			
To develop and coordinate Demand-Side Management (DSM) programs to optimize electricity consumption, manage peak demand, and improve the overall energy demand profile of the country. The role ensures that DSM initiatives are technically and economically assessed, aligned with national energy efficiency objectives, and effectively coordinated with relevant stakeholders for implementation.			
PART 3: KEY TASKS & RESPONSIBILITIES			
- Develop DSM program concepts that increase the country's overall energy demand, including load-reduction initiatives, peak-shaving strategies, and customer focused efficiency schemes. - Conduct assessments of sectoral DSM potential (residential, industrial, and commercial) and recommend prioritized interventions. Prepare demand outlook reports, forecast. - Responsible for identifying viable DSM opportunities, quantifying savings potential, assessing cost-effectiveness, and developing implementation frameworks that support national energy efficiency targets. - Develop and review SOPs, forecasting methodologies, KPIs, and best practices for DSM. - Coordinate with regulators, DISCOs, and stakeholders to ensure programs align with national policy, tariff structures, and consumer behaviour trends. - Respond to queries and provide data and information to National Assembly/Senate, NEPRA, Ministry of Energy (Power Division), Ministry of Planning Development and Reforms.			
PART 4: QUALIFICATION & EXPERIENCE			
- Bachelor's degree (BE/BSc Engineering) in Electrical Engineering, preferably with specialization in Power Systems, from an HEC-recognized or internationally accredited university. - A Master's degree (MSc/ME) in Electrical Engineering, Power Systems, Energy, or a related field will be considered an advantage. - Registration with Pakistan Engineering Council (PEC) is required. - Minimum 8 years of post-qualification experience in the power/energy sector. - Demonstrated experience in designing and evaluating DSM programs, demand response initiatives, energy efficiency measures, and sectoral demand management strategies. - Strong knowledge of electricity demand patterns, peak demand management, energy efficiency, load shifting, demand response, tariff structures, and consumer behaviour. - Demonstrated ability to assess DSM potential, quantify energy and demand savings, conduct cost-benefit and sensitivity analysis, and develop implementation frameworks for DSM initiatives. - Sound understanding of Pakistan's power sector, Grid Code, NEPRA regulations, tariff structures, national energy policies, and energy efficiency frameworks, with the ability to coordinate effectively with DISCOs, regulators, government entities, and other relevant stakeholders. - Demonstrated ability to thrive in a target-oriented, dynamic, and high-pressure work environment, with strong interpersonal, communication, coordination, and teamwork skills.			

Job Description

Independent System and Market Operator

PART 1: POSITION DETAILS			
Position Title	Lead Engineer – Generation Planning (Medium Term)	Employee Code	
Business Division	Integrated System Planning	Pay Scale	MG-4
Reports To	Director – Generation Expansion Planning		
Location:	Islamabad	Date of Preparation:	Sep 2026
PART 2: JOB SUMMARY			
To develop, review, and coordinate the analysis required for the development, review, and publication of the Indicative Generation Capacity Expansion Plan (IGCEP) for the medium-term horizon of 2 – 5 years. The role will ensure that generation expansion requirements are technically sound, economically optimal, reliable, and aligned with system demand, resource availability, and national power sector planning objectives.			
PART 3: KEY TASKS & RESPONSIBILITIES			
- Develop and review Medium-Term Generation Plans (3–5 years), identifying capacity requirements, reserve margins, and potential generation shortages or surpluses. - Monitor committed and under-construction generation projects, commissioning timelines, plant retirements, life extensions, and maintenance schedules. - Assess medium-term generation risks, including fuel supply constraints, hydrological variability, renewable intermittency, and planned/unplanned outages. - Evaluate fuel availability and generation mix requirements, coordinating with relevant fuel suppliers and stakeholders to support reliable and cost-effective generation planning. - Conduct economic dispatch, maintenance planning, generation scheduling, and optimization studies using PLEXOS and other appropriate planning tools. - Coordinate Medium-Term Generation Planning with Long-Term Generation Planning and Short-Term Operational Planning, and provide technical inputs for IGCEP/TSEP reviews, regulatory proceedings, and annual supply planning reports. - Respond to the queries and provide the relevant data as requested by Senate, National Assembly, NEPRA, Power Division, Ministry of energy, Ministry of Planning Development and Reforms etc.			
PART 4: QUALIFICATION & EXPERIENCE			
- Bachelor’s degree (BE/BSc Engineering) in Electrical Engineering, preferably with specialization in Power Systems, from an HEC-recognized or internationally accredited university. - A Master’s degree (MSc/ME) in Electrical Engineering, Power Systems, Energy, or a related field will be considered an advantage. - Registration with Pakistan Engineering Council (PEC) is required. - Minimum 8 years of post-qualification experience in the power/energy sector. - Demonstrated experience in medium term generation planning, capacity assessment, generation scheduling, maintenance planning, and resource adequacy studies. - Strong knowledge of generation technologies, fuel availability, economic dispatch, reserve requirements, hydrology, renewable generation, and medium-term generation risks. - Proficiency in PLEXOS, or other generation planning and optimization tools for simulation, dispatch, and generation planning studies. - Sound understanding of Pakistan’s power sector, Grid Code, NEPRA regulations, national energy policies, and generation planning frameworks, with the ability to coordinate effectively with relevant stakeholders. - Demonstrated ability to thrive in a target-oriented, dynamic, and high-pressure work environment, with strong interpersonal, communication, coordination, and teamwork skills.			