

DESIGN AND MONITORING FRAMEWORK FOR TRANCHE 4

Impact the Project is Aligned with			
The improved transmission infrastructure and management, and energy market transparency and efficiency aligned with the National Power Policy 2013 ^a and Pakistan 2025: One Nation, One Vision ^b			
Results Chain	Performance Indicators with Targets and Baselines	Data Sources and Reporting Mechanisms	Risks and Critical Assumptions
Outcome Improved coverage, reliability, and quality of the power transmission service in Pakistan	a. 5.0 GW of additional peak power supplied (metered) through the grid by 2026 (2015 baseline: 22.9 GW) (OP 1.3.1, OP 3.2.5) b. Transmission losses reduced to less than 2.5% in 2026 (2013 baseline: 2.9%) (OP 1.3.1, OP 3.2.5) c. Full compliance with NEPRA Performance Standards Transmission Rules, 2005 by 2026 (2013 baseline: partial compliance) (OP 6.1, OP 6.2) d. Full compliance with the Transmission License and Grid Code by 2026 (2013 baseline: partial compliance) (OP 6.1, OP 6.2)	a–b. NEPRA’s annual state of the industry report. c. NTDC’s annual performance evaluation report d. NEPRA’s annual state of the industry report	R: Delayed progress on policy, regulatory, and institutional reforms A: Power demand does not continue to grow by at least 4.5% annually or grows by more than 7.0% annually. A: Power supplies and imports are not increased to meet demand.
Outputs 1. Transmission system capacity augmented and expanded	By 2026: 1a. 350 km of new climate-resilient 220 kV transmission lines commissioned and are operational in the project areas (2022 baseline: 11,438 km) (OP 3.2.5)	1a–1e. NEPRA’s annual state of the industry report, quarterly progress report	R: Political change in the country may impact implementation.

	<p>1b. Three existing substations in the project areas expanded through installation of eight 220 kV line bays (2022 baseline: 0) (OP 3.1.3)</p> <p>1c. Additional 2,680 MVA substation capacity at six substations in the project areas commissioned (2022 baseline: 30,610 MVA) (OP 3.2.5, OP 3.1.3)</p> <p>1d. Six substations in the project areas augmented and made climate- and disaster-resilient. (2022 baseline: 0) (OP 3.2.5)</p> <p>1e. New 220 kV climate- and disaster-resilient substation in Peshawar area of west Pakistan commissioned. (2022 baseline: 0) (OP 3.1.3, OP 3.2.5)</p> <p>1f. NTDC's Gender Mainstreaming Policy adopted at corporate level (2022 baseline: 0) (OP 2.2.3, OP 2.3.2)</p> <p>1g. At least, 80% of NTDC's male and female staff reported improved knowledge on Act on Protecting Women against Harassment at Workplace (adopted in 2010)^c (2022 baseline: 0) (OP 2.2.3, OP 2.3.2, OP 6.1.1)^d</p> <p>1h. Grievance Redress Committee and Standing</p>	<p>1f–1h. TA gender consultant's quarterly report, NEPRA's annual state of the industry report, quarterly progress report, training exit survey results for measuring the awareness level</p> <p>1i. NEPRA's annual state of the industry report, quarterly progress report</p>	
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	<p>Committee received capacity building training, tools and mechanisms to redress staff grievances (2022 baseline: NA). (OP 2.2.3, OP 2.3.2)</p> <p>1i. Total annual greenhouse gas emissions reduced to about 177,193 tons per year (2022 baseline: 0) (OP 3.1)</p>		
2. Gender capacity of NTDC management and staff strengthened	<p>2a. HR training and recruitment plans updated as a result of HR and Gender Diagnostic Assessment (2022 baseline: NA). (OP 2.2.3, OP 2.3.2)</p> <p>2b. Female interns increased in (i) electrical engineering to 90 (50%) (2022 baseline: 56 [or 31%] female interns of total 180 interns), and (ii) civil engineering to 5 (33%) (2022 baseline: 2 [13%] female interns of total 15 interns) (OP 2.2)</p> <p>2c. Two female students enrolled in postgraduate education program in energy and are provided with scholarships (2022 baseline: 0) (OP 2.2, OP 2.1.1)^e</p>	<p>2a–2f. TA gender consultant’s quarterly report, survey of training participants, PMU training reports</p> <p>NEPRA’s annual state of the industry report, quarterly progress report</p> <p>University enrollment records</p>	<p>R: Political change in the country may impact implementation.</p> <p>A: Low incentives for women to be employed in the sector</p>

	<p>2d. Job training needs of women staff identified (2022 baseline: NA) (OP 2.1, OP 2.1.1)</p> <p>2e. At least 20% female staff of NTDC participated in professional technical trainings (2022 baseline: 7.4%) (OP 2.1, OP 2.1.1, OP 6.1.1)</p> <p>2f. Increased number of women in technical positions in NTDC to 20% (baseline: 10 [7%]) (OP 2.2, OP 2.2.1)</p> <p>2e. At least 20% female staff of NTDC participated in professional technical trainings (2022 baseline: 7.4%) (OP 2.1, OP 2.1.1, OP 6.1.1)</p> <p>2f. Increased proportion of women in technical positions in NTDC to 20% (baseline: 10 [7%]) (OP 2.2, OP 2.2.1)</p>		
<p>Key Activities with Milestones</p> <p>1. Transmission system capacity augmented and expanded</p> <p>1.1 One turnkey contract awarded (Q2 2022)</p> <p>1.2 One goods contract to be awarded (Q3 2022)</p> <p>1.3 Bid Evaluation Report for transmission line turnkey contract submission to ADB (Q4 2022)</p> <p>1.4 Bidding Documents for goods for substations and transmission lines to be issued (Q4 2022)</p> <p>1.5 Partner with a TVET institution and provide energy-related skills training to women to increase the pool of female technical workers in the energy sector (Q2 2023)</p> <p>1.6 Conduct at least two livelihood trainings to women and girls (Q3 2023)</p> <p>1.7 Provide capacity building to the NTDC's Grievance Redress Committee and Standing Committee, timely redress staff grievances including on sexual harassment (Q4 2023)</p> <p>1.8 Conduct awareness trainings for all NTDC's male and female staff according to the Act on Protection against Harassment of Women at Workplace (2010) (Q1 2024)</p> <p>2. Strengthened gender capacity of NTDC management and staff</p> <p>2.1 Conduct HR and Gender Diagnostic Assessment of NTDC (including HR recruitment policies and practices, and training programs) (Q1 2023)</p>			

- 2.2 Conduct study including through primary sources data collection to identify and address the challenges female intern candidates face to take part in NTDC's internship programs (Q1 2023)
- 2.3 Conduct jobs related skills assessment of female staff (Q2 2023)
- 2.4 Develop and adopt Gender Inclusive HR Policy of NTDC (Q3 2023)
- 2.5 Conduct awareness campaign in country's selected TVET/STEM institutions for attracting more female interns in NTDC's Internship Program (Q1 2024)
- 2.6 Develop gender-inclusive competitive process to promote recruiting female staff in NTDC (Q2 2024)
- 2.7 Provide scholarships funded by TA for two female students' master studies in energy programs in Pakistan (Q3 2024)
- 2.8 Conduct awareness trainings for all NTDC's male and female staff according to the Act on Protection against Harassment of Women at Workplace (2010) (Q1 2024)
- 2.9 Based on HR and Gender Diagnostic Assessment, develop measures to address gender barriers for women participation in training programs (Q2 2024)
- 3. Project management activities**
- 3.1 NTDC to recruit construction supervision firm (Q1 2023)
- 3.2 Contract management plans for awarded contracts prepared (Q1 2023)
- 3.3 International resettlement expert recruited (Q1 2023)

Inputs

ADB: \$189 million (ADB OCR)

Government: \$107 million

A = assumption; ADB = Asian Development Bank; GW = gigawatt; HR = human resources; km = kilometer; kV = kilovolt; MVA = megavolt ampere; NA = not applicable; NEPRA = National Electric Power Regulatory Authority; NTDC = National Transmission and Despatch Company Limited; OCR = ordinary capital resources; OP = operational priority; PMU = project management unit; Q = quarter; R = risk; STEM = Science, Technology, Engineering, and Math; TA = technical assistance; TVET = technical and vocational education and training.

Notes: **Contribution to Strategy 2030 Operational Priorities:** In the PFRR, the expected values and methodological details for all OP indicators to which this operation will contribute results will be detailed in the Contribution to Strategy 2030 Operational Priorities linked document.

^a Government of Pakistan, Ministry of Water and Power. 2013. *National Power Policy, 2013*. Islamabad.

^b Government of Pakistan. 2014. *Pakistan Vision 2025: One Nation, One Vision*. Islamabad.

^c Pakistan Act on Protecting Women against Harassment at Workplace (adopted in 2010, as amended by January 2022, Pakistan).

^d The expected learning outcomes of this training is male and female staff have improved knowledge about harassment and key provisions of the law about the harassment, including the behavior and/or actions (whether physical and/or verbal), which can be perceived as harassment to avoid such behavior and actions, improved knowledge on appropriate work place behavior, and tools, mechanisms and resources available to report, find protection against harassment and/or prevent it. Training assessment surveys of training participants will be conducted prior- and post-training to measure this indicator.

^e This is in line with the project GAP activity "2.2.3. Provide scholarships funded by Gender TA for two female students' master studies in energy programs in Pakistan" according to the available funds to pay these two scholarships.

Source: ADB.