NTDC
REVISED TRANSMISSION INVESTMENT PLAN

RESPONSE TO QUERIES OF PROVINCIAL GOVERNMENT ENERGY BOARDS AND DISCOS

REPLY TO COMMENTS OF PROVINCIAL GOVT. ENERGY DEPTS - AJK

AJK (Power Development Organization Muzaffarabad)		
Sr. #	Query/Suggestion	NTDC Response
1	The Hydro Power Projects included in the AJK Public and Private sectors are not included in the NTDC Investment Plan	• NTDC Investment plan includes those HPPs which are in the approved IGCEP 2022 as per their CODs and for which power evacuation schemes are at 220 kV & above voltage level. • There is only one project (48 MW Jagran-II HPP) shared by AJK Power Development Organization which is in the time horizon of NTDC Investment Plan but it is proposed to be connected at 132kV level, therefore, its evacuation scheme is not part of the NTDC investment plan. • All the other public sector projects which are in IGCEP 2022 with CoD beyond 2026, will be studied in the next iteration of TSEP. • The Private sector projects mentioned in the list provided by AJK PDO were not part of the IGCEP 2022 till June 2031, therefore, they were not considered in TSEP 2022. However, if these projects become part of IGCEP 2024, they would be considered in the next iteration of TSEP.

REPLY TO COMMENTS OF PROVINCIAL GOVT. ENERGY DEPTS - KPK

Government of KPK Energy & Power Department

Sr. #	Query/Suggestion	NTDC Response
1	While going through NTDC investment plan, I would like to express our deep concern that during the preparation of the investment plan for the FY 2023-25, the NTDC being a National Grid Company (NGC) has neither consulted Energy & Power Department of Khyber Pakhtunkhwa nor Pakhtunkhwa Energy Development Organization.	• NTDC Investment Plan has been prepared by considering HPPs of PEDO up to 2024-25 which are planned to be connected with 132 kV network of PESCO and are not included in the Investment Plan of NTDC. • The PEDO projects beyond 2025-26 would be studied in the next iteration of TSEP. PEDO shall be taken on board in this regard. • The complete breakdown of the NTDC Investment Plan is submitted to NEPRA for their approval and the same was shared by NEPRA with all the provincial departments for their comments. • NTDC investment plan involves the investment intended for the next 3 years and it includes generation projects from WAPDA and PPIB for power evacuation. These entities were on-board during grid interconnection studies of these projects.
2	The proposed investment plan of PKR 369 Billion by NTDC is exclusively targeted to address long standing in-house issues of NTDC network such as to remove system constraints, expand the system capacity and to facilitate power evacuations from power stations. Major chunk of the investment of PKR 167 billion allocated for power evacuation is not shared with KPK government.	

REPLY TO COMMENTS OF PROVINCIAL GOVT. ENERGY DEPTS - KPK

Government of KPK Energy & Power Department

Sr. #	Query/Suggestion	NTDC Response
3	SCADA implementation we hope that NTDC Project of SCADA-III will be equally extended to various PEDO HPPs projects under operations/construction	All the HPPs shall be synchronized with the SCADA-III provided the concerned DISCOs have necessary telecom infrastructure (OPGW and PLC) in this regard and the power plants comply with the essential requirements needed for this provision.
4	We request NEPRA being custodian of the Grid Code 2021 to effectively implement in letter and spirit. The planning code under Grid Code categorically directs the stakeholders to maintain necessary planning coordination between Licensee stakeholders for better planning and coordination with regard to their future network projects. NTDC being as NGC and architecture of the Grid Code 2021 prepared TSEP	The Grid Code has been revised by addressing comments of all stakeholders including GoKPK Energy & Power department. TSEP 2022 Phase-1 Report up to year 2025-26 was prepared by NTDC in coordination with the planning teams of DISCOs and in consideration of transmission expansion plans of DISCOs. Moreover, future network model provided by KE was also used in TSEP. For TSEP 2022, all stakeholders were taken on board and objections raised by them were properly addressed by NTDC in different meetings. All stakeholders will be taken on board for next iteration of TSEP as well.

REPLY TO COMMENTS OF PROVINCIAL GOVT. ENERGY DEPTS - KPK

Government of KPK Energy & Power Department

Sr. #	Query/Suggestion	NTDC Response
5	It is to our great surprise that NTDC investment plan totally overlooked evacuation plan of PEDO current ongoing HPP projects which are in construction phase and approved in IGCEP. These HPPs projects include Matiltan HPP (84MW), Gabral Kalam HPP (88MW), Kalam Asrit HPP (238MW), Asrit Kedam HPP (229MW) and Madyan HPP (157MW), all duly.	• NTDC investment plan includes power evacuation of all the generation projects in its network that are envisaged up to 2025-26 and are included in IGCEP 2022. • The HPPs like Koto HPP, Lawi HPP and Gorkin Matiltan HPP that are planned to be evacuated at 132 kV level and are in the jurisdiction of PESCO were considered during preparation of TSEP 2022. • The power evacuation schemes for other projects i.e., 88 Gabral Kalam, 238 MW Kalam Asrit, 229 MW Asrit Kedam and 157 MW Madyan HPPs which were beyond 2025-26 in IGCEP 2022 would be included in the next iteration of TSEP as their CODs in the IGCEP 2024.
6	The Investment Plan indicated for special economic zones and for 220kV Haripur and 220kV Swabi G/stations falls in the domain of PESCO, an independent entity for load management of 132 kV networks to be fed from mentioned NTDC 220kV G/Stations.	NTDC is responsible for the commissioning of 220 kV G/Stations of Haripur and Swabi, whereas, PESCO is responsible for the allied 132 kV network of these special economic zones. The 220 kV G/stations of Haripur and Swabi are included in the NTDC investment plan.

REPLY TO COMMENTS OF PROVINCIAL GOVT. ENERGY DEPTS - KPK

Government of KPK Energy & Power Department

Sr. #	Query/Suggestion	NTDC Response
7	<u>Addendum # 1</u> 500 kV D/C Transmission line from Chitral to Chakdara and Kalam 220 kV D/C Transmission line from Kalam to Chakdara	• The CODs of the planned HPPs linked with these transmission lines are beyond 2025-26. • PEDO has conducted a feasibility study through independent consultant for power evacuation of all the potential HPPs along Swat River valley at 132 kV and 220 voltage levels in consultation of NTDC. The power evacuation schemes of the selected HPPs in IGCEP 2024 would be included in the next iteration of TSEP as well as STP of PESCO. • PEDO has hired a consultant to study power evacuation from Chitral valley to the national grid. • The requirement of the said 500 & 220 kV transmission lines would be studied in the next iteration of TSEP.

REPLY TO COMMENTS OF DISCOs

IESCO

Sr #	Query/Suggestion	NTDC Response
1	220/132kV Zero Point Grid Station	220/132 kV Zero Point grid station is included in the NTDC investment plan. The same was also included in the TSEP 2022.
2	Extension at Islamabad University Grid Station	The extension of 3rd 220/132 kV transformer at Islamabad university grid station is included in the NTDC investment plan. The same was also included in the TSEP 2022.
3	Commissioning of 500/132kV Chakwal Grid Station	NTDC team is well aware of the requirement of power supply position and voltage issues in Chakwal region and therefore proposed 500 kV grid station. Chakwal 500/132kV grid station has been delayed due to certain issues, such as, delay in land acquisition, loan agreement and environmental study by the lender, which were beyond the control of NTDC. Now, after resolution of these issues, NTDC shall complete the said project.

REPLY TO COMMENTS OF DISCOs

MEPCO

Sr #	Query/Suggestion	NTDC Response
1	Non-inclusion of 220 kV Layyah grid station in TSEP	• In the time horizon of NTDC Investment Plan, a 220 kV grid station at Layyah was not required in view of load demand of the region. • TSEP 2022 was prepared in coordination with planning team of MEPCO. The 220 kV Layyah grid station was not required by the year 2025-26. • The requirement of the said 220 kV grid station shall be studied in the next iteration of TSEP and MEPCO planning team has also be taken on board in this regard.

REPLY TO COMMENTS OF DISCOs

HESCO

Sr #	Query/Suggestion	NTDC Response
1	Proposal for upgradation of upcoming 220 kV Mirpur Khas to 500 kV Level	• In the time horizon of NTDC Investment Plan, the said upgradation of Mirpur Khas to 500 kV level was not required in view of load demand of the region. • TSEP 2022 was prepared in coordination with planning team of HESCO. The upgradation of 220 kV Mirpur Khas to 500 kV level was not required by the year 2025-26 in view of the load demand of the region. • The requirement of the said upgradation shall be studied in the next iteration of TSEP and HESCO planning team has been taken on board in this regard.
2	Provision of 2nd source to 220/132kV Hala Road grid station	The provision of 2nd source of supply to 220/132kV Hala Road grid station is a part of PC-1 of 220 kV Mirpur Khas substation and is included in the NTDC Investment Plan. The same was also included in the TSEP 2022.

REPLY TO COMMENTS OF DISCOs

SEPCO

Sr #	Query/Suggestion	NTDC Response
1	Rehabilitation of 220/132 kV Transformer at TPS Guddu	• The spare 160 MVA, 220/132 kV transformer from Multan has already been planned to be installed at TPS Guddu to resolve the issue without minimum additional investment. • In future, it is further planned to augment the 2x160 MVA transformers at Guddu with 2x250 MVA transformers along with extension of 3rd 250 MVA transformer at Guddu as per increase in load demand of the region.

REPLY TO COMMENTS OF PROVINCIAL GOVT. ENERGY DEPTS

Government of Balochistan Energy & Power Department

Sr. #	Query/Suggestion	NTDC Response
1	Construction of 220 kV Transmission Line from Nokundi to Mastung and 220kV grid Station at Nokundi for evacuation of wind energy projects	• NTDC investment plan includes power evacuation of all the projects in its network that are envisaged for the years up to 2025-26 and are included in IGCEP. • There is huge potential of VRE in the Balochistan as identified in "RE Locational Study Report" prepared by World Bank. • As per IGCEP 2022, the wind energy projects of total 500 MW have been considered in the study models of TSEP 2022 Phase-1, their interconnections are at 132 kV level as proposed in RE Locational Study. • As per IGCEP 2022, there is about 3500 MW wind potential in the years 2027-28 and 2028-29. The evacuation of wind potential in Balochistan and Sindh provinces would be studied in the next iteration of TSEP.

REPLY TO COMMENTS OF PROVINCIAL GOVT. ENERGY DEPTS

Government of Balochistan Energy & Power Department

Sr. #	Query/Suggestion	NTDC Response
2	Augmentation of 132kV Grid and Transmission network of QESCO for the stable and secure operation of the grid	• In order to improve the power supply position and to achieve stable/secure operation of the grid in Balochistan, QESCO is responsible for planning, operation & maintenance of 132 kV network and NTDC for 220 kV & higher voltage network. • The planning teams of NTDC and QESCO have been working in a coordinated manner in past and present to prepare transmission expansion plans including reactive power compensation within their own jurisdictions. The problem is delay in the implementation of the already proposed projects. Both NTDC and QESCO have also worked together for TSEP 2022 Preparation and would expedite the completion of the planned projects within their jurisdictions.
3	Interconnection of Makran Division	Makran/Gwadar network is presently importing power from Iran through 132 kV lines in the range of 100-150 MW. The plan for additional power supply options for Makran/Gwadar network in short to medium and long term scenarios is given in the attached presentation.

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Sr. #	Query/Suggestion	NTDC Response
4	Conversion of agriculture tube wells on solar system	• Feasibility study of the said project has already been completed. • The PC-1 and execution of this project is the responsibility of Energy department, Government of Balochistan which can provide its latest status. • QESCO and AEDB may provide support in this regard. • This project is not in the mandate of NTDC.
5	Unelectrified villages of province to be converted on off-grid system	NTDC agrees with these suggestions and would extend its technical support to QESCO wherever needed.