



ENERGY AND POWER DEPARTMENT
GOVERNMENT OF KHYBER PAKHTUNKHWA
PERFORMANCE REPORT (2018-2020)

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ACRONYMS

ADB	Asian Development Bank
AIP	Accelerated Implementation Program
BHU	Basic Health Unit
CPPA-G	Central Power Purchasing Agency
E&P	Energy and Power Department
EPA	Energy Purchase Agreement
FCDO	UK Foreign Commonwealth and Development Office
GHPL	Government Holdings Private Limited
GoKP	Government of Khyber Pakhtunkhwa
GoPb	Government of the Punjab
HPP	Hydropower Project
IFC	International Finance Corporation
IGCEP	Indicative Generation Capacity Expansion Plan
KADP	Kohat Area Development Program
KHNP	Korea Hyrdo and Nuclear Power Company
KP	Khyber Pakhtunkhwa
KPOGCL	Khyber Pakhtunkhwa Oil and Gas Company Limited
KPTGC	Khyber Pakhtunkhwa Transmission and Grid Company
LPG	Liquified Petroleum Gas
MMCFD	Million Metric Cubic Feet Per Day
NHP	Net Hydel Profits
NEPRA	National Electric Power Regulatory Authority
NTDC	National Transmission and Dispatch Company
OGDCL	Oil and Gas Development Company Limited
PEDO	Pakhtunkhwa Energy Development Organization
PESCO	Peshawar Electric Supply Company
PPP	Public Private Partnership
SEED	Sustainable Energy and Economic Development
TESCO	Tribal Areas Electricity Supply Company

MANDATE OF ENERGY & POWER DEPARTMENT

The Energy & Power Department established in October, 2008, under the Rules of Business, 1985, is, inter-alia, mandated to perform functions in light of the provisions of Articles 154, 157, 158, 161 & 172 (3) of the Constitution.

ATTACHED ORGANIZATIONS OF ENERGY & POWER DEPARTMENT

1. PAKHTUNKHWA ENERGY DEVELOPMENT ORGANIZATION (PEDO)

PEDO is an autonomous body of the Government of Khyber Pakhtunkhwa and is governed by PEDO Act, 2020. It is responsible for development of energy sector in the province. Seven hydro power projects with a total power generation of 161.2 MW have been commissioned so far.

2. KHYBER PAKHTUNKHWA OIL & GAS COMPANY LIMITED (KPOGCL)

Khyber Pakhtunkhwa Oil & Gas Company Limited (KPOGCL) was established by GoKP under the Companies Act in 2013. KPOGCL is a member of the Pakistan Petroleum Exploration and Production Companies Association.

3. ELECTRIC INSPECTORATE

The Electric Inspectorate handles electricity complaints redressal, inspection of installations and dispute resolution between electricity consumers and distribution companies. It is mandated under the following Acts and Rules:-

- Electricity Act, 1910
- Electricity Rules, 1937
- NEPRA Act, 1997 (Section 38)
- West Pakistan Finance Act, 1964
- Electricity Duty Rules, 1964
- Cinematograph Apparatus Rules, 1962

The following three additional entities have been created during the last two years.

(I). TRIBAL AREAS ELECTRICITY SUPPLY COMPANY (TESCO)

In the wake of merger of erstwhile FATA with KP, the developmental schemes of TESCO were entrusted to E&P department in 2018 for administrative purposes. The operational mandate of the Company rests with Power Division at federal level. The E&P Department is mandated to support the merged areas on a trajectory of rapid economic growth and social development, address issues of load shedding and provide relief to the citizens of merged districts, provide adequate facilities for reliable and stable supply of electric power to domestic, commercial, industrial and agricultural customers.

(II). KP TRANSMISSION & GRID COMPANY

A landmark achievement by the current GoKP in its mission to reform the energy sector has been the establishment of the first ever KP Transmission and Grid Company (KPTGC). It will facilitate transmission and distribution of cheap electricity to industrial sector of the province and will resolve issues of power evacuation which will not only strengthen the province's economic situation but also promote industrialization and employment in the province.

(III). LPG MARKETING DEPARTMENT

In accordance with the Prime Minister's vision of "*Clean & Green Pakistan*", KPOGCL established an LPG Marketing Department with the prime objective of providing LPG to Northern & Merged Districts of KPK and to maximise the outreach of LPG for domestic and commercial use.

STRATEGIC RE-POSITIONING OF KP ENERGY SECTOR

Nature has gifted Khyber Pakhtunkhwa (KP) with huge natural resources of hydropower, oil & gas and minerals. However, these natural resources have remained largely untapped. Out of the identified 30,000 MW of hydropower potential, 6,000 MW (33000 GWH having generation cost Rs.63 Billion) have been developed so far and approximately 10,000 MW are at different stages of implementation amounting to Rs.100 Billion revenue per annum approximately.

Similarly, out of the 27 oil and gas exploration blocks, only 4 are currently producing about 45,000 BPD of crude oil (50% of national production) worth Rs. 131 Billion per annum, 490 MMCFD of gas (12% of national production) having an estimated monetary value of Rs. 147 Billion per annum and 850 TPD of LPG (40% of national production) amounting to Rs. 19 Billion per annum.

The Afghan War and the post 9/11 situation of four decades has seriously affected the entire economic and cultural complexion of the province. In addition, KP has not been able to realize its full economic potential, owing to its locational disadvantage, estimated to be 16% as compared to other provinces. The Government of Khyber Pakhtunkhwa (GoKP) is determined to offset this locational disadvantage by expeditious development of energy resources and providing cheap electricity and gas to its industrial sector.

A number of initiatives taken by E&P Department have been centered around strategically repositioning the energy sector to achieve the following three core objectives:

- Revenue generation
- Revival of the economy
- Creation of employment opportunities

To that end, the GoKP has undertaken the following key initiatives in the last two years to achieve the above three core objectives:

1. Institutional and Policy Reforms
2. Safeguarding Provincial Rights
3. Towards Commercial and Financial Sustainability
4. Mainstreaming of Merged Areas
5. Oil & Gas Sector

I. INSTITUTIONAL AND POLICY REFORMS

The GoKP is focusing on strengthening the Energy & Power Department as an engine of economic growth for the province and restructuring the attached organizations. The following strategic initiatives have been undertaken in the last two years:

I.1 Strengthening of E&P Department

In wake of the 18th Constitutional Amendment, provincial governments have become significantly more empowered, venturing into new areas that previously were the exclusive domain of the federal government. This requires greater coordination amongst different ministries and government institutions. The expansion in the scope of activities of E&P Department necessitated the support of additional human resources to meet the demands placed on it. This was achieved by initiating a Capacity Building Program targeted at creation of new posts, such as a Special Secretary, two Additional Secretaries, two Deputy Secretaries and three Section Officers with associated Job Descriptions and Key Performance Indicators. Additionally, the hiring process of four MP-I Scale positions of Technical Advisors Power, Solar, Legal and Oil & Gas Expert, has been initiated to provide expert advice to the provincial government in this highly complex sector which was missing so far.

The E&P Department has introduced a dedicated Citizen Complaint Redressal Cell that addresses citizen complaints and tracks progress through the Pakistan Citizens Portal. A File Tracking System has been created to keep track of the progress of files across a number of metrics on fast track basis. A Task Management System has been put in place with the purpose of keeping track of the status of each task mandated to the E&P Department and gauge the quality as well as efficiency of disposal against each task.

I.2 Restructuring of Pakhtunkhwa Energy Development Organization

The GoKP decided on restructuring Pakhtunkhwa Energy Development Organization (PEDO) keeping in mind the ever increasing significance of energy sector in today's fast changing world. PEDO Act 2020 was legislated enabling PEDO to respond to the administrative and financial demands placed on the organization. The Act ensured a shift on reliance from government funding towards commercial mobilization of capital ensuing sustainable operations.

An experienced and professional CEO has been appointed through a competitive process from the open market who has enabled PEDO to achieve its goals on fast track basis. Moreover, a new organogram for PEDO has been approved which provides for additional technical experts, particularly in the areas of Contract Management, Procurements and Monitoring & Evaluation, with the objective to equip PEDO in efficient implementation of its expanded portfolio. The required Appointment, Promotion and Transfer Rules for the newly created positions have also been notified.

PEDO has also moved towards PPP model in order to take benefit of private capital, technical expertise, avoid time & cost overrun, provide comfort to private equity and share in profits.



Peshawar: Chief Minister Khyber Pakhtunkhwa Mahmood Khan chairing a meeting of the Policy Board of PEDO.

I.3 Establishment of KP Transmission & Grid Company

The Provincial Cabinet approved the proposal for establishment of KP T&G Company with authorized capital of Rs.100 Million. The Cabinet also approved a committee headed by Additional Chief Secretary, Secretary Energy & Power and Secretary Finance Department as members to review the progress of the company on quarterly basis. The Company has been registered with SECP and the requisite Generation License is under process with NEPRA. The Company will assist in the transmission and distribution of cheap electricity to the industrial sector of the province. An independent Board of Directors of the company has been constituted and the process for hiring a permanent CEO from the open market has been initiated.

1.4 Re-Structuring of KP Oil and Gas Company

In line with international best practices, the GoKP has hired a professional CEO and re-constituted Board of Directors comprising experienced professionals to steer KPOGCL towards success and profitability. In a strategic shift, KPOGCL has steered away from block operatorship to investing in Joint Ventures with reputed exploration & production companies in order to reduce its financial exposure, mitigate risk, benefit from the expertise of market leaders and achieve company's targets.



1.5 LPG Marketing Department

In accordance with the Prime Minister's vision of "Clean & Green Pakistan", KPOGCL established an LPG Marketing Department with the prime objective of providing LPG to Northern & Merged Districts of KPK and maximise the outreach of LPG for domestic use. This department, once fully operational, is expected to directly benefit around 32,000 families with increased availability of LPG, control deforestation, promote tourism and create direct & indirect employment.

1.6 Increasing Efficiency of Electric Inspectorate

The Inspectorate has been restructured during the last two years for efficient delivery of services by expanding its outreach for the general public. This includes establishment of four Regional Offices in Districts Nowshera, Swat, Abbottabad and Bannu. Moreover, vast publicity in print and social media has been launched for public awareness. The Annual Dispute Resolution Factor of Electric Inspectorate has been 66.21% as against that of NEPRA which is 62.8%.

The Inspectorate carried out a total of 4,220 inspections during 2019-20 while 1,379 inspections have been performed during the 1st Quarter of 2020-21. The revenue earned in terms of inspection of utilities, electricity duty, license fees etc. for the year 2019-20 was Rs. 1,949 Million.

2. SAFEGAURDING PROVINCIAL RIGHTS

The 18th Constitutional Amendment has given greater autonomy to the provinces to run their financial and other affairs. Cognizant of the provisions of Articles 153 & 154 (pertaining to the Council of Common Interests), Article 157 (Construction of hydro power stations), Article 158 (Precedence in Utilization of Natural Gas), Article 161(1) (Net proceeds of Federal excise duty on crude oil), Article 161(2) (Net Hydel Profit) and Article 172 (Ownerless Properties) of the Constitution of Pakistan, GoKP has launched a historic and concerted effort to safeguard the provincial rights and all necessary steps are being taken in this regard. Important steps taken during the last two years are as under.

2.1 Net Hydel Profits

Net Hydel Profit (NHP) is payable to the provinces under Article 161(2) of the Constitution. The following four major events contributed to the cause of Net Hydel Profit:

1. Incorporation of Article 161(2) in the Constitution of 1973
2. Approval of AGN Kazi formula for calculation of NHP by CCI in 1991.
3. Achievement of Mr. Pervaiz Khattak, Ex CM for uncapping of NHP of Rs. 6 Billion / annum to Rs. 18.7 Billion / annum with 5% indexation for financial year 2015-16.
4. Success of Chief Minister KP, Mr. Mahmood Khan in convincing CCI on a figure of Rs. 128 Billion for the FY 2016-17 as per AGN Kazi formula.

The Council of Common Interests constituted a committee to deliberate upon the issue of determination of Net Hydel Profits in light of its decisions on the subject. The committee submitted its recommendations regarding Net Hydel Profits payable to the KP province for the FY 2016-17, as per AGN Kazi Formula amounting to Rs. 128 billion which was accepted by the CCI.

The CCI in its meeting held on 23-12-2019 decided that its previous decisions on the matter would remain intact. The CCI further decided to constitute a Committee of technical and financial experts to propose an out of the box solution for payment of NHP to entitled provinces. GoKP has nominated two members on the Committee Further the Deputy Chairman Planning Commission (DCPC), in his report presented during the CCI meeting held on 23-12-2019, inter-alia, mentioned that several decisions in the matter taken during the last three decades by Constitutional Forums such as NFC, Federal Cabinet, CCI and Supreme Court of Pakistan regarding NHP are settled and cannot be re-opened. The findings of DCPC also mention that Article 154(7) of the Constitution provides that remedy of Joint Session of the Parliament in case any party is dissatisfied with the decision of CCI. More importantly, the Technical Sub-Committee confirmed that GoKP and GoPb have calculated NHP as per KCM. This is a spectacular achievement of the GoKP.

GoKP, on the same analogy, calculated the amount for FY 2017-18 at Rs. 137 billion, for FY 2018-19 at Rs. 157 billion & for FY 2019-20 at Rs. 219 billion.

2.2 Provincial Representation on Federal Entities

Under the provisions of the Constitution of Pakistan, all subjects falling under Part - II of the Federal Legislative List, fall under the domain of the CCI including electricity and mineral oil. GoKP, like other provinces, has a right of representation on the Board of Directors of the federal entities and should have a say in the decision-making in matters pertaining to provincial rights. To that end, the Energy & Power Department took up this crucial issue at the federal level for suitable representation on the Board of Directors of important federal entities such as NTDC, CPPA-G, PESCO, AEDB, OGDCL, PPL, SNGPL, PSO, PPIB and GHPL etc. So far, the GoKP has managed to get representation on the boards of SNGPL, GHPL and OGDCL while efforts are underway to get access on the remaining Boards.

2.3 Signing of Pending Energy Purchase Agreements (EPAs)

Signing of the EPAs had been a stumbling block in selling out the power generated by PEDO hydro power projects. Energy & Power Department vigorously pursued and sensitized the issue at Federal level. With the kind intervention of the Honorable Prime Minister of Pakistan, this long-standing issue, which was pending for resolution since 2010, was resolved and the EPAs were signed with CPPA-G in May 2019 for 18 MW Pehur, 17 MW Ranolia and 36.6 MW Daral Khwar HPPs. This will result in generating a combined revenue of Rs.2.1 billion, annually.

As a gesture of good will to support the efforts of the federal government to reduce payment of capacity charges in the system and to set a precedent for other power generators to follow, PEDO voluntarily shifted from a “take or pay” model to “take and pay” model. This is the first time that such a development took place in the history of power sector in the country. In addition, for the first time ever in Pakistan, these EPAs contain an “exit” and a “re-entry” clause.

2.4 Reflection of PEDO Projects in Indicative Generation Capacity Expansion Plan (IGCEP, 2047)

The IGCEP 2047 prepared by NTDC forecasting future energy requirements of Pakistan. It envisages an energy mix for the next 27 years which impacts major private and public sector investment decisions across generation, transmission and distribution. The document was first published in Feb 2019 wherein most of the KP projects were allocated for completion after 2040 thereby nullifying efforts of the Provincial Government to harness its clean and green hydropower potential. The issue was raised by Energy & Power Department at the Federal Level with the Power Division and NEPRA.

A hearing on this issue was held in NEPRA in July, 2020 which was personally attended by Mr. Mahmood Khan, the Honorable Chief Minister KP wherein the reservations of GoKP were conveyed in an emphatic manner. As a result, the honorable Prime Minister issued directives to NEPRA & NTDC to revise IGCEP by incorporating all the energy projects of KP in earlier time frame.

3. TOWARDS COMMERCIALIZATION & FINANCIAL SUSTAINABILITY

Following are some of the important steps taken by E&P Department towards financial sustainability of the energy sector in the province:

3.1 Shifting to Commercial Capital Market

Realizing the scarcity of government financial resources, E&P Department has initiated a process of a strategic shift towards arranging commercial funding from the capital market for optimum utilization of its hydro power potential instead of financing these projects from scarce public funds. The rationale behind this policy is to move towards commercial and financial sustainability of PEDO and the province. Moreover, strong partnerships with multi-lateral agencies and foreign companies are also being established for financial and technical support. The E&P Department and PEDO are also working on other feasible options for developing a financial model to raise funds for its future projects.

3.2 First-Ever Auction and Wheeling of Power through Open Competition

Auction and Wheeling of power model for 18 MW Pehur hydro-electric station is another first ever successful model in history of Pakistan's power sector. It has practically commenced on 05-06-2020 to supply cheap electricity at a strike price of Rs. 7.5/kwh, against the average national industrial tariff of Rs.15/kwh, to 5 industrial consumers of Khyber Pakhtunkhwa. This historic step will offset the locational disadvantage faced by the industrial sector of KP and will open a new horizon for strengthening the socio-economic development of the province. Apart from making competitive environment for industrial growth, this model will contribute Rs. 305.38 Million / annum to the provincial exchequer which is Rs.146.57 Million / annum more as compared to sale of electricity to the national grid.



With the successful launch of Phase-I of wheeling model, the GoKP has initiated Phase-II which entails supply of 148 MW (887GWH) from Machai, Malakand-III, Ranolia, Daral Khwar, Karora and Jabori Hydel Power projects to the industrial consumers of KP. Till date, over 66 industries have applied for availing the facility in Phase-II.



3.3 Public Private Partnership

3.3.1 PPP for 496 MW Lower Spat Gah HPP

The concept of PPP is not new; however, it has never been adopted in hydropower projects in Pakistan. PEDO has taken the lead, venturing into executing for the first time ever by initiating the 496 MW Lower Spat Gah Hydropower Project in District Kohistan in PPP mode with Korea Hydro and Nuclear Power Company (KHNP).

Both parties will form a Special Purpose Vehicle (SPV). The aim is to diversify the hydropower potential of the province, develop projects with no financing from the provincial exchequer, benefit from the technical and financial expertise of leading international companies, avoid time & cost over-run while sharing in profits generated from the project. The project is expected to generate revenue of Rs. 7.4 billion/annum.

3.3.2 Batakundi HPP- 96 MW Partnering with IFC

GoKP has engaged the International Finance Corporation (IFC) to provide transaction advisory services to PEDO for arrangement of necessary financing for development of hydropower projects in PPP mode. IFC is a sister organization of the World Bank Group and is specialized in advising governments of emerging countries in structuring and implementing Bankable PPP transactions. IFC will also carry out technical, legal and environmental due diligence for 96 MW Batakundi HPP.

3.4 Asian Development Bank

3.4.1 Balakot HPP 300 MW

In order to optimally exploit the potential of hydropower in the province, GoKP with collaboration of ADB is at advanced stage of implementation of 300 MW Balakot Hydropower Project. The project cost is approximately Rs.88 Billion. It is expected that the project will create more than 1,000 direct jobs with a potential to generate about Rs.13 Billion revenue per annum for the province.

3.4.2 Mini Micro Hydro Power Project

GoKP initiated “Access to Clean Energy Investment Program” with the financial assistance of ADB to provide environment friendly electricity to the local community in far flung areas across the province in order to improve the livelihood of the people, create employment opportunities and discourage deforestation. The total cost of the project is Rs.18 billion. Under the Program, a total of 1,028 mini/micro hydropower projects are being constructed. These power plants are to be constructed in the northern districts of KP in two phases as below:



- Phase I of the project will be completed in current financial year, wherein out of a total of 332 mini/micro hydropower plants of 32 MW capacity, so far 311 mini micro plants have been completed while the rest are under construction and will be completed by June, 2021.
- Phase II has already been initiated, and is expected to be completed by 2023, which will result in the construction of 672 mini/micro hydropower plants with a total capacity of 53 MW.



Chief Minister Khyber Pakhtunkhwa Mahmood Khan inaugurating Five Mini Hydro Power Projects at Kaghan District Mansehra

3.4.3 Solarization of 8000 Schools & 187 BHUs

Under the Access to Clean Energy Project (ACEP), GoKP has launched another project of Solarization of 8000 Schools and 187 BHUs throughout the province with the financial assistance of ADB. The total cost of the Project is Rs.4347 million with a total capacity of 12 MW.



Peeshawar: Solarization of Schools, mosques & BHUs projects, a signing ceremony for award of contracts held on Wednesday. Secretary Power Zubair Khan and CEO PEDO Naasem Khan also present in the function. dated 03.6.2020

3.5 World Bank Funded Hydropower Projects - 245 MW

PEDO is executing two hydropower projects in District Swat, namely 88 MW Gabral Kalam and 157 MW Madyan HPPs with the financial assistance of World Bank with a total cost of Rs. 142 Billion. The World Bank will provide US \$ 450 million while the share of GoKP will be US \$ 151 million. Additionally, funding up to the tune of US \$ 185 million will be arranged through commercial financing to be raised with the assistance of the World Bank. Revenue of approximately Rs. 10 Billion/annum will be generated after completion of these projects. Feasibility studies will also be conducted for 10 Hydro Power sties.

The project includes a first ever hybrid model in the country, wherein approximately 20 MW of solar power generation will be installed in the available unutilized space on project sites. In addition to revenue and employment generation, this project will also help in capacity building of PEDO through foreign reputed consultant.



3.6 Sustainable Energy and Economic Development program- (SEED)

The GoKP has engaged with UK Foreign Commonwealth and Development Office (FCDO) through Sustainable Energy and Economic Development (SEED) program which aims to support provincial economic development and sustainable energy in Pakistan. Technical assistance to E&P Department will be provided in the form of innovative financial solutions, development of KP Energy Sector Business Plan, support for Phase-II of auction & wheeling arrangement, devising a funding strategy for investment mobilization and assistance in resolving tariff issues with NEPRA to enhance PEDO revenues. SEED will also be providing transaction advisory services to IPP projects in the public sector and PPP mode to reach financial close.

3.7 Solarization in the Province

In order to create a sustainable energy-rich future, GoKP has launched several solarization projects. In this regard, PEDO has successfully converted Civil Secretariat, Chief Minister's Secretariat, Chief Minister's House to solar energy through **net metering** mechanism. Moreover 5,700 households and 300 masajid have also been solarized.



The aggregate power generation capacity of the above solarization projects is 2.85 MW with accumulative savings of 5.6 million energy units/annum with approximate monetary savings of about Rs.88 million/annum. The details are presented in the table: -

S #	Project Name	Power Capacity (MW)	Energy Generated / annum (MWH)	Number of Beneficiaries	Units Savings / annum	Monitory Savings
1	100 Villages Through Solar / Alternate Energy Phase I	0.87 MW (200 W each system)	1566 MWH	2900 House holds	1.566 M units / yr	Rs.25 M
2	Electrification of Un Electrified Villages Solar / Alternate Energy Phase II	0.55 MW (200 W each system)	960 MWH	2750 house holds	0.990 M units / yr	Rs. 15 M
		0.3 MW (300 W each System)	540 MWH	1000 House holds	0.54 M units / yr	Rs. 8.7 M
3.	Solarization of Civil Secretariat	0.49 MW	882 MWH	Offices, Conference rooms, committee rooms	0.88 M units / yr	Rs. 14 M
4	Solarization of Chief Minister's Secretariat / Chief Minisster's House 376 KW	0.376 MW	677 MWH	Offices, Meeting rooms, Masjid	0.677 M units / yr	Rs. 11 M
5.	Solar Electrification of 300 Masajid / Worship Places of Non-Muslims fin merged Districts of Khyber Pakhtunkhwa	0.531 MW (1770 W each system)	956 MWH	300 Masajid	0.955 M units / yr	Rs 15 m
	Total	2.85 MW	5,581 MWH	6650 House Holds & 300 Masajid in Merged Districts	5.6 M units / yr	Rs 88 Million (Approx.)

Additionally, a portfolio of solarization of 4,000 masjid, 8,000 school and 187 BHUs facilities throughout the province is under implementation. Conversion of 4,000 masjid on solar energy will result in saving of 12.8 million units with savings of Rs.203 million/annum. Similarly, solarization of 8,000 schools will provide clean & uninterrupted power to 100,000 students in the un-electrified or poorly electrified far flung areas. The project will also lead to savings of Rs.400 million/annum approximately and creation of 320 jobs.

4 MAINSTREAMING OF MERGED DISTRICTS

In 2018, the Government of Pakistan decided to merge the Ex-FATA with Khyber Pakhtunkhwa. The GoKP has adopted an ambitious policy to bring the merged districts at par with settled areas. This bold strategy will set merged areas on a trajectory of rapid economic growth and social development. E&P department has initiated the following developmental projects in the newly Merged Districts:

4.1 TESCO Schemes

TESCO in co-ordination with E&P Department has approved eighteen (18) projects of upgradation and installation of feeders, rehabilitation of grid stations and installation of transformers in the Industrial Zones across the newly merged districts to curb and minimize the issues faced by the business community with a total cost of Rs. 6.8 Billion. The E&P Department through TESCO has been working to address the problem of load shedding.

With the completion of these projects, the issues of overloading of 11 kv lines, 132 kv T/Lines and Grid stations will be reduced and additional 18% population of NMDs will be electrified which will bring overall socio economic uplift besides creation of new jobs. Industrial and commercial activities in NMDs will increase manifold with the completion of these projects.



4.2 Chapri Charkhel HPP-10.5 MW

GoKP has initiated construction of Chapri Charkhel HPP with a cost of Rs.4.378 billion having a capacity of 10.5 MW. The project will generate 73.56 GHW of energy and a revenue of Rs.838.41 million annually. The project is located in District Kuram. The selection of consultant and land acquisition is at advanced stages. The project is expected to achieve its COD by end of 2023.

4.3 Mini Micro HPPs

GoKP has started several Mini Micro hydropower projects for the local community of the merged districts. In this regard, schemes worth Rs.838 million with approximate capacity of 3000 KW are at various stages of implementation.

4.4 Solarization Projects

E&P has also carried out extensive solarization projects which includes the following:

- a. Solar electrification of 300 mosques / worship places has been completed
- b. Construction of 13 mini grids of 100 KW each in the business centers
- c. Solarization of additional 600 mosques and worship places is in the process of execution.

5. KP OIL AND GAS SECTOR

5.1 Kohat Area Development Program (Rs. 15 Billion)

Over the years, billions of rupees under the royalty share of Kohat Division have been spent in total disregard of the socio-economic needs of the area. Consequently, the desired results of improving the livelihood of the locals could not be achieved. In light of Prime Minister Directives and to ensure the optimal utilization of these funds, Energy & Power Department with the support of UNDP and FCDO proposed a five year Rs. 15 Billion, Kohat Area Development Program and after GoKP approval, has been handed over to P&D Department for implementation. The project includes construction of 8 small dams, rehabilitation of 8 existing irrigation schemes, operationalization of 39 non-functional water schemes, rehabilitation of 100 existing water schemes, solarization of 100 existing water schemes, rehabilitation of 100 Km of rural roads, provision of missing facilities for 135 Girls primary schools, provision of missing facilities for 65 Basic Health Units, poverty reduction and natural resource management.



Chief Minister Khyber Pakhtunkhwa Mahmood Khan chairing a meeting regarding Kohat Division Development Project

5.2 Accelerated Implementation Program under KPOGCL (Rs.35.5 Billion)

The Provincial Cabinet has given approval to a comprehensive investment plan worth Rs. 20.5 Billion from Accelerated Implementation Program (AIP) for the next three years. KPOGCL will be investing as Joint Venture Partner in 8 exploration blocks yielding high returns to the GoKP in Terms of royalties and dividends. Similarly, Provincial Cabinet has also approved the investment plan worth Rs. 15 Billion for the next 10 years to be funded from Oil & Gas Royalty. Accordingly, These royalty funds will be invested by KPOGCL in 12 exploration blocks of merged and settled Districts of Khyber Pakhtunkhwa as JV partner. Benefits of this program include; expected revenue of Rs. 13 Billion annually, boost in oil and gas exploration activities in the region, creating Local job opportunities for more than 2000, revival of local economy, increase corporate social Responsibility (CSR) and social welfare obligations in the Region.

5.3 Institute of Petroleum Technology, Karak (Rs.2 Billion)

GoKP is in the process of establishing a state of the art Institute of Petroleum Technology in district Karak offering diplomas / trainings in the field of drilling, petroleum and instrumentation related to oil & gas which will generate skilled workforce to be utilized in operational sites within KP as well as across Pakistan. The project was approved by PSDP with a total project cost of Rs. 2 Billion. The 250 Kanals of project land is under acquisition from the Provincial ADP.



5.4 Swap of Lakki Block with Miran shah Block

Pursuant to the award of Lakki Block to KPOGCL on 12-Sep-2018, a detailed feasibility study was carried out which revealed that Lakki Block was non-prospective. Subsequently, GoKP under the active leadership of Mr. Mahmood Khan Chief Minister and support of Prime Minister of Pakistan decided to approach the CCI for swap of Lakki Block with another prospective block. The CCI approved the proposal to swap Lakki Block with Miranshah Block in its 43rd meeting held on 11-Nov-2020 which is a first time landmark achievement in the history of oil & gas industry in Pakistan.

5.5 Gasification Schemes for Kohat Division, Peshawar & Charsadda

Despite producing surplus gas, the inhabitants of oil & gas producing districts do not have access to piped indigenous gas. This deprivation has resulted into billions of rupees' loss per annum on account of UFG losses.

As a result of vigorous efforts of the E&P Department, the Federal Government for the first time has approved 5 mega gasification schemes worth Rs. 11 Billion for Karak, Kohat, Hangu, Peshawar & Charsadda. These projects will provide gas to approximately 80,000 Households i.e. 400,000 individuals and will reduce low gas pressure issues of Peshawar & Charsadda. The projects will also aid in reducing UFG losses which will result in saving billions of rupees for the Federal Government. GoKP has agreed to provide Rs. 4.7 Billion from its own resources and has already paid its due share of Rs. 850 Million to SNGPL for early completion of the projects.

5.6 Revenue Generation for the Province

Hydel and Oil & Gas sector has contributed around Rs. 168 Billion on account of royalty on oil & gas, Net Hydel Profit, Electricity Duty and revenue from its own power generation for FY 2018-19 & 2019-20. The details are given in the table below:

Revenue Generation in 2018-19 (Rs. in Million)	
Royalty on Crude Oil	9,149.633
Royal on Natural Gas	8,984.101
Gas Development Surcharge	1,667.964
Excise Duty on Natural Gas	2,522.638
Net Profit from Hydel Power Generation	28,780.868
Arrears of Net Hydel Profit	15,000.000
Net Hydel Profit (Arrears 2015-16 & 2016-17)	11,204.000
Arrears of Net Hydel Profit 2016-17	10,293.000
Total	Rs.87.602 Billion

Revenue Generation in 2019-20 (Rs. in Million)	
Royalty on Crude Oil	13,494.1
Royal on Natural Gas	7,713.5
Gas Development Surcharge	1,693.9
Excise Duty on Natural Gas	2,705.9
Net Profit from Hydel Power Generation	21,183.0
Arrears of Net Hydel Profit	11,905.0
Net Hydel Profit (Arrears 2015-16 & 2016-17)	-
Arrears of Net Hydel Profit 2016-17	22,568.8
Total	Rs.81.298 Billion
Grand Total	Rs.168.9 Billion

Moreover, PEDO has generated revenue of Rs. 4.8 Billion from its hydro power projects in FY 2018-19 & 2019-20.

KPOGCL and OGDCL in a joint venture partnership announced Oil and Gas discovery in Dhok Hussain Well-I located in District Kohat. The well has started to inject 15 MMCFD (worth Rs. 4.5 Billion) of gas and 360 BPD (worth Rs. 1 Billion) of oil into the national pool.

5.7 Training Funds Allocated to KP

Realizing the need to develop a pool of engineers and professionals to cater to the expanding power sector portfolio PEDO has approved an Internship Policy, which will create opportunities for young engineers to get practical experience. Under this policy 50 internees will be engaged annually wherein they will be placed in the field for 6 months and in PEDO Head Office for the remaining 6 months. They will be paid a monthly stipend of Rs. 26,000/- per month.

Similarly, in the last two years, KPOGCL has provided 186 internships to young professionals for capacity building and technical know-how in oil & gas sector. KPOGCL has also approved 2 months internship program for 25 fresh University Graduates. They will also be paid a monthly stipend.

With the relentless efforts of GoKP, in March 2020 the Federal Government has issued the new guidelines according to which, the Energy and Power Department will now receive Rs. 15 million/annum on account of training funds for capacity building of its employees and local inhabitants.

CONCLUSION

It is evident from the above that KP Province is blessed with abundant hydro power generation and oil & gas potential. It is high time to tap them upto maximum for the benefit of the people of the province. Therefore, Energy & Power Department has been gearing up its policies and activities to harness these resources for which international donors are being approached for necessary financing. Private investors are also encouraged for making investment into the sector and lay the groundwork for an enabling environment so that overall economy of the province can thrive in future.



**ENERGY AND POWER DEPARTMENT
GOVERNMENT OF KHYBER PAKHTUNKHWA**