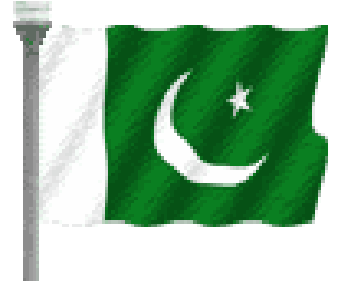




**NATIONAL ELECTRIC POWER REGULATORY AUTHORITY
ISLAMIC REPUBLIC OF PAKISTAN**



**PERFORMANCE EVALUATION REPORT
OF
OPERATIONAL POWER PLANTS
FOR
JULY - DECEMBER, 2024**





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PREFACE

The National Electric Power Regulatory Authority (NEPRA) is pleased to present its bi-annual report on the performance of electric power generation in Pakistan. This report offers a comprehensive analysis of the sector's performance over the past six months, highlighting key developments, challenges, and milestones in the electric power industry. Its aim is to provide an in-depth review of the power generation landscape, reflecting both the progress made and the challenges encountered during this period.

The report includes a series of key performance indicators that offer insights into the efficiency, reliability, and sustainability of power generation across the country. It also addresses critical challenges faced by the sector—ranging from excess generation capacity to infrastructure limitations—and outlines the strategies implemented to overcome these issues.

This report serves not only as a monitoring and assessment tool, but also as a valuable resource for policymakers, industry stakeholders, and the general public. By providing a clear and accessible overview of the state of power generation in Pakistan, it aims to foster a deeper understanding of the sector's complexities. Additionally, it is designed to support strategic planning, facilitate informed decision-making, and strengthen regulatory oversight, which is essential for driving sustainable improvements in the electric power industry.

NEPRA hopes that this bi-annual report will make a meaningful contribution to ongoing efforts aimed at enhancing the performance and resilience of Pakistan's energy infrastructure. The data presented has been sourced from relevant entities and compiled with care. However, some of the data is provisional and may be revised in future editions following further processing by the competent forums. The information and analyses contained in this report are intended solely for informational, analytical, and research purposes. NEPRA shall not be liable for any legal and commercial claims or disputes arising from regulatory observations or the data presented herein.



1. Challenges in Pakistan's Electric Power Generation Sector - Overview:

When consumers are required to pay for unutilized capacity, excessive generation capacity or low utilization of assets can lead to higher Capacity Purchase Prices (CPP), which in turn results in increased electricity costs. This imbalance between power generation capacity and the electricity demand can undermine the financial sustainability of the electric power system, making electricity more expensive for consumers.

The utilization factor of all combined thermal power plants, including nuclear power plants, during the first and second quarters of FY 2024-25 remained at 45.7% and 32.7%, respectively. In contrast, the utilization factor for renewable energy (RE) plants, including hydro, wind, solar and bagasse, stood at 54.4% and 27.6%, respectively. The lower utilization of thermal power plants was primarily attributed to lower demand and AT&C-based load shedding, while the suboptimal performance of RE plants stemmed largely from the unavailability of primary energy resources and challenges in energy evacuation, particularly for wind power plants.

Electricity demand fluctuates across seasons and times of day, making it essential to carefully plan power generation capacity. Higher plant utilization typically leads to a lower per-unit cost of CPP, while lower utilization drives the cost higher. Therefore, when planning the country's power generation capacity, it is necessary to focus on optimizing the efficient use of the planned capacity to achieve a higher utilization factor. This approach is essential to lower the per-unit CPP, improve system reliability, and ensure a more cost-effective and sustainable energy supply.

To ensure the long-term financial sustainability and reliability of the power system, a comprehensive analysis of the financial and economic implications of maintaining generation capacity to meet short-duration peak demand must be integral to the development of the Indicative Generation Capacity Expansion Plan (IGCEP). This analysis is important to determine the optimal generation capacity needed to maintain system reliability while minimizing costs. In addition, the economic impacts of the intermittency associated with renewable energy (RE) sources, including maintaining backup generation capacity, and operating power plants at part load, should be thoroughly evaluated. This evaluation will help balance the integration of renewables with the need for a reliable and cost-effective energy mix.

Furthermore, in light of the indexation mechanism, it is essential to analyze the impact of any new capacity before its induction, considering a period of at least 10 to 15 years. This analysis should be conducted in conjunction with the existing generation capacity, utilization factors, EPP (Energy Purchase Price), and CPP. A comprehensive long-term evaluation will offer a clear understanding of the financial and operational implications of the proposed power plant induction.

While RE plants typically have no fuel cost, their utilization is limited by the intermittent nature of energy sources such as variable hydrology, wind, and sunlight. This variability makes RE plants less reliable for base-load power. Conversely, thermal power plants usually have higher utilization factor but face higher fuel costs, which can reduce cost efficiency. Therefore, when adding any new power plants, efforts should focus on incorporating RE power plants with a high Capacity Utilization Factor (CUF) and thermal power plants with lower fuel costs to minimize overall financial expenses and enhance both financial and economic efficiency in the power sector. Achieving a balanced generation mix is key to optimizing costs and maintaining system stability.

The current generation mix of Pakistan's power sector, as of the end of the First and Second quarter of FY 2025, along with their respective utilization factors during this period, is as follows:

Source	Capacity in CPPA-G System*			Capacity in KE System**			Capacity in Country		
	Reference Capacity	Utilization Factor		Reference Capacity	Utilization Factor		Reference Capacity	Utilization Factor	
	MW	%		MW	%		MW	%	
	1 st & 2 nd Qtr	1 st Qtr	2 nd Qtr	1 st & 2 nd Qtr	1 st Qtr	2 nd Qtr	1 st & 2 nd Qtr	1 st Qtr	2 nd Qtr
Nuclear	3,326	78.6	70.3	-	-	-	3,326	78.6	70.3
Local Gas	2,232	62.7	53.7	1083	44.5	20.6	3,315	56.8	42.9
Thar Coal	2,436	75.7	61.7	-	-	-	2,436	75.7	61.7
Imp. Coal	4,341	31	15.3	52	95.7	65.1	4,393	31.8	15.9
RLNG	6,598	49	31.1	918	72.7	47.9	7,516	51.9	33.2
RFO	4,070	1.6	0.1	858	15.3	2.4	4,928	4.0	0.5
Total Thermal	23,003	45.7	33.7	2911	45.7	24.7	25,914	45.7	32.7
WAPDA Hydro	8,360	75.1	38.2	-	-	-	8,360	75.1	38.2
IPPs Hydro	1,934	35.2	16.8	-	-	-	1,934	35.2	16.8
PEDO Hydro	135	41.8	16.2	-	-	-	135	41.8	16.2
Neelum Jhelum	969	0	0	-	-	-	969	0.0	0.0
AJK-Jagran	30	71.6	19.7	-	-	-	30	71.6	19.7
Wind	1,845	30.4	13.7	-	-	-	1,845	30.4	13.7
Solar	664	21.4	9.2	100	18.1	20.4	764	21.0	10.7
Bagasse	336	18.3	27.4	-	-	-	336	18.3	27.4
Total RE	14,273	54.7	27.7	100	18.1	20.4	14,373	54.4	27.6

*Excluding SPPs/CPPs/NCPPs, import from Iran and net metering.

**Excluding net metering.

The table above highlights the low utilization of power plants, which, regardless of the underlying causes, contributes to high electricity costs in the country. The utilization factor shown is based on reference capacity. For RE power plants, the Capacity Utilization Factor (CUF) depends on the availability of primary energy resources such as hydrology, wind, and sunlight, which typically results in a lower CUF compared to thermal plants. In contrast, the low utilization of thermal power plants is mainly due to either plant unavailability or lower demand relative to available generation capacity. To reduce electricity tariffs and ensure a cost-effective power system, it is essential to determine optimal generation capacity and an efficient generation mix. This report provides plant-wise details of utilization factors, along with other key parameters, followed by a pictorial representation.

2. Optimizing Power Generation to Lower Electricity Tariffs:

Electric power generation is a fundamental pillar of the electricity supply chain and plays a vital role in determining electricity pricing, which directly impacts the efficiency, competitiveness, and sustainability of a country's power sector. As the cornerstone of the entire electricity system, power generation influences not only the cost of electricity but also the overall economic health,



environmental sustainability, and energy security of a nation.

In any power sector, generation costs are one of the primary factors in shaping electricity prices and, thus, are critical to the sector's sustainability. The generation costs can be broadly divided into two key components: the EPP and the CPP. These components reflect the different types of costs associated with electricity generation and collectively determine the overall price at which power is purchased from generation companies. The component of Energy Purchase Price (EPP) and Capacity Purchase Price (CPP), as outlined in the Power Generation Policy 2015, are as follows:

The CPP will comprise Fixed O&M, Return on Equity, Debt Servicing, Insurance, Cost of Working Capital, and any fixed component determined by NEPRA.

The EPP will comprise fuel cost/water use charge, variable O&M and any variable component determined by NEPRA. The EPP will be paid based on the amount of kWh (Rs./kwh) delivered at the point of delivery.

The interplay between the EPP and CPP directly affects the overall price of electricity, influencing both consumers and the broader economy. Efficient management of generation costs is essential for improving the affordability and reliability of electricity, supporting long-term investment in the power sector, and ensuring energy security. As Pakistan is moving to cleaner and more sustainable energy sources, the balance between these two cost components will become increasingly important.

Therefore, a comprehensive understanding of generation costs, along with strategies to optimize both EPP and CPP, is essential for enhancing the performance, sustainability, and resilience of the power sector.

3. Energy Purchase Price (EPP):

The EPP typically includes fuel costs and variable operational and maintenance (VO&M) expenses. However, for Thar coal power plants, the fixed costs associated with the coal mines are also factored into the EPP. While the EPP is generally incurred only when the plants are operational, in cases where fixed costs related to coal mines are included, these costs remain independent of plant operation. The EPP is also influenced by the plant's operational efficiency—when a plant operates at part load, its efficiency decreases, leading to higher EPP costs as it consumes more resources per unit of electricity generated.

The EPP for RE power plants is almost zero, as they rely on natural resources such as wind, solar, or hydro, which do not incur fuel costs. In contrast, the EPP for thermal power plants varies significantly based on the type of fuel used and their availability. For power plants that rely on domestic energy sources such as local natural gas, local Thar coal, or nuclear power, the fuel costs are relatively lower. This is due to the availability of these resources locally, reducing both transportation costs and exposure to global fuel price fluctuations.

However, in cases where thermal power plants depend on imported fuels—such as High-Speed Diesel (HSD), Residual Fuel Oil (RFO), Re-gasified Liquefied Natural Gas (RLNG), or imported coal—the fuel costs are considerably higher. These imported fuels are subject to international



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market prices, which can be volatile and often lead to increased generation costs. As a result, the EPP for these plants tends to be higher, influencing the overall cost of power generation and ultimately impacting electricity prices for consumers.

4. Energy Purchase Price Insights for 1st and 2nd Quarter of FY 2024-25:

The following table provides a comprehensive breakdown of the EPP ranges for power plants within the CPPA-G system, categorized by fuel type, during the first and second quarter of FY 2024-25. It highlights the differences in the EPP across various fuel sources, offering a clear comparison of how electricity generation costs vary depending on the type of fuel used.

Source	Energy Purchase Price Ranges (Rs./kWh)							
	July, 2024	Aug, 2024	Sep, 2024	1 st Qtr, 2024	Oct, 2024	Nov, 2024	Dec, 2024	2 nd Qtr, 2024
Nuclear	1.6-2.2	1.6-2.7	1.6-2.7	1.6-2.7	1.4-2.2	1.4-2.2	1.4-2.2	1.4-2.2
Local Gas	9.4-13.7	9.4-13.7	9.4-13.7	9.4-13.7	9.4-13.8	8.4-10.6	9.4-10.6	8.4-13.8
Thar Coal	10.7-12.0	10.7-11.9	10.9-13.1	10.7-13.1	10.7-11.8	6.9-11.3	10.7-11.8	6.9-11.8
Imp. Coal	13.6-17.0	13.6-19.6	15.0-19.7	13.6-19.7	12.8-19.6	12.8-19.6	22.4	12.8-22.4
RLNG	21.9-27.4	22.5-28.2	22.3-27.8	21.9-28.2	20.8-27.8	21.0-27.8	20.8-27.8	20.8-27.8
RFO	32.0-34.2	31.2-35.2	29.9-35.2	29.9-35.2	29.9-34.4	30.4	30.0-34.7	29.9-34.7

Sources:

1. Fuel Price Adjustment Decisions for different power plants.
2. Quarterly Indexation/Adjustment Decisions for different power plants.

The EPP for the first quarter of FY 2024-25 in the CPPA-G system (excluding import from Iran) was around Rs. 346.501 billion, accounting for approximately 42% of the total power purchase cost of almost Rs. 827.734 billion. With total generation, including from RE power plants, at 40,422 GWh during the same period, the per-unit EPP stands at Rs. 8.6/kWh.

Similarly, the EPP for the second quarter of FY 2024-25 in the CPPA-G system (excluding import from Iran) was around Rs. 228.397 billion, accounting for approximately 35% of the total power purchase cost of almost Rs. 661.484 billion. With total generation, including from RE power plants, at 25,982 GWh during the same period, the per-unit EPP stands at Rs. 8.8/kWh.

While the EPP of Rs. 8.6/kWh or Rs. 8.8/kWh is relatively reasonable, it could have been further reduced if the potential of indigenous gas-based power plants, Thar Coal Power Plants, and nuclear power plants had been fully optimized. These plants typically have lower fuel costs. However, the low utilization of Thar Coal Power Plants increases their EPP, as the fixed costs associated with the mines are also factored into their overall EPP. In the current scenario, underutilizing these plants is not favorable. The following table illustrates the average utilization of the combined capacities of nuclear, Thar Coal, and indigenous gas based power plants during the first and second quarter of FY 2024-25.

Source	First Quarter, FY 2024-25					
	Accumulative Capacity (MW)		Utilization Factor (%) w.r.t Reference			
	Installed	Reference	Jul.	Aug.	Sep.	Qtr.
Nuclear	3,620	3,326	80.3	88.5	66.6	78.6
Thar Coal	2,640	2,436	83.1	72.0	71.9	75.7
Local Gas	2,378	2,254	69.3	57.2	61.5	62.7



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Source	Second Quarter, FY 2024-25					
	Accumulative Capacity (MW)		Utilization Factor (%) w.r.t Reference			
	Installed	Installed	Oct.	Nov.	Dec.	Qtr.
Nuclear	3,620	3,326	58.3	66.9	86.2	70.3
Thar Coal	2,640	2,436	83.8	56.2	44.7	61.7
Local Gas	2,378	2,254	49.7	51.7	59.7	53.7

Unutilized energy (GWh) from wind power plants due to evacuation limitations (1 st quarter)	Jul.	Aug.	Sep.	Qtr.
	27	143	14	184
Unutilized energy (GWh) from wind power plants due to evacuation limitations (2 nd quarter)	Oct.	Nov.	Dec.	Qtr.
	4	5	80	89

While the lower utilization of the power plants listed in the table above has been detrimental to the power sector, the operation of RFO and RLNG-based power plants, due to their higher fuel prices, has also significantly worsened the EPP in Pakistan's power sector. The following table illustrates the average utilization of the combined capacities of RLNG, RFO, and Imported Coal power plants during the first and second quarter of FY 2024-25.

Source	First Quarter, 2024-25					
	Accumulative Capacity (MW)		Utilization Factor (%) w.r.t Reference			
	Installed	Reference	July	Aug.	Sep.	Qtr.
RLNG	7,144	6,510	61.1	42.9	42.9	49.0
RFO	5,725	4,079	3.4	0.2	1.3	1.6
Imported Coal	4,620	4,472	35.2	21.1	36.8	31.0

Source	Second Quarter, 2024-25					
	Accumulative Capacity (MW)		Utilization Factor (%) w.r.t Reference			
	Installed	Reference	Oct.	Nov.	Dec.	Qtr.
RLNG	7,144	6,510	40.8	18.5	34.0	31.1
RFO	5,725	4,079	0.1	0.0	0.1	0.1
Imported Coal	4,620	4,472	27.9	14.8	2.7	15.3

The challenge of excessive capacity and payments for underutilized resources remains a major concern for Pakistan's power sector. This report provides a detailed analysis of plant-wise availability and net capacity factors for each power plant during the first and second quarter of FY 2024-25. The data is presented in both tabular and graphical formats, in following sections, to offer a comprehensive and clear overview of the sector's performance.

The underutilization of indigenous fuel-based and nuclear power plants, combined with an over-reliance on RLNG, imported coal and RFO power plants, has driven up the EPP and overall power purchase costs for consumers. The use of imported fuel has also placed a substantial strain on the national exchequer due to the foreign exchange spent on importing costly fuels.

A major challenge impacting the EPP in Pakistan's power sector is the underutilization of cost-effective base-load power plants located in the southern regions. These plants, which could offer affordable energy, are not being fully utilized due to insufficient transmission capacity, preventing this energy from reaching the central and northern regions where demand is higher. Consequently,



more expensive RLNG and RFO plants in the northern regions are forced to operate, resulting in a higher EPP. NTDC must take concerted efforts to fast track the completion of constraints removal schemes to enable optimal utilization of the cheaper power available in southern region.

In addition to the factors mentioned above, several other key reasons are contributing to the increase in EPP costs. One major factor is the operation of more expensive Re-gasified Liquefied Natural Gas (RLNG) power plants, often without following the economic merit order. This is primarily due to contractual obligations for minimum RLNG off-take by power plants, as well as system stability challenges arising from transmission constraints. Furthermore, the non-operation or underutilization of LEPCL due to the lack of Thar coal supply, coupled with the operation of the Lucky Coal Power Plant on imported coal—despite being commissioned to run on local Thar coal—has also contributed to higher EPP costs.

Furthermore, the shutdown of the Neelum Jhelum power plant since 01-05-2024, the open-cycle operation of the Guddu 747 power plant since 10-07-2022 due to a damaged Steam Turbine (ST), and the loss of approximately 273 GWh of energy from wind power plants, have not only increased the EPP but also placed a significant burden on the national exchequer due to the additional foreign exchange costs.

To address this issue and unlock significant cost-saving potential, it is essential to fully utilize the generation capacity from nuclear, Thar coal, and indigenous gas power plants, while minimizing dependence on more expensive fuel-based plants such as RLNG, imported coal and RFO. Efforts should be focused on bringing the 969 MW Neelum-Jhelum hydropower plant online, while ensuring that the 747 MW Guddu power plant operates at full capacity in CCPP mode. Inefficient power plants, which continue to claim capacity payments based on their availability, wherever possible, should be phased out. It should be ensured that the energy potential of RE power plants is fully realized and seamlessly integrated into the system, without any waste. A key step in achieving these goals is the development of a constraint-free transmission network, enabling the efficient transfer of low-cost electricity generated in the south to the K-Electric, the central and northern regions.

5. Capacity Purchase Price (CPP):

The CPP covers the fixed costs associated with power plants, including fixed O&M, debt servicing, Return on Equity (RoE), Return on Equity During Construction (RoEDC), insurance, and other related expenses. These costs are fixed in nature, meaning they remain constant regardless of whether the plant is in operation. As a result, while the total CPP remains unchanged in absolute terms, the per-unit CPP fluctuates based on the plant's utilization. However, it should be noted that the fixed cost may fluctuate due to variation in KIBOR, LIBOR, Exchange Rate and other relevant factors.

It is relevant to mention that the tariff structure for existing operational RE power plants varies, including two-part tariffs, single-part tariffs, and others. However, due to the dominance of fixed costs, procurement from RE plants is categorized under a capacity tariff.

Generally, the per-unit CPP for RE plants is higher compared to thermal power plants. This is primarily due to the inherently low-capacity factor of RE plants, which results from the intermittent



nature of primary energy sources like wind, sunlight, and water. In contrast, thermal power plants typically have higher capacity factors, often exceeding 92%. When thermal plants are highly utilized, they can achieve a lower per-unit CPP because fixed costs are distributed over a larger volume of electricity generated. However, if a thermal power plant operates at a low-capacity factor, its per-unit CPP rises, as the same fixed costs are spread across fewer units of electricity.

6. Capacity Purchase Price Insights for Quarter 1 & 2 of FY 2024-25:

The following table provides a detailed breakdown of the CPP ranges for various power plants within the CPPA-G system, categorized by fuel/primary energy resource type, during the first and second quarters of FY 2024-25. It highlights the variations in CPP ranges across different power plant technologies and primary energy resources, with differences primarily driven by plant utilization factors.

Source	CPP ranges (Rs./kW/h) during 1st Quarter, 2024	CPP ranges (Rs./kW/h) during 2nd Quarter, 2024
Nuclear	6.1-16.6	6.3-16.7
Local Gas	1.7-6.6	1.7-6.6
RLNG	1.9-3.1	1.9-2.5
RFO	2.0-2.6	1.9-2.5
Imported Coal	10.1-11.7	9.4-11.8

Source: Quarterly Indexation/Adjustment Decisions for different power plants.

Source	CPP ranges (Rs./kWh) during 1st Quarter, 2024	CPP ranges (Rs./kWh) during 2nd Quarter, 2024
Thar Coal	11.6-12.2	11.3-11.8
Wind	13.0-47.9	13.1-47.1
Solar	11.4-49.0	11.2-48.3
Bagasse	8.9-12.5	8.7-9.9

Source: Quarterly Indexation/Adjustment Decisions for different power plants.

The CPP for the first quarter of FY 2024-25 in the CPPA-G system (excluding import from Iran) was around Rs. 481.233 billion, accounting for approximately 58% of the total power purchase cost of almost Rs. 827.734 billion. With total generation, including from RE power plants, at 40,422 GWh during the same period, the per-unit CPP stands at Rs. 11.9/kWh.

Similarly, the CPP for the second quarter of FY 2024-25 in the CPPA-G system (excluding import from Iran) was around Rs. 433.087 billion, accounting for approximately 65% of the total power purchase cost of almost Rs. 661.484 billion. With total generation, including from RE power plants, at 25,982 GWh during the same period, the per-unit CPP stands at Rs. 16.7/kWh.

The CPP of Rs. 11.9/kWh or Rs. 16.7/kWh is considerably high and a major contributor to the elevated electricity tariffs in Pakistan. This high per-unit CPP is primarily driven by excessive generation capacity coupled with the low utilization factor of power plants. The low utilization of RE power plants is largely due to constraints in primary energy resources, such as insufficient hydrology, wind, and sunlight. Additionally, the low utilization of thermal power plants is caused



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by factors such as lower demand, AT&C-based load shedding, and the high cost of electricity in the country.

While higher utilization of thermal power plants reduces the per-unit CPP, it must be noted that increased use of ‘costlier’ fuel-based power plants can negatively impact the EPP. Therefore, finding the right balance between these factors is critical to ensuring both cost efficiency and sustainability in the power sector.

During the first and second quarter of FY 2024-25, the utilization factor for thermal power plants was only 45.7% and 33.7% respectively, which led to a substantial rise in the per-unit CPP and, consequently, higher electricity prices across the country. Furthermore, despite their must-run status, RE plants could not be fully utilized to their available capacity, resulting in payments for Non-Project Missed Volume (NPMV). The monthly and plant-wise details of NPMV for the first and second quarter of FY 2024-25 are shown in the following table:

Details of Non-Project Missed Volume (Rupees Million)

Name of Power Plant	July. 2024	Aug. 2024	Sep. 2024	July-Sep. 2024	Oct. 2024	Nov. 2024	Dec. 2024	Oct-Dec. 2024	July-Dec. 2024
Sapphire Wind Power	17	71	7	95	9	6	117	133	228
FFC Energy	2	42	2	46	-	1	-	1	47
Gul Ahmed Wind	3	56	3	62	4	7	109	119	181
Yunus Energy	16	70	7	93	4	6	93	103	196
UEP Wind Power	16	69	7	93	10	12	206	228	321
Master Wind Energy	4	33	3	39	5	7	104	115	154
Three Gorges Second	13	137	11	161	4	7	103	115	276
Three Gorges Third	13	102	5	120	4	7	105	117	237
Zorlu Enerji Pakistan	16	70	7	93	-	1	-	1	94
Three Gorges First	30	152	14	196	-	0	-	0	196
Hydrochina Dawood	33	164	12	209	5	7	96	108	317
Sachal Energy	33	145	16	195	-	-	-	0	195
Tenaga Generasi	16	70	8	94	4	7	86	97	191
Hawa Energy	32	164	13	209	5	8	111	124	333
Metro Power	17	58	7	82	-	1	-	1	83
ACT Wind	17	69	7	93	-	0	3	3	96
Jhimpir Power	16	68	7	92	5	7	108	120	212
Foundation Wind-I	18	74	8	100	-	-	-	0	100
Liberty Wind Power-I	17	74	7	98	2	3	45	50	148
DIN Energy	34	156	14	204	2	3	46	51	255
Tricon Boston-C	11	122	10	144	5	6	107	118	262
Tricon Boston-B	21	103	11	135	5	6	101	112	247
Foundation Wind-II	17	69	7	93	-	-	6	6	99
Liberty Wind Power-II	0	0	0	0	2	3	41	46	46
Master Green Energy	39	169	16	224	2	3	46	51	275
Artistic Wind Power	31	157	30	218	2	3	44	49	267
Tricon Boston-A	6	59	5	70	5	6	95	106	176
Lakeside Energy	28	148	11	187	2	3	45	50	237
Lucky Renewables	27	151	12	190	2	3	45	50	240
NASDA Green	35	142	14	190	2	3	45	50	240
Gul Ahmed Electric	34	162	14	210	2	3	43	48	258



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Name of Power Plant	July, 2024	Aug. 2024	Sep. 2024	July-Sep. 2024	Oct. 2024	Nov. 2024	Dec. 2024	Oct.-Dec. 2024	July-Dec. 2024
ACT2 DIN Wind	33	164	14	212	2	3	40	45	257
Indus Wind Energy	64	343	30	437	2	3	44	49	486
Zephyr Power	27	140	13	180	5	3	-	9	189
Artistic Energy	24	101	31	157	-	0	8	8	165
Metro Wind Power	0	53	5	58	3	4	63	70	128
AJ Power	1	0	0	1	0	0	0	0	1
Harappa Solar	0	0	0	0	1	1	-	2	2
Atlas Solar	0	0	0	0	-	2	-	2	2
HNDS Energy	1	0	0	1	-	-	1	1	2
Helios Power	1	0	0	1	-	-	1	1	2
Meridian Energy	1	0	0	1	-	-	1	1	2
Total	764	3,927	388	5,083	105	145	2,108	2,360	7,443

Source: CPPA-G.

7. Power Sector Performance: Generation Capacity, Utilization, CPP, and EPP in 2024-25 Q1 & Q2

The underutilization of power plants, for reasons what so ever, added to the overall financial burden on the power sector. Although the lower utilization factor of RE power plants is due to constraints in the availability of primary energy resources, such as insufficient hydrology, wind and sunlight, the underutilization of thermal power plants is attributed to low demand and AT&C-based load shedding. Regardless of the reasons, the underutilization of power plants adds to the overall financial burden on the power sector. To provide a clear overview, the following table presents the reference capacity (accumulated) for various power generation technologies within the CPPA-G system (excluding import from Iran), categorized by primary energy resource type. It also includes the corresponding utilization factors and CPP amounts for the first and second quarters of FY 2024-25, broken down by primary energy resource/fuel type.

Source	Capacity in CPPA-G System						
	Reference Capacity	Utilization Factor		CPP		EPP	
	MW	%		Rs. Million		Rs. Million	
	1 st & 2 nd Qtr	1 st Qtr	2 nd Qtr	1 st Qtr	2 nd Qtr	1 st Qtr	2 nd Qtr
Nuclear	3,326	78.6	70.3	99,181	94,720	8,670	8,552
Local Gas	2,232	62.7	53.7	11,487	10,951	44,414	38,574
Thar Coal	2,436	75.7	61.7	72,129	64,334	51,550	48,450
Imported Coal	4,341	31	15.3	114,806	103,038	49,405	25,356
RLNG	6,598	49	31.1	22,054	44,375	183,892	104,922
RFO	4,070	1.6	0.1	22,391	3,821	4,893	151
Total Thermal	23,003	45.7	33.7	342,048	321,239	342,824	226,005

Source for CPP and EPP: CPPA-G.



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Source	Reference Capacity	Utilization Factor		CPP		EPP	
	MW	%		Rs. Million		Rs. Million	
	1 st & 2 nd Qtr	1 st Qtr	2 nd Qtr	1 st Qtr	2 nd Qtr	1 st Qtr	2 nd Qtr
WAPDA Hydro	8,360	75.1	38.2	44,077	47,281	1,194	688
IPPs Hydro	1,934	35.2	16.8	36,711	36,923	436	211
PEDO Hydro	135	41.8	16.2	1,440	133	383	18
Neelum Jhelum	969	0	0	0	0	0	0
AJK-Jagran	30	71.6	19.7	0	0	123	5
Wind	1,845	30.4	13.7	46,562	19,131	0	0
Solar	664	21.4	9.2	9,248	7,875	0	0
Bagasse	336	18.3	27.4	1,147	505	1,541	1,470
Total RE	14,273	54.7	27.7	139,185	111,848	3,677	2,392

Source for CPP and EPP: CPPA-G.

The underutilization of nuclear power plants, Thar coal power plants, and indigenous gas power plants is having a detrimental impact on both the EPP and the CPP. These plants, which are typically more cost-effective, are not being utilized to their full potential, resulting in a higher per-unit cost of electricity.

Conversely, the underutilization of costlier fuel-based power plants, such as RLNG, imported coal and RFO plants, adversely affects the per-unit CPP. However, increased utilization of these more expensive plants, due to their higher fuel costs, negatively impacts the EPP. This creates a complex situation where optimizing the use of these plants to reduce CPP leads to an increase in the EPP, which is not ideal for minimizing overall electricity costs. The only viable option is to channel demand by implementing various measures in coordination with all relevant stakeholders, and aligning the generation capacity in a way that ensures it is sufficient to meet the demand without adversely impacting the financial sustainability of the sector.

8. KE System: Generation Capacity, Utilization , and Energy Cost in 2024-25 Q1 & Q2

The following table presents the reference capacity (accumulated) for various power generation technologies within the KE system, categorized by primary energy resource type. It also includes the corresponding utilization factors and Energy Cost for the first and second quarters of FY 2024-25, broken down by primary energy resource/fuel type.

Source	Capacity in KE System				
	Reference Capacity	Utilization Factor		Energy Cost	
	MW	%		Rs. Million	
	1 st & 2 nd Qtr	1 st Qtr	2 nd Qtr	1 st Qtr	2 nd Qtr
Local Gas	1083	44.5	20.6	28,404	11,542
Imported Coal	52	95.7	65.1	2,066	1,417
RLNG	918	72.7	47.9	33,307	20,454
RFO	858	15.3	2.4	12,126	3,510
Total Thermal	2911	45.7	24.7	75,904	36,923
Solar	100	18.1	20.4	-	-
Total RE	100	18.1	20.4	-	-

Source for Energy Cost: KE.



9. Balancing RE Intermittency and Thermal Power Costs: The Effect on EPP

While generating electricity from natural resources like hydro, wind, and solar is highly desirable, intermittency remains a significant challenge for RE power plants. Due to resource constraints such as fluctuating hydro availability, varying wind conditions, and inconsistent sunlight, the capacity factor of RE plants is generally much lower than their installed or reference capacity. The capacity factors RE plants within the CPPA-G system for FY 2024-25 were as follows: for hydropower plants, 61.6% in the first quarter and 31% in the second quarter; for wind power plants, 30.4% in the first quarter and 13.7% in the second quarter; and for solar power plants, 21.4% in the first quarter and 9.2% in the second quarter.

The variability in generation from RE plants, combined with demand fluctuations, forces thermal power plants to operate at partial load, reducing efficiency. This decline in efficiency increases the EPP as more fuel is consumed per unit of electricity. The monthly and plant-wise part load adjustment charges for the first quarter of FY 2024-25 are shown in the following table:

Partial Load Adjustment Charges (Rupees Million)

Name of Power Plant	July, 2024	Aug. 2024	Sep. 2024	July-Sep. 2024	Oct. 2024	Nov. 2024	Dec. 2024	Oct-Dec. 2024	July-Dec. 2024
Engro Powergen Qadirpur	112	96	93	301	77	101	192	370	671
Uch-II Power	19	24	27	70	130	134	128	392	462
Foundation Power Company Daharki	19	41	30	90	44	83	100	227	317
China Power Hub Generation Company	-	-	-	-	41	-	-	41	41
Port Qasim Electric Power Company	-	-	-	-	281	389	-	670	670
Huaneng Shandong Ruyi Energy	-	-	-	-	53	5	58	116	116
Saif Power	128	35	59	222	30	-	-	30	252
Punjab Thermal Power	1,100	716	203	2,019	458	-	224	682	2701
Sapphire Electric	209	53	66	328	-	-	-	0	328
Halmore Power Generation Company	158	112	73	343	20	-	-	20	363
Orient Power Company	226	172	81	479	49	-	-	49	528
Bhikki	1,293	1,304	1,157	3,754	1,043	231	523	1,797	5551
Balloki	1,251	1,149	946	3,346	929	414	840	2,183	5529
Haveli Bahadur Shah	888	1,356	985	3229	586	900	1,117	2,603	5832
Atlas Power	23	0	0	23	-	-	-	0	23
Nishat Power	-	-	-	-	3	-	-	3	3
Attock Gen.	18	0	9	27	2	-	1	3	30
Total	5,444	5,058	3,729	14,231	3,746	2,257	3,183	9,186	23,417

Source: Monthly Energy Purchase Data submitted by CPPA-G.

In conclusion, to achieve an economically sustainable power sector, it is essential that the financial and economic impacts of adding new generation capacity are carefully considered during the planning and development stages. Simply increasing generation capacity without evaluating its



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cost-effectiveness and utilization potential can lead to inefficiencies, such as underutilized assets and higher electricity costs for consumers. A well-balanced approach that accounts for the long-term financial implications—such as CPP, EPP, and the overall stability of the grid—is important. This includes ensuring that generation capacities align with actual demand, making optimal use of available resources, and integrating flexible solutions like RE alongside more cost-efficient technologies. By carefully assessing the economic impact of each capacity addition, the power sector can avoid unnecessary financial burdens, enhance efficiency, and contribute to lower electricity tariffs for consumers.

Details of EPP, CPP and Other Supplemental Charges

Sr. No.	Plant Name	Reference Capacity	July-September, 2024					
			Net Generation	Tariff Adjusted	Utilization Factor	CPP	EPP	PLAC
THERMAL (Gas)		MW	MWh	Rs./kW/h	%	Rs. Million	Rs. Million	Rs. Million
1	Guddu	-	-	-	-	636	-	-
2	Guddu 747	721	654,206	1.94	41.1	-	7,841	-
3	Engro Powergen Qadirpur	212	212,522	1.66	45.4	1,095	2,439	301
4	Liberty Daharki Power	212	327,396	-	69.9	1,254	9,029	-
5	Uch-II Power	372	585,187	6.61	71.2	5,545	8,371	69
6	Foundation Power Company Daharki	168	296,077	2.20	79.8	1,002	2,926	90
7	Uch Power	547	1,013,370	-	83.9	1,954	13,807	-
Total		2232	3,088,758	-	62.7	11,487	44,414	461
THERMAL (Coal-Local)								
1	Thar Energy	300	404,676	12.16*	61.1	15,618	6,089	-
2	Engro Powergen Thar	603	975,329	11.56*	73.3	15,664	12,485	-
3	Thar Coal Block-1	1230	2,159,215	12.00*	79.5	32,507	26,155	-
4	ThalNova Power Thar	303	533,396	12.11*	79.7	8,339	6,822	-
Total		2436	4,072,616	-	75.7	72,129	51,550	-
THERMAL (Coal-Imported)								
1	China Power Hub Generation	1249	140,782	11.73	5.1	30,455	1,915	-
2	Lucky Electric Power Company	605	486,079	10.13	36.4	13,504	7,661	-
3	Port Qasim Electric Power	1243	1,133,050	10.49	41.3	43,163	18,239	-
4	Huaneng Shandong Ruyi Energy	1244	1,206,775	10.13	43.9	27,684	21,590	-
Total		4341	2,966,686	-	31.0	114,806	49,405	-
THERMAL (RLNG)								
1	Rousch Pak Power	395	61,633	-	7.1	2,841	1,888	-
2	Fauji Kabirwala Power	151	36,459	-	10.9	760	1,213	-
3	Saif Power	204	100,409	1.86	22.3	1,211	3,074	222
4	Punjab Thermal Power	1243	661,389	3.46	24.1	3,947	17,430	2,019
5	Sapphire Electric Company	202	138,461	1.87	31.0	1,659	4,224	328
6	Halmore Power Generation	200	178,264	2.47	40.4	1,167	5,349	344
7	Orient Power Company	203	186,928	2.29	41.7	1,179	5,673	478
8	Nandipur	500	488,274	0.82	44.2	2,379	13,858	-
9	Bhikki	1163	1,654,263	3.06	64.4	7,356	41,718	3,754
10	Balloki	1165	1,662,592	2.80	64.6	7,492	41,350	3,754
11	Haveli Bahadur Shah	1172	1,975,666	2.86	76.3	7,751	48,115	3,347
Total		6598	7,144,336	-	49.0	23,031	183,892	14,246
THERMAL (RFO)								
1	TPS M/Garh	450	-	-	-	756	-	-
2	TPS Jamshoro	300	-	-	-	205	-	-
3	Lalpir Power	350	-	-	-	2,672	-	-
4	Saba Power Company	125	-	-	-	820	-	-
5	Pak Gen Power	350	1,809	-	0.2	2,548	65	-
6	The Hub Power Company	1200	15,051	-	0.6	7,937	475	-
7	Nishat Chunian Power	196	8,054	2.00	1.9	972	275	-
8	Narowal Energy	214	9,366	2.61	2.0	1,298	322	-
9	Atlas Power	214	15,219	2.10	3.2	1,113	527	23
10	Liberty Power Tech	196	23,596	2.22	5.5	1,261	805	-
11	Nishat Power	195	28,408	1.98	6.6	935	953	-
12	Attock Gen.	156	22,727	2.07	6.6	949	739	27
13	Kohinoor Energy	124	22,716	-	8.3	614	733	-
Total		4070	146,946	-	1.6	22,081	4,893	50
NUCLEAR								
1	Chashma Nuclear-II	315	259,608	-	37.3	4,846	540	-
2	Karachi Nuclear-3	1040	1,617,236	11.20	70.4	72,428	2,524	-
3	Chashma Nuclear-IV	315	570,103	16.55	82.0	11,646	966	-
4	Karachi Nuclear-2	1040	2,022,683	10.52	88.1	6,517	2,583	-
5	Chashma Nuclear-III	315	654,939	16.63	94.2	11,710	1,127	-
6	Chashma Nuclear-I	301	649,124	6.13	97.7	5,073	931	-
Total		3326	5,773,693	-	78.6	99,186	8,670	-

Note:

- The Part Load Adjustment Charges for a few plants are yet to be finalized.
- Tariff Adjusted refers to the reference tariff that has been adjusted/revised by NEPRA for the respective quarter.
- *Tariff Adjusted of Local Coal Power Plants is in Rs./kWh.
- The data pertaining to Net Generation, EPP and PLAC has been sourced from the Monthly Energy Purchase Data submitted by CPPA-G.
- The data pertaining to CPP has been provided by CPPA-G.
- As per CPPA-G, the actual CPP for TPS Muzaffargarh, Nandipur CCPP, NPPMCL, and C1-C4 billed to DISCOs after previous adjustments is approximately Rs. 1,065 million, Rs. 2,328 million, Rs. 14,317 million, and Rs. 33,271 million, respectively.

July, 2024

Thermal

Details of EPP, CPP and Other Supplemental Charges

Sr. No.	Plant Name	Reference Capacity	July, 2024					
			Net Generation	Tariff Adjusted	Utilization Factor	CPP	EPP	PLAC
THERMAL (Gas)		MW	MWh	Rs./kW/h	%	Rs. Million	Rs. Million	Rs. Million
1	Guddu	-	-	-	-	77	-	-
2	Guddu 747	721	276,301	1.94	51.5	-	3,312	-
3	Engro Powergen Qadirpur	212	67,898	1.66	43.0	441	796	112
4	Liberty Daharki Power	212	118,987	-	75.4	418	3,248	-
5	Uch-II Power	372	221,737	6.61	80.1	1,882	3,159	19
6	Foundation Power Company Daharki	168	101,729	2.20	81.4	417	994	19
7	Uch Power	547	363,803	-	89.4	682	4,910	-
	Total	2232	1,150,455	-	69.3	3,762	16,420	150
THERMAL (Coal-Local)								
1	Thar Energy	300	190,373	12.16*	85.3	824	2,357	-
2	Engro Powergen Thar	603	383,508	11.56*	85.5	5,128	4,466	-
3	Thar Coal Block-1	1230	738,297	12.00*	80.7	10,939	8,967	-
4	ThalNova Power Thar	303	193,671	12.11*	85.9	826	2,376	-
	Total	2436	1,505,849	-	83.1	17,718	18,165	-
THERMAL (Coal-Imported)								
1	China Power Hub Generation	1249	62,362	11.73	6.7	9,623	848	-
2	Lucky Electric Power Company	605	43,383	10.13	9.6	6,216	658	-
3	Port Qasim Electric Power	1243	566,105	10.49	61.2	9,966	9,446	-
4	Huaneng Shandong Ruyi Energy	1244	465,127	10.13	50.3	9,236	7,906	-
	Total	4341	1,136,976	-	35.2	35,041	18,858	-
THERMAL (RLNG)								
1	Rousch Pak Power	395	44,350	-	15.1	947	1,352	-
2	Fauji Kabirwala Power	151	29,650	-	26.4	253	982	-
3	Saif Power	204	46,034	1.86	30.3	533	1,422	128
4	Punjab Thermal Power	1243	480,056	3.46	51.9	3,925	12,205	1,100
5	Sapphire Electric Company	202	72,685	1.87	48.4	591	2,244	209
6	Halmore Power Generation	200	85,876	2.47	57.7	419	2,540	158
7	Orient Power Company	203	91,680	2.29	60.7	461	2,745	226
8	Nandipur	500	236,514	0.82	63.6	801	6,632	-
9	Bhikki	1163	604,700	3.06	69.9	13,279	14,972	1,293
10	Balloki	1165	613,836	2.80	70.8	2,506	15,097	1,251
11	Haveli Bahadur Shah	1172	694,005	2.86	79.6	2,635	16,483	888
	Total	6598	2,999,386	-	61.1	209	76,673	5,253
THERMAL (RFO)								
1	TPS M/Garh	450	-	-	-	255	-	-
2	TPS Jamshoro	300	-	-	-	284	-	-
3	Lalpir Power	350	-	-	-	783	-	-
4	Saba Power Company	125	-	-	-	273	-	-
5	Pak Gen Power	350	1,809	-	0.7	790	65	-
6	The Hub Power Company	1200	-	-	-	2,603	-	-
7	Nishat Chunian Power	196	7,627	2.00	5.2	304	260	-
8	Narowal Energy	214	7,609	2.61	4.8	-	261	-
9	Atlas Power	214	10,883	2.10	6.8	552	380	23
10	Liberty Power Tech	196	19,674	2.22	13.5	424	672	-
11	Nishat Power	195	22,604	1.98	15.6	408	767	-
12	Attock Gen.	156	15,174	2.07	13.1	327	504	18
13	Kohinoor Energy	124	16,718	-	18.1	205	538	-
	Total	4070	102,097	-	3.4	7,208	3,447	41
NUCLEAR								
1	Chashma Nuclear-II	315	-	-	-	1,505	-	-
2	Karachi Nuclear-3	1040	761,474	11.20	98.4	6,193	1,188	-
3	Chashma Nuclear-IV	315	124,525	16.55	53.1	3,869	211	-
4	Karachi Nuclear-2	1040	650,908	10.52	84.1	22,331	832	-
5	Chashma Nuclear-III	315	229,678	16.63	98.0	3,989	395	-
6	Chashma Nuclear-I	301	221,131	6.13	98.7	1,733	317	-
	Total	3326	1,987,716	-	80.3	5,041	2,943	-

Note:

1. The Part Load Adjustment Charges for a few plants are yet to be finalized.

2. Tariff Adjusted refers to the reference tariff that has been adjusted/revised by NEPRA for the respective quarter.

*Tariff Adjusted of Local Coal Power Plants is in Rs./kWh.

3. The data pertaining to Net Generation, EPP and PLAC has been sourced from the Monthly Energy Purchase Data submitted by CPPA-G.

4. The data pertaining to CPP has been provided by CPPA-G.

August, 2024

Thermal

Details of EPP, CPP and Other Supplemental Charges

Sr. No.	Plant Name	Reference Capacity	August, 2024					
			Net Generation	Tariff Adjusted	Utilization Factor	CPP	EPP	PLAC
THERMAL (Gas)		MW	MWh	Rs./kW/h	%	Rs. Million	Rs. Million	Rs. Million
1	Guddu	-	-	-	-	-	-	-
2	Guddu 747	721	233,954	1.94	43.6	2,455	2,804	-
3	Engro Powergen Qadirpur	212	73,512	1.66	46.6	396	834	96
4	Liberty Daharki Power	212	89,414	-	56.7	418	2,586	-
5	Uch-II Power	372	159,023	6.61	57.5	1,818	2,276	24
6	Foundation Power Company Daharki	168	95,029	2.20	76.0	342	950	41
7	Uch Power	547	299,274	-	73.5	646	4,146	-
	Total	2232	950,206	-	57.2	1,165	13,596	161
THERMAL (Coal-Local)								
1	Thar Energy	300	169,277	12.16*	75.8	13,449	2,240	-
2	Engro Powergen Thar	603	350,532	11.56*	78.1	5,433	4,310	-
3	Thar Coal Block-1	1230	625,950	12.00*	68.4	10,376	8,247	-
4	ThalNova Power Thar	303	159,784	12.11*	70.9	6,128	2,186	-
	Total	2436	1,305,544	-	72.0	35,385	16,983	-
THERMAL (Coal-Imported)								
1	China Power Hub Generation	1249	-	11.73	-	10,659	-	-
2	Lucky Electric Power Company	605	216,921	10.13	48.2	4,470	3,328	-
3	Port Qasim Electric Power	1243	118,476	10.49	12.8	23,459	1,837	-
4	Huaneng Shandong Ruyi Energy	1244	345,412	10.13	37.3	9,160	5,871	-
	Total	4341	680,809	-	21.1	47,748	11,036	-
THERMAL (RLNG)								
1	Rousch Pak Power	395	1,874	-	0.6	947	59	-
2	Fauji Kabirwala Power	151	5,392	-	4.8	254	183	-
3	Saif Power	204	13,082	1.86	8.6	371	413	35
4	Punjab Thermal Power	1243	145,837	3.46	15.8	2,457	4,186	716
5	Sapphire Electric Company	202	17,799	1.87	11.8	361	551	53
6	Halmore Power Generation	200	61,166	2.47	41.1	354	1,858	112
7	Orient Power Company	203	45,970	2.29	30.4	467	1,472	172
8	Nandipur	500	142,269	0.82	38.2	802	4,105	-
9	Bhikki	1163	501,349	3.06	57.9	3,318	12,979	1,304
10	Balloki	1165	506,887	2.80	58.5	2,534	12,931	1,149
11	Haveli Bahadur Shah	1172	664,071	2.86	76.2	2,607	16,584	1,356
	Total	6598	2,105,694	-	42.9	14,471	55,322	4,898
THERMAL (RFO)								
1	TPS M/Garh	450	-	-	-	255	-	-
2	TPS Jamshoro	300	-	-	-	284	-	-
3	Lalpir Power	350	-	-	-	728	-	-
4	Saba Power Company	125	-	-	-	273	-	-
5	Pak Gen Power	350	-	-	-	728	-	-
6	The Hub Power Company	1200	-	-	-	2,604	-	-
7	Nishat Chunian Power	196	-	2.00	-	347	-	-
8	Narowal Energy	214	416	2.61	0.3	1,028	14	-
9	Atlas Power	214	-	2.10	-	341	-	-
10	Liberty Power Tech	196	2,284	2.22	1.6	426	77	-
11	Nishat Power	195	942	1.98	0.6	317	30	-
12	Attock Gen.	156	723	2.07	0.6	413	24	-
13	Kohinoor Energy	124	1,299	-	1.4	205	42	-
	Total	4070	5,663	-	0.2	7,380	188	-
NUCLEAR								
1	Chashma Nuclear-II	315	36,334	-	15.5	1,505	76	-
2	Karachi Nuclear-3	1040	762,079	11.20	98.5	20,361	1,189	-
3	Chashma Nuclear-IV	315	221,664	16.55	94.6	3,926	375	-
4	Karachi Nuclear-2	1040	731,685	10.52	94.6	4,177	934	-
5	Chashma Nuclear-III	315	223,974	16.63	95.6	3,958	385	-
6	Chashma Nuclear-I	301	214,569	6.13	95.8	1,668	308	-
	Total	3326	2,190,305	-	88.5	35,596	3,266.85	-

Note:

1. The Part Load Adjustment Charges for a few plants are yet to be finalized.

2. Tariff Adjusted refers to the reference tariff that has been adjusted/revised by NEPRA for the respective quarter.

*Tariff Adjusted of Local Coal Power Plants is in Rs./kWh.

3. The data pertaining to Net Generation, EPP and PLAC has been sourced from the Monthly Energy Purchase Data submitted by CPPA-G.

4. The data pertaining to CPP has been provided by CPPA G.

Details of EPP, CPP and Other Supplemental Charges

Sr. No.	Plant Name	Reference Capacity	September, 2024					
			Net Generation	Tariff Adjusted	Utilization Factor	CPP	EPP	PLAC
THERMAL (Gas)		MW	MWh	Rs./kW/h	%	Rs. Million	Rs. Million	Rs. Million
1	Guddu	-	-	-	-	3,168	-	-
2	Guddu 747	721	143,951	1.94	27.7		1,725	-
3	Engro Powergen Qadirpur	212	71,111	1.66	46.6	259	809	93
4	Liberty Daharki Power	212	118,996	-	78.0	418	3,195	-
5	Uch-II Power	372	204,427	6.61	76.3	1,845	2,937	27
6	Foundation Power Company Daharki	168	99,319	2.20	82.1	243	982	30
7	Uch Power	547	350,293	-	88.9	626	4,750	-
	Total	2232	988,097	-	61.5	6,559	14,398	150
THERMAL (Coal-Local)								
1	Thar Energy	300	45,026	12.16*	20.8	1,345	1,492	-
2	Engro Powergen Thar	603	241,289	11.56*	55.6	5,102	3,709	-
3	Thar Coal Block-1	1230	794,968	12.00*	89.8	11,192	8,941	-
4	ThalNova Power Thar	303	179,941	12.11*	82.5	1,385	2,260	-
	Total	2436	1,261,223	-	71.9	19,025	16,401	-
THERMAL (Coal-Imported)								
1	China Power Hub Generation	1249	78,420	11.73	8.7	10,173	1,067	-
2	Lucky Electric Power Company	605	225,776	10.13	51.8	2,818	3,676	-
3	Port Qasim Electric Power	1243	448,469	10.49	50.1	9,738	6,955	-
4	Huaneng Shandong Ruyi Energy	1244	396,236	10.13	44.2	9,288	7,813	-
	Total	4341	1,148,901	-	36.8	32,017	19,510	-
THERMAL (RLNG)								
1	Rousch Pak Power	395	15,409	-	5.4	947	477	-
2	Fauji Kabirwala Power	151	1,416	-	1.3	254	48	-
3	Saif Power	204	41,292	1.86	28.1	307	1,238	59
4	Punjab Thermal Power	1243	35,496	3.46	4.0	2,436	1,038	203
5	Sapphire Electric Company	202	47,976	1.87	33.0	707	1,429	66
6	Halmore Power Generation	200	31,222	2.47	21.7	394	952	73
7	Orient Power Company	203	49,278	2.29	33.7	251	1,456	81
8	Nandipur	500	109,491	0.82	30.4	777	3,121	-
9	Bhikki	1163	548,215	3.06	65.5	2,605	13,767	1,157
10	Balloki	1165	541,869	2.80	64.6	2,453	13,322	946
11	Haveli Bahadur Shah	1172	617,591	2.86	73.2	2,510	15,048	985
	Total	6598	2,039,256	-	42.9	8,769	51,896	3,570
THERMAL (RFO)								
1	TPS M/Garh	450	-	-	-	247	-	-
2	TPS Jamshoro	300	-	-	-	205	-	-
3	Lalpir Power	350	-	-	-	1,161	-	-
4	Saba Power Company	125	-	-	-	273	-	-
5	Pak Gen Power	350	-	-	-	1,030	-	-
6	The Hub Power Company	1200	15,051	-	1.7	2,730	475	-
7	Nishat Chunian Power	196	428	2.00	0.3	321	15	-
8	Narowal Energy	214	1,341	2.61	0.9	271	47	-
9	Atlas Power	214	4,337	2.10	2.8	221	147	-
10	Liberty Power Tech	196	1,638	2.22	1.2	412	56	-
11	Nishat Power	195	4,863	1.98	3.5	211	155	-
12	Attock Gen.	156	6,829	2.07	6.1	209	211	9
13	Kohinoor Energy	124	4,699	-	5.3	205	153	-
	Total	4070	39,185	-	1.3	7,493	1,259	9
NUCLEAR								
1	Chashma Nuclear-II	315	223,274	-	98.4	1,835	464	-
2	Karachi Nuclear-3	1040	93,683	11.20	12.5	45,874	146	-
3	Chashma Nuclear-IV	315	223,914	16.55	98.7	3,851	379	-
4	Karachi Nuclear-2	1040	640,090	10.52	85.5	11,637	818	-
5	Chashma Nuclear-III	315	201,287	16.63	88.8	3,763	346	-
6	Chashma Nuclear-I	301	213,424	6.13	98.5	1,672	306	-
	Total	3326	1,595,672	-	66.6	68,631	2,460	-

Note:

1. The Part Load Adjustment Charges for a few plants are yet to be finalized.

2. Tariff Adjusted refers to the reference tariff that has been adjusted/revised by NEPRA for the respective quarter.

*Tariff Adjusted of Local Coal Power Plants is in Rs./kWh.

3. The data pertaining to Net Generation, EPP and PLAC has been sourced from the Monthly Energy Purchase Data submitted by CPPA-G.

4. The data pertaining to CPP has been provided by CPPA-G.

Details of EPP, CPP and Other Supplemental Charges

S. No.	Plant Name	Entity	Inst. Capacity	Ref. Capacity	July-September, 2024				
					Net Generation	Tariff Adjusted	Utilization Factor	CPP	EPP
							%	Rs. Million	Rs. Million
C. HYDEL			MW	MW	MWh				
1	Gomal Zam	WAPDA	17	17	3,007	Rs. 5085/kW/M	8.0	115	3
2	Jinnah Hydel Power Station	WAPDA	96	36	25,591	Rs. 1798/kW/M	32.2	499	9
3	Chitral Hydel Power Station	WAPDA	1	1	473	Rs. 7241/kW/M	21.4	32	1
4	Renala	WAPDA	1	1	546	Rs. 5632/kW/M	24.7	24	1
5	Golen Gol	WAPDA	108	108	64,411	Rs. 3465/kW/M	27.0	2,141	96
6	Rasul Hydel Power Station	WAPDA	22	22	14,368	Rs. 1272/kW/M	29.6	123	3
7	Shadiwal Power Station	WAPDA	14	14	9,110	Rs. 1528/kW/M	29.5	88	2
8	New Bong Escape	Private	84	84	59,478	Rs.14.82*/kWh	32.1	1,587	45
9	Chichoki	WAPDA	13	13	9,614	Rs. 1451/kW/M	33.5	84	2
10	Khan Khwar Hydel Power Station	WAPDA	72	72	60,468	Rs. 2062/kW/M	38.0	673	16
11	Malakand-III	PEDO	84	81	71,201	Rs.9.32*/kWh	39.8	1,440	23
12	Gulpur	Private	100	100	92,374	Rs. 13287/kW/M	41.8	4,177	18
13	Nandipur Hydel Power Station	WAPDA	14	14	12,826	Rs. 1661/kW/M	41.5	107	3
14	Dargai	WAPDA	20	20	19,154	Rs. 1426/kW/M	43.4	134	3
15	Mangla Power Station	WAPDA	1,000	1,000	1,003,133	Rs.1017/kW/M	45.4	4,104	94
16	Allai Khwar	WAPDA	121	121	122,525	Rs.1742/kW/M	45.9	906	27
17	Warsak Hydel Power Plant	WAPDA	243	243	264,408	Rs. 1002/kW/M	49.3	1,210	29
18	Karot	Private	720	720	889,251	Rs. 8284/kW/M	55.9	29,679	316
19	Kurram Garhi	WAPDA	4	4	4,967	Rs. 3427/kW/M	56.2	54	2
20	Chashma Hydel Power Station	WAPDA	184	184	246,486	Rs. 1909/kW/M	60.7	1,330	49
21	Patrind	Private	147	147	205,493	Rs. 10094/kW/M	63.3	1,269	57
22	Duber Khwar Hydel Power Station	WAPDA	130	130	188,796	Rs. 2319/kW/M	65.8	1,388	53
23	Daral Khwar Hydro Power Station	PEDO	37	37	53,390	Rs. 8.2683/kWh	65.4	-	360
24	Ghazi Barotha	WAPDA	1,450	1,450	2,156,470	Rs. 911/kW/M	67.4	7,323	162
25	Suki Kinari	Private	884	883	255,312	Rs. 5662/kW/M	70.9	-	-
26	Jagran-I	Public	30	30	47,456	Rs. 3.6878/kWh	71.6	-	123
27	Jabban Hydel Power Station	WAPDA	22	22	40,517	Rs. 2870/kW/M	83.4	240	11
28	Tarbela	WAPDA	3,478	3,478	6,874,203	Rs. 590/kW/M	89.5	17,329	281
29	NJHPC	Public	969	969	-	Rs. 9.1184/kWh	-	-	-
30	Tarbela4th Extension Project	WAPDA	1,410	1,410	2,745,742	Rs. 978/kW/M	88.2	9,977	348
31	Ranolia	PEDO	17	17	-	Rs. 4.1678/kWh	-	-	-
	Total		11,492	11,428	15,540,768		61.6	86,033	2,136

Note:

- Tariff Adjusted refers to the tariff that is applicable for the respective quarter.
- As per CPPA-G:
 - CPP includes other payment as well.
 - The actual CPP of WAPDA HPPs billed to DISCOs for the said period after the previous quarter DN is approximately Rs. 44,077 million.
- The data pertaining to Net Generation and EPP has been sourced from the Monthly Energy Purchase Data submitted by CPPA-G, except for WAPDA's plants, whose data has been provided separately by CPPA-G.
- The data pertaining to CPP has been provided by CPPA-G.

July, 2024
Hydel

Details of EPP, CPP and Other Supplemental Charges

S. No.	Plant Name	Entity	Inst. Capacity	Ref. Capacity	July, 2024				
					Net Generation	Tariff Adjusted	Utilization Factor	CPP	EPP
C. HYDEL			MW	MW	MWh		%	Rs. Million	Rs. Million
1	Gomal Zam	WAPDA	17	17	1,083	Rs. 5085/kW/M	8.6	28	1
2	Jinnah Hydel Power Station	WAPDA	96	36	11,956	Rs. 1798/kW/M	44.6	123	3
3	Chitral Hydel Power Station	WAPDA	1	1	83	Rs. 7241/kW/M	11.1	2	0
4	Renala	WAPDA	1	1	166	Rs. 5632/kW/M	22.3	2	0
5	Golen Gol	WAPDA	108	108	5,266	Rs. 3465/kW/M	6.6	270	2
6	Rasul Hydel Power Station	WAPDA	22	22	6,390	Rs. 1272/kW/M	39.0	27	1
7	Shadiwal Power Station	WAPDA	14	14	2,919	Rs. 1528/kW/M	28.0	14	1
8	New Bong Escape	Private	84	84	19,294	Rs.14.82/kWh	30.9	1031	9
9	Chichoki	WAPDA	13	13	3,443	Rs. 1451/kW/M	35.6	15	1
10	Khan Khwar Hydel Power Station	WAPDA	72	72	21,241	Rs. 2062/kW/M	39.7	138	4
11	Malakand-III	PEDO	84	81	47,454	Rs.9.32/kWh	78.7	1174	23
12	Gulpur	Private	100	100	20,726	Rs. 13287/kW/M	27.9	2889	4
13	Nandipur Hydel Power Station	WAPDA	14	14	4,273	Rs. 1661/kW/M	41.0	16	1
14	Dargai	WAPDA	20	20	6,738	Rs. 1426/kW/M	45.3	24	1
15	Mangla Power Station	WAPDA	1,000	1,000	326,584	Rs.1017/kW/M	43.9	766	22
16	Allai Khwar	WAPDA	121	121	40,892	Rs.1742/kW/M	45.4	228	9
17	Warsak Hydel Power Plant	WAPDA	243	243	87,815	Rs. 1002/kW/M	48.6	279	9
18	Karot	Private	720	720	382,068	Rs. 8284/kW/M	71.3	25279	136
19	Kurram Garhi	WAPDA	4	4	1,579	Rs. 3427/kW/M	53.1	9	0
20	Chashma Hydel Power Station	WAPDA	184	184	89,929	Rs. 1909/kW/M	65.7	345	17
21	Patrind	Private	147	147	78,919	Rs. 10094/kW/M	72.2	1502	32
22	Duber Khwar Hydel Power Station	WAPDA	130	130	77,053	Rs. 2319/kW/M	79.7	315	17
23	Daral Khwar Hydro Power Station	PEDO	37	37	26,720	Rs. 8.2683/kWh	97.1	-	221
24	Ghazi Barotha	WAPDA	1,450	1,450	724,255	Rs. 911/kW/M	67.1	1928	57
25	Suki Kinari	Private	884	883	-	Rs. 5662/kW/M	-	-	-
26	Jagran-I	Public	30	30	17,894	Rs. 3.5418/kWh	80.2	-	46
27	Jabban Hydel Power Station	WAPDA	22	22	13,918	Rs. 2870/kW/M	85.0	79	4
28	Tarbela	WAPDA	3,478	3,478	2,392,910	Rs. 590/kW/M	92.5	4112	103
29	NJHPC	Public	969	969	-	Rs. 9.1184/kWh	-	-	-
30	Tarbela4th Extension Project	WAPDA	1,410	1,410	929,660	Rs. 978/kW/M	88.6	2130	125
31	Ranolia	PEDO	17	17	-	Rs. 4.1678/kWh	-	-	-
	Total		11,492	11,428	5,341,225		62.82	42,725	847

Note:

- Tariff Adjusted refers to the tariff that is applicable for the respective quarter.
- As per CPPA-G:
 - CPP includes other payment as well.
 - CPP of Karot HPP for July, 24 includes differential invoices for the period Dec, 23 to June, 24 as well.
- The data pertaining to Net Generation and EPP has been sourced from the Monthly Energy Purchase Data submitted by CPPA-G, except for WAPDA's plants, whose data has been provided separately by CPPA-G.
- The data pertaining to CPP has been provided by CPPA-G.

August, 2024
Hydel

Details of EPP, CPP and Other Supplemental Charges

S. No.	Plant Name	Entity	Inst. Capacity	Ref. Capacity	August, 2024				
					Net Generation	Tariff Adjusted	Utilization Factor	CPP	EPP
C. HYDEL			MW	MW	MWh		%	Rs. Million	Rs. Million
1	Gomal Zam	WAPDA	17	17	105	Rs. 5085/kW/M	0.8	42	0
2	Jinnah Hydel Power Station	WAPDA	96	36	7,325	Rs. 1798/kW/M	27.3	189	3
3	Chitral Hydel Power Station	WAPDA	1	1	217	Rs. 7241/kW/M	29.2	15	0
4	Renala	WAPDA	1	1	199	Rs. 5632/kW/M	26.8	11	0
5	Golen Gol	WAPDA	108	108	31,870	Rs. 3465/kW/M	39.7	939	51
6	Rasul Hydel Power Station	WAPDA	22	22	4,631	Rs. 1272/kW/M	28.3	49	1
7	Shadiwal Power Station	WAPDA	14	14	3,052	Rs. 1528/kW/M	29.3	37	1
8	New Bong Escape	Private	84	84	5,407	Rs.14.82*/kWh	8.7	512	3
9	Chichoki	WAPDA	13	13	3,305	Rs. 1451/kW/M	34.2	35	1
10	Khan Khwar Hydel Power Station	WAPDA	72	72	28,898	Rs. 2062/kW/M	53.9	282	8
11	Malakand-III	PEDO	84	81	23,747	Rs.9.32*/kWh	39.4	136	-
12	Gulpur	Private	100	100	43,921	Rs. 13287/kW/M	59.0	644	9
13	Nandipur Hydel Power Station	WAPDA	14	14	4,566	Rs. 1661/kW/M	43.8	46	1
14	Dargai	WAPDA	20	20	6,000	Rs. 1426/kW/M	40.3	55	1
15	Mangla Power Station	WAPDA	1,000	1,000	185,284	Rs.1017/kW/M	24.9	1500	20
16	Allai Khwar	WAPDA	121	121	50,053	Rs.1742/kW/M	55.6	353	11
17	Warsak Hydel Power Plant	WAPDA	243	243	90,697	Rs. 1002/kW/M	50.2	469	10
18	Karot	Private	720	720	280,143	Rs. 8284/kW/M	52.3	2200	100
19	Kurram Garhi	WAPDA	4	4	1,733	Rs. 3427/kW/M	58.2	23	1
20	Chashma Hydel Power Station	WAPDA	184	184	54,116	Rs. 1909/kW/M	39.5	457	11
21	Patrind	Private	147	147	78,717	Rs. 10094/kW/M	72.0	-780	15
22	Duber Khwar Hydel Power Station	WAPDA	130	130	66,610	Rs. 2319/kW/M	68.9	553	22
23	Daral Khwar Hydro Power Station	PEDO	37	37	16,557	Rs. 8.2683/kWh	60.1	-	137
24	Ghazi Barotha	WAPDA	1,450	1,450	713,101	Rs. 911/kW/M	66.1	2693	52
25	Suki Kinari	Private	884	883	37,755	Rs. 5662/kW/M	5.7	-	
26	Jagran-I	Public	30	30	14,483	Rs. 3.5418/kWh	64.9	-	38
27	Jabban Hydel Power Station	WAPDA	22	22	13,316	Rs. 2870/kW/M	81.4	81	4
28	Tarbela	WAPDA	3,478	3,478	2,566,842	Rs. 590/kW/M	99.2	7115	102
29	NJHPC	Public	969	969	-	Rs. 9.1184/kWh	-	-	-
30	Tarbela4th Extension Project	WAPDA	1,410	1,410	1,028,913	Rs. 978/kW/M	-	4111	127
31	Ranolia	PEDO	17	17	-	Rs. 4.1678/kWh	-	-	-
	Total		11,492	11,428	5,361,563		63.1	21,767	727

Note:

- Tariff Adjusted refers to the tariff that is applicable for the respective quarter.
- As per CPPA-G:
 - CPP includes other payment as well.
- The data pertaining to Net Generation and EPP has been sourced from the Monthly Energy Purchase Data submitted by CPPA-G, except for WAPDA's plants, whose data has been provided separately by CPPA-G.
- The data pertaining to CPP has been provided by CPPA-G.

September, 2024
Hydel

Details of EPP, CPP and Other Supplemental Charges

S. No.	Plant Name	Entity	Inst. Capacity	Ref. Capacity	September, 2024				
					Net Generation	Tariff Adjusted	Utilization Factor	CPP	EPP
C. HYDEL			MW	MW	MWh		%	Rs. Million	Rs. Million
1	Gomal Zam	WAPDA	17	17	1,819	Rs. 5085/kW/M	14.9	45	2
2	Jinnah Hydel Power Station	WAPDA	96	36	6,310	Rs. 1798/kW/M	24.3	187	3
3	Chitral Hydel Power Station	WAPDA	1	1	173	Rs. 7241/kW/M	24.0	15	0
4	Renala	WAPDA	1	1	181	Rs. 5632/kW/M	25.1	11	0
5	Golen Gol	WAPDA	108	108	27,276	Rs. 3465/kW/M	35.1	932	44
6	Rasul Hydel Power Station	WAPDA	22	22	3,348	Rs. 1272/kW/M	21.1	47	1
7	Shadiwal Power Station	WAPDA	14	14	3,140	Rs. 1528/kW/M	31.1	37	1
8	New Bong Escape	Private	84	84	34,778	Rs.14.82*/kWh	57.5	44	33
9	Chichoki	WAPDA	13	13	2,866	Rs. 1451/kW/M	30.6	34	1
10	Khan Khwar Hydel Power Station	WAPDA	72	72	10,329	Rs. 2062/kW/M	19.9	253	3
11	Malakand-III	PEDO	84	81	-	Rs.9.32*/kWh	-	130	-
12	Gulpur	Private	100	100	27,727	Rs. 13287/kW/M	38.5	644	5
13	Nandipur Hydel Power Station	WAPDA	14	14	3,988	Rs. 1661/kW/M	39.6	45	1
14	Dargai	WAPDA	20	20	6,417	Rs. 1426/kW/M	44.6	55	1
15	Mangla Power Station	WAPDA	1,000	1,000	491,265	Rs.1017/kW/M	68.2	1838	53
16	Allai Khwar	WAPDA	121	121	31,580	Rs.1742/kW/M	36.2	325	7
17	Warsak Hydel Power Plant	WAPDA	243	243	85,896	Rs. 1002/kW/M	49.1	462	9
18	Karot	Private	720	720	227,041	Rs. 8284/kW/M	43.8	2200	81
19	Kurram Garhi	WAPDA	4	4	1,655	Rs. 3427/kW/M	57.4	22	1
20	Chashma Hydel Power Station	WAPDA	184	184	102,441	Rs. 1909/kW/M	77.3	528	21
21	Patrind	Private	147	147	47,857	Rs. 10094/kW/M	45.2	547	10
22	Duber Khwar Hydel Power Station	WAPDA	130	130	45,133	Rs. 2319/kW/M	48.2	520	15
23	Daral Khwar Hydro Power Station	PEDO	37	37	10,112	Rs. 8.2683/kWh	38.0	-	2
24	Ghazi Barotha	WAPDA	1,450	1,450	719,114	Rs. 911/kW/M	68.9	2702	53
25	Suki Kinari	Private	884	883	217,557	Rs. 5662/kW/M	60.4	-	-
26	Jagran-I	Public	30	30	15,079	Rs. 3.9799/kWh	69.8	-	39
27	Jabban Hydel Power Station	WAPDA	22	22	13,283	Rs. 2870/kW/M	83.9	80	4
28	Tarbela	WAPDA	3,478	3,478	1,914,451	Rs. 590/kW/M	76.5	6102	76
29	NJHPC	Public	969	969	-	Rs. 9.1184/kWh	-	-	-
30	Tarbela4th Extension Project	WAPDA	1,410	1,410	787,169	Rs. 978/kW/M	77.5	3736	97
31	Ranolia	PEDO	17	17	-	Rs. 4.1678/kWh	-	-	-
	Total		11,492	11,428	4,837,981		58.8	21,541	562

Note:

1. Tariff Adjusted refers to the tariff that is applicable for the respective quarter.
2. As per CPPA-G:
 - i. CPP includes other payment as well.
3. The data pertaining to Net Generation and EPP has been sourced from the Monthly Energy Purchase Data submitted by CPPA-G, except for WAPDA's plants, whose data has been provided separately by CPPA-G.
4. The data pertaining to CPP has been provided by CPPA-G.

Details of EPP, CPP and Other Supplemental Charges

S. No.	Plant Name	Fuel Type	Inst. Capacity (MW)	Ref. Capacity (MW)	July-September, 2024					
					Net Generation (MWh)	Tariff Adjusted (Rs./kWh)	Utilization Factor (%)	CPP (Rs.Million)	NPMV (MWh)	NPMV Amount (Rs.Million)
D. RENEWABLE (Wind)										
1	Sapphire Wind Power Company	Wind	53	50	23,581	46.22	21.4	1,321	4,846	210
2	FFC Energy	Wind	50	50	24,205	13.07	21.9	620	3,003	37
3	Gul Ahmed Wind Power	Wind	50	50	24,499	42.16	22.2	1,305	4,647	184
4	Yunus Energy	Wind	50	50	24,570	36.58	22.3	1,171	4,910	168
5	UEP Wind Power	Wind	99	99	50,432	47.95	23.1	2,855	9,120	410
6	Master Wind Energy	Wind	50	50	25,495	42.16	23.1	1,278	4,844	192
7	Three Gorges Second Wind Farm Pakistan	Wind	50	50	25,914	37.63	23.5	1,162	4,967	177
8	Three Gorges Third Wind Farm Pakistan	Wind	50	50	26,880	37.63	24.3	1,175	5,045	179
9	Zorlu Enerji Pakistan	Wind	56	56	32,391	19.11	26.2	3,615	3,030	53
10	Three Gorges First Wind Farm Pakistan	Wind	50	50	28,824	16.92	26.1	989	3,945	66
11	Hydrochina Dawood Power	Wind	50	50	28,955	47.95	26.2	1,498	4,064	180
12	Sachal Energy Development	Wind	50	50	29,458	43.80	26.7	2,321	-	-
13	Tenaga Generasi	Wind	50	50	29,980	44.77	27.2	1,560	4,873	191
14	Hawa Energy	Wind	50	50	31,793	36.95	28.8	1,382	5,652	198
15	Metro Power Company	Wind	50	50	32,015	35.00	29.0	1,955	3,945	135
16	ACT Wind	Wind	30	30	19,972	31.08	30.2	691	1,416	44
17	Jhimpir Power	Wind	50	50	33,288	36.95	30.2	1,438	5,659	197
18	Foundation Wind Energy-I	Wind	50	50	33,542	40.43	30.4	2,588	3,923	151
19	Liberty Wind Power-I	Wind	50	50	35,191	14.00	31.9	595	6,530	87
20	DIN Energy	Wind	50	50	35,360	14.00	32.0	598	6,492	86
21	Tricon Boston-C	Wind	50	50	35,319	38.00	32.0	-	5,591	199
22	Tricon Boston-B	Wind	50	50	35,967	37.90	32.6	-	5,538	197
23	Foundation Wind Energy-II	Wind	50	50	36,420	30.35	33.0	1,991	3,878	116
24	Liberty Wind Power-II	Wind	50	50	36,434	14.27	33.0	612	6,456	86
25	Master Green Energy	Wind	50	50	36,479	14.27	33.0	627	6,695	92
26	Artistic Wind Power	Wind	50	50	37,723	20.91	34.2	617	6,583	87
27	Tricon Boston-A	Wind	50	50	37,980	37.90	34.4	4,716	5,477	178
28	Lakeside Energy	Wind	50	50	38,626	14.06	35.0	624	5,830	75
29	Lucky Renewables	Wind	50	50	38,703	14.75	35.1	739	6,754	93
30	NASDA Green Energy	Wind	50	50	39,387	14.08	35.7	646	6,584	87
31	Gul Ahmed Electric	Wind	50	50	39,930	14.09	36.2	577	6,634	87
32	ACT2 DIN Wind	Wind	50	50	40,150	14.14	36.4	662	5,517	88
33	Indus Wind Energy	Wind	50	50	40,956	14.34	37.1	681	6,563	87
34	Zephyr Power	Wind	50	50	43,781	33.89	39.7	1,790	4,631	129
35	Artistic Energy	Wind	50	50	46,999	20.91	42.6	1,144	2,842	59
36	Metro Wind Power	Wind	60	60	57,504	17.32	43.4	1,131	7,771	125
	Total		1,848.00	1,845	1,238,707		30.4	46,562	184,258	4,727
D. RENEWABLE (Solar)										
1	AJ Power	Solar	12	12	4,698	29.30	17.7	138	13	0
2	Quaid E Azam Solar	Solar	100	96	40,262	30.73	19.0	1,496	21	0
3	Best Green Energy Pakistan	Solar	100	96	42,295	48.62	20.0	1,962	-	-
4	Appolo Solar Development Pakistan	Solar	100	96	42,672	46.22	20.1	1,974	30	1
5	Crest Energy Pakistan	Solar	100	96	43,307	48.99	20.4	1,988	8	0
6	Harappa Solar	Solar	18	18	8,810	29.56	22.2	256	7	0
7	Atlas Solar	Solar	100	100	50,217	14.24	22.7	864	-	-
8	HNDS Energy	Solar	50	50	27,007	-	24.5	188	237	1
9	Helios Power	Solar	50	50	27,223	11.43	24.7	190	236	1
10	Meridian Energy	Solar	50	50	27,305	-	24.7	192	237	1
	Total		680	664	313,796	-	21.4	9,248	790	7

Note:

1. Tariff Adjusted refers to the reference tariff that has been adjusted/revised by NEPRA for the respective quarter.
2. The data pertaining to Net Generation has been sourced from the Monthly Energy Purchase Data submitted by CPPA-G.
3. The data pertaining to CPP and NPMV has been provided by CPPA-G.
4. The CPP of Tricon Boston-A also includes the CPP of Tricon Boston-B and Tricon Boston-C.

Details of EPP, CPP and Other Supplemental Charges

Sr. No	Plant Name	Fuel Type	Inst. Capacity (MW)	Ref. Capacity (MW)	July-September, 2024				
					Net Generation (MWh)	Tariff Adjusted (Rs./kWh)	Utilization Factor (%)	CPP (Rs.Million)	EPP (Rs.Million)
D. RENEWABLE (Bagasse)									
1	Fatima Energy	Bagasse	119	108	-	-	-	-	-
2	Hamza Sugar Mills	Bagasse	15	15	-	9.50	-	-	-
3	Chanar Energy	Bagasse	22	22	-	10.31	-	-	-
4	Thal Industries Corporation	Bagasse	20	20	-	9.71	-	-	-
5	Almoiz Industries	Bagasse	36	36	0	9.96	0.0	591	0
6	RYK Mills	Bagasse	40	24	9,145	12.48	17.3	69	117
7	Chiniot Power	Bagasse	63	63	30,767	10.24	22.3	267	300
8	JDW-III	Bagasse	27	24	43,072	9.00	74.0	-	-
9	JDW-II	Bagasse	26	24	52,694	8.94	90.6	220	1,123
Total			368	336	135,678		18.3	1,147	1,541

Note:

1. Tariff Adjusted refers to the reference tariff that has been adjusted/revised by NEPRA for the respective quarter.
2. The data pertaining to Net Generation and EPP has been sourced from the Monthly Energy Purchase Data submitted by CPPA-G.
3. The data pertaining to CPP has been provided by CPPA-G.

Details of EPP, CPP and Other Supplemental Charges

S. No.	Plant Name	Fuel Type	Inst. Capacity (MW)	Ref. Capacity (MW)	July, 2024					
					Net Generation (MWh)	Tariff Adjusted (Rs./kWh)	Utilization Factor (%)	CPP (Rs.Million)	NPMV (MWh)	NPMV Amount (Rs.Million)
D. RENEWABLE (Wind)										
1	Sapphire Wind Power Company	Wind	53	50	9,379	46.22	25.2	475	848	39
2	FFC Energy	Wind	50	50	8,675	13.07	23.3	486	301	4
3	Gul Ahmed Wind Power	Wind	50	50	9,362	42.16	25.2	419	712	30
4	Yunus Energy	Wind	50	50	9,439	36.58	25.4	373	748	27
5	UEP Wind Power	Wind	99	99	19,281	47.95	26.2	924	1,341	64
6	Master Wind Energy	Wind	50	50	9,813	42.16	26.4	447	803	34
7	Three Gorges Second Wind Farm Pakistan	Wind	50	50	10,277	37.63	27.6	415	737	28
8	Three Gorges Third Wind Farm Pakistan	Wind	50	50	10,537	37.63	28.3	397	715	27
9	Zorlu Enerji Pakistan	Wind	56	56	11,207	19.11	26.9	57	-	-
10	Three Gorges First Wind Farm Pakistan	Wind	50	50	10,179	16.92	27.4	411	361	6
11	Hydrochina Dawood Power	Wind	50	50	10,255	47.95	27.6	435	694	33
12	Sachal Energy Development	Wind	50	50	10,313	43.80	27.7	870	-	-
13	Tenaga Generasi	Wind	50	50	10,298	44.77	27.7	496	702	31
14	Hawa Energy	Wind	50	50	12,767	36.95	34.3	504	884	33
15	Metro Power Company	Wind	50	50	11,013	35.00	29.6	797	309	11
16	ACT Wind	Wind	30	30	6,759	31.08	30.3	225	67	2
17	Jhimpir Power	Wind	50	50	12,929	36.95	34.8	509	873	32
18	Foundation Wind Energy-I	Wind	50	50	10,720	40.43	28.8	789	322	13
19	Liberty Wind Power-I	Wind	50	50	12,455	14.00	33.5	194	1,198	17
20	DIN Energy	Wind	50	50	12,206	14.00	32.8	191	1,144	16
21	Tricon Boston-C	Wind	50	50	13,310	38.00	35.8	-	879	33
22	Tricon Boston-B	Wind	50	50	13,591	37.90	36.5	-	898	34
23	Foundation Wind Energy-II	Wind	50	50	12,134	30.35	32.6	593	408	13
24	Liberty Wind Power-II	Wind	50	50	13,009	14.27	35.0	202	1,144	16
25	Master Green Energy	Wind	50	50	14,616	14.27	39.3	229	1,157	17
26	Artistic Wind Power	Wind	50	50	13,028	20.91	35.0	191	1,165	16
27	Tricon Boston-A	Wind	50	50	14,248	37.90	38.3	1,661	915	35
28	Lakeside Energy	Wind	50	50	13,553	14.06	36.4	205	1,198	17
29	Lucky Renewables	Wind	50	50	14,530	14.75	39.1	301	1,190	18
30	NASDA Green Energy	Wind	50	50	13,596	14.08	36.5	190	1,178	17
31	Gul Ahmed Electric	Wind	50	50	13,964	14.09	37.5	212	1,121	16
32	ACT2 DIN Wind	Wind	50	50	14,072	14.14	37.8	215	1	17
33	Indus Wind Energy	Wind	50	50	13,539	14.34	36.4	211	1,142	16
34	Zephyr Power	Wind	50	50	15,512	33.89	41.7	525	714	24
35	Artistic Energy	Wind	50	50	15,370	20.91	41.3	321	128	3
36	Metro Wind Power	Wind	60	60	19,072	17.32	42.7	330	1,222	21
	Total		1,848.00	1,845	445,007		32.4	14,687	27,219	762
D. RENEWABLE (Solar)										
1	AJ Power	Solar	12	12	1,594	29.30	17.9	47	11	0
2	Quaid E Azam Solar	Solar	100	96	14,118	30.73	19.8	381	21	0
3	Best Green Energy Pakistan	Solar	100	96	14,874	48.62	20.8	628	-	-
4	Appolo Solar Development Pakistan	Solar	100	96	14,867	46.22	20.8	687	30	1
5	Crest Energy Pakistan	Solar	100	96	15,095	48.99	21.1	606	8	0
6	Harappa Solar	Solar	18	18	3,124	29.56	23.3	96	7	0
7	Atlas Solar	Solar	100	100	18,187	14.24	24.4	408	-	-
8	HNDS Energy	Solar	50	50	9,463	-	25.4	67	187	1
9	Helios Power	Solar	50	50	9,580	11.43	25.8	67	187	1
10	Meridian Energy	Solar	50	50	9,592	-	25.8	68	187	1
	Total		680	664	110,494		22.4	3,055	639	7

Note:

1. Tariff Adjusted refers to the reference tariff that has been adjusted/revised by NEPRA for the respective quarter.
2. The data pertaining to Net Generation has been sourced from the Monthly Energy Purchase Data submitted by CPPA-G.
3. The data pertaining to CPP and NPMV has been provided by CPPA-G.
4. The CPP of Tricon Boston-A also includes the CPP of Tricon Boston-B and Tricon Boston-C.

Details of EPP, CPP and Other Supplemental Charges

Sr. No	Plant Name	Fuel Type	Inst. Capacity (MW)	Ref. Capacity (MW)	July, 2024				
					Net Generation (MWh)	Tariff Adjusted (Rs./kWh)	Utilization Factor (%)	CPP (Rs.Million)	EPP (Rs.Million)
D. RENEWABLE (Bagasse)									
1	Fatima Energy	Bagasse	119	108	-	-	-	-	-
2	Hamza Sugar Mills	Bagasse	15	15	-	9.50	-	-	-
3	Chanar Energy	Bagasse	22	22	-	10.31	-	-	-
4	Thal Industries Corporation	Bagasse	20	20	-	9.71	-	-	-
5	Almoiz Industries	Bagasse	36	36	-	9.96	-	-	-
6	RYK Mills	Bagasse	40	24	1,450	12.48	8.1	11	11
7	Chiniot Power	Bagasse	63	63	20,206	10.24	43.1	176	152
8	JDW-III	Bagasse	27	24	13,670	9.00	76.6	20	-
9	JDW-II	Bagasse	26	24	18,040	8.94	101.0	20	234
Total			368	336	53,366		21.3	227	397

Note:

1. Tariff Adjusted refers to the reference tariff that has been adjusted/revised by NEPRA for the respective quarter.
2. The data pertaining to Net Generation and EPP has been sourced from the Monthly Energy Purchase Data submitted by CPPA-G.
3. The data pertaining to CPP has been provided by CPPA-G.

Details of EPP, CPP and Other Supplemental Charges

S. No.	Plant Name	Fuel Type	Inst. Capacity (MW)	Ref. Capacity (MW)	August, 2024					
					Net Generation (MWh)	Tariff Adjusted (Rs./kWh)	Utilization Factor (%)	CPP (Rs.Million)	NPMV (MWh)	NPMV Amount (Rs.Million)
D. RENEWABLE (Wind)										
1	Sapphire Wind Power Company	Wind	53	50	7,446	46.22	20.0	516	3,658	169
2	FFC Energy	Wind	50	50	9,729	13.07	26.2	58	2,491	33
3	Gul Ahmed Wind Power	Wind	50	50	7,905	42.16	21.2	428	3,613	152
4	Yunus Energy	Wind	50	50	7,957	36.58	21.4	523	3,818	140
5	UEP Wind Power	Wind	99	99	15,978	47.95	21.7	1,174	7,149	343
6	Master Wind Energy	Wind	50	50	8,203	42.16	22.1	503	3,712	156
7	Three Gorges Second Wind Farm Pakistan	Wind	50	50	8,166	37.63	22.0	455	3,930	148
8	Three Gorges Third Wind Farm Pakistan	Wind	50	50	8,494	37.63	22.8	471	4,021	151
9	Zorlu Enerji Pakistan	Wind	56	56	12,562	19.11	30.1	308	2,751	53
10	Three Gorges First Wind Farm Pakistan	Wind	50	50	11,498	16.92	30.9	348	3,300	59
11	Hydrochina Dawood Power	Wind	50	50	8,710	47.95	23.4	561	3,027	145
12	Sachal Energy Development	Wind	50	50	12,061	43.80	32.4	1,021	-	-
13	Tenaga Generasi	Wind	50	50	9,053	44.77	24.3	559	3,504	157
14	Hawa Energy	Wind	50	50	9,621	36.95	25.9	519	4,442	164
15	Metro Power Company	Wind	50	50	12,956	35.00	34.8	725	3,358	122
16	ACT Wind	Wind	30	30	7,536	31.08	33.8	240	1,295	42
17	Jhimpir Power	Wind	50	50	10,117	36.95	27.2	538	4,430	164
18	Foundation Wind Energy-I	Wind	50	50	12,366	40.43	33.2	925	3,324	137
19	Liberty Wind Power-I	Wind	50	50	10,548	14.00	28.4	220	4,823	69
20	DIN Energy	Wind	50	50	10,319	14.00	27.7	217	4,848	69
21	Tricon Boston-C	Wind	50	50	10,686	38.00	28.7	-	4,334	164
22	Tricon Boston-B	Wind	50	50	10,859	37.90	29.2	-	4,264	162
23	Foundation Wind Energy-II	Wind	50	50	13,315	30.35	35.8	695	3,301	102
24	Liberty Wind Power-II	Wind	50	50	10,937	14.27	29.4	225	4,795	68
25	Master Green Energy	Wind	50	50	11,575	14.27	31.1	168	5,059	74
26	Artistic Wind Power	Wind	50	50	11,242	20.91	30.2	229	4,918	70
27	Tricon Boston-A	Wind	50	50	11,478	37.90	30.9	1,682	4,189	142
28	Lakeside Energy	Wind	50	50	11,377	14.06	30.6	219	4,100	58
29	Lucky Renewables	Wind	50	50	11,968	14.75	32.2	251	5,037	74
30	NASDA Green Energy	Wind	50	50	11,711	14.08	31.5	268	4,920	69
31	Gul Ahmed Electric	Wind	50	50	11,445	14.09	30.8	161	4,985	70
32	ACT2 DIN Wind	Wind	50	50	11,813	14.14	31.8	238	4,995	71
33	Indus Wind Energy	Wind	50	50	11,770	14.34	31.6	238	4,875	70
34	Zephyr Power	Wind	50	50	13,583	33.89	36.5	776	2,991	101
35	Artistic Energy	Wind	50	50	17,292	20.91	46.5	438	2,559	56
36	Metro Wind Power	Wind	60	60	15,981	17.32	35.8	401	5,918	103
	Total		1,848.00	1,845	398,254		29.0	16,296	142,734	3,926
D. RENEWABLE (Solar)										
1	AJ Power	Solar	12	12	1,461	29.30	16.4	43	2	0
2	Quaid E Azam Solar	Solar	100	96	12,647	30.73	17.7	389	-	-
3	Best Green Energy Pakistan	Solar	100	96	13,588	48.62	19.0	662	-	-
4	Appolo Solar Development Pakistan	Solar	100	96	13,499	46.22	18.9	625	-	-
5	Crest Energy Pakistan	Solar	100	96	13,691	48.99	19.2	671	-	-
6	Harappa Solar	Solar	18	18	2,808	29.56	21.0	86	-	-
7	Atlas Solar	Solar	100	100	15,500	14.24	20.8	221	-	-
8	HNDS Energy	Solar	50	50	8,369	-	22.5	58	-	-
9	Helios Power	Solar	50	50	8,385	11.43	22.5	58	-	-
10	Meridian Energy	Solar	50	50	8,428	-	22.7	60	-	-
	Total		680	664	98,373		19.9	2,871	2	0

- Note:
1. Tariff Adjusted refers to the reference tariff that has been adjusted/revised by NEPRA for the respective quarter.
 2. The data pertaining to Net Generation has been sourced from the Monthly Energy Purchase Data submitted by CPPA-G.
 3. The data pertaining to CPP and NPMV has been provided by CPPA-G.
 4. The CPP of Tricon Boston-A also includes the CPP of Tricon Boston-B and Tricon Boston-C.

August, 2024
Renewable

Details of EPP, CPP and Other Supplemental Charges

Sr. No	Plant Name	Fuel Type	Inst. Capacity (MW)	Ref. Capacity (MW)	August, 2024				
					Net Generation (MWh)	Tariff Adjusted (Rs./kWh)	Utilization Factor (%)	CPP (Rs.Million)	EPP (Rs.Million)
D. RENEWABLE (Bagasse)									
1	Fatima Energy	Bagasse	119	108	-	-	-	-	-
2	Hamza Sugar Mills	Bagasse	15	15	-	9.50	-	-	-
3	Chanar Energy	Bagasse	22	22	-	10.31	-	-	-
4	Thal Industries Corporation	Bagasse	20	20	-	9.71	-	-	-
5	Almoiz Industries	Bagasse	36	36	-	9.96	-	-	-
6	RYK Mills	Bagasse	40	24	5,737	12.48	32.1	43	80
7	Chiniot Power	Bagasse	63	63	10,560	10.24	22.5	92	148
8	JDW-III	Bagasse	27	24	12,366	9.00	69.3	28	
9	JDW-II	Bagasse	26	24	18,045	8.94	101.1	59	422
	Total		368	336	46,709		18.7	222	650

Note:

1. Tariff Adjusted refers to the reference tariff that has been adjusted/revised by NEPRA for the respective quarter.
2. The data pertaining to Net Generation and EPP has been sourced from the Monthly Energy Purchase Data submitted by CPPA-G.
3. The data pertaining to CPP has been provided by CPPA-G.

September, 2024
Renewable

Details of EPP, CPP and Other Supplemental Charges

S. No.	Plant Name	Fuel Type	Inst. Capacity (MW)	Ref. Capacity (MW)	September, 2024					
					Net Generation (MWh)	Tariff Adjusted (Rs./kWh)	Utilization Factor	CPP (Rs.Million)	NPMV (MWh)	NPMV Amount (Rs.Million)
D. RENEWABLE (Wind)										
1	Sapphire Wind Power Company	Wind	53	50	6,756	46.22	18.8	330	341	2
2	FFC Energy	Wind	50	50	5,802	13.07	16.1	76	211	0
3	Gul Ahmed Wind Power	Wind	50	50	7,233	42.16	20.1	457	322	1
4	Yunus Energy	Wind	50	50	7,173	36.58	19.9	275	343	1
5	UEP Wind Power	Wind	99	99	15,173	47.95	21.3	757	630	3
6	Master Wind Energy	Wind	50	50	7,480	42.16	20.8	329	329	1
7	Three Gorges Second Wind Farm Pakistan	Wind	50	50	7,471	37.63	20.8	292	300	1
8	Three Gorges Third Wind Farm Pakistan	Wind	50	50	7,848	37.63	21.8	307	309	1
9	Zorlu Enerji Pakistan	Wind	56	56	8,622	19.11	21.4	3,250	278	1
10	Three Gorges First Wind Farm Pakistan	Wind	50	50	7,147	16.92	19.9	230	284	1
11	Hydrochina Dawood Power	Wind	50	50	9,991	47.95	27.8	502	343	2
12	Sachal Energy Development	Wind	50	50	7,085	43.80	19.7	430	-	-
13	Tenaga Generasi	Wind	50	50	10,628	44.77	29.5	506	667	3
14	Hawa Energy	Wind	50	50	9,405	36.95	26.1	360	327	1
15	Metro Power Company	Wind	50	50	8,047	35.00	22.4	433	278	1
16	ACT Wind	Wind	30	30	5,678	31.08	26.3	226	53	0
17	Jhimpir Power	Wind	50	50	10,243	36.95	28.5	391	356	1
18	Foundation Wind Energy-I	Wind	50	50	10,457	40.43	29.0	874	277	1
19	Liberty Wind Power-I	Wind	50	50	12,188	14.00	33.9	181	509	1
20	DIN Energy	Wind	50	50	12,835	14.00	35.7	190	501	1
21	Tricon Boston-C	Wind	50	50	11,323	38.00	31.5	-	378	1
22	Tricon Boston-B	Wind	50	50	11,518	37.90	32.0	-	375	1
23	Foundation Wind Energy-II	Wind	50	50	10,971	30.35	30.5	704	170	1
24	Liberty Wind Power-II	Wind	50	50	12,488	14.27	34.7	186	517	1
25	Master Green Energy	Wind	50	50	10,288	14.27	28.6	230	479	1
26	Artistic Wind Power	Wind	50	50	13,453	20.91	37.4	197	500	1
27	Tricon Boston-A	Wind	50	50	12,254	37.90	34.0	1,373	373	1
28	Lakeside Energy	Wind	50	50	13,696	14.06	38.0	200	532	1
29	Lucky Renewables	Wind	50	50	12,206	14.75	33.9	188	527	1
30	NASDA Green Energy	Wind	50	50	14,081	14.08	39.1	188	486	1
31	Gul Ahmed Electric	Wind	50	50	14,521	14.09	40.3	205	528	1
32	ACT2 DIN Wind	Wind	50	50	14,264	14.14	39.6	209	522	1
33	Indus Wind Energy	Wind	50	50	15,647	14.34	43.5	232	546	1
34	Zephyr Power	Wind	50	50	14,686	33.89	40.8	489	926	3
35	Artistic Energy	Wind	50	50	14,337	20.91	39.8	385	155	0
36	Metro Wind Power	Wind	60	60	22,451	17.32	52.0	399	631	1
	Total		1,848.00	1,845	395,446		29.8	15,579	14,305	39
D. RENEWABLE (Solar)										
1	AJ Power	Solar	12	12	1,643	29.30	19.0	48	0	0
2	Quaid E Azam Solar	Solar	100	96	13,497	30.73	19.5	726	-	-
3	Best Green Energy Pakistan	Solar	100	96	13,834	48.62	20.0	673	-	-
4	Appolo Solar Development Pakistan	Solar	100	96	14,305	46.22	20.7	661	-	-
5	Crest Energy Pakistan	Solar	100	96	14,522	48.99	21.0	711	-	-
6	Harappa Solar	Solar	18	18	2,878	29.56	22.2	75	-	-
7	Atlas Solar	Solar	100	100	16,531	14.24	23.0	235	-	-
8	HNDS Energy	Solar	50	50	9,175	-	25.5	64	50	0
9	Helios Power	Solar	50	50	9,259	11.43	25.7	64	49	0
10	Meridian Energy	Solar	50	50	9,285	-	25.8	65	50	0
	Total		680	664	104,929		21.9	3,322	150	0

Note:

1. Tariff Adjusted refers to the reference tariff that has been adjusted/revised by NEPRA for the respective quarter.
2. The data pertaining to Net Generation has been sourced from the Monthly Energy Purchase Data submitted by CPPA-G.
3. The data pertaining to CPP and NPMV has been provided by CPPA-G.
4. The CPP of Tricon Boston-A also includes the CPP of Tricon Boston-B and Tricon Boston-C.

September, 2024
Renewable

Details of EPP, CPP and Other Supplemental Charges

Sr. No	Plant Name	Fuel Type	Inst. Capacity (MW)	Ref. Capacity (MW)	September, 2024				
					Net Generation (MWh)	Tariff Adjusted (Rs./kWh)	Utilization Factor (%)	CPP (Rs.Million)	EPP (Rs.Million)
D. RENEWABLE (Bagasse)									
1	Fatima Energy	Bagasse	119	108	-	-	-	-	-
2	Hamza Sugar Mills	Bagasse	15	15	-	9.50	-	-	-
3	Chanar Energy	Bagasse	22	22	-	10.31	-	-	-
4	Thal Industries Corporation	Bagasse	20	20	-	9.71	-	-	-
5	Almoiz Industries	Bagasse	36	36	0	9.96	0.0	591	-
6	RYK Mills	Bagasse	40	24	1,958	12.48	11.3	15	27
7	Chiniot Power	Bagasse	63	63	-	10.24	-	-	-
8	JDW-III	Bagasse	27	24	17,036	9.00	98.6	39	
9	JDW-II	Bagasse	26	24	16,609	8.94	96.1	54	467
Total			368	336	35,602		14.7	698	494

Note:

1. Tariff Adjusted refers to the reference tariff that has been adjusted/revised by NEPRA for the respective quarter.
2. The data pertaining to Net Generation and EPP has been sourced from the Monthly Energy Purchase Data submitted by CPPA-G.
3. The data pertaining to CPP has been provided by CPPA-G.

Key Performance Parameters of Power Plants in KE System (Thermal)																				
Sr. No	Plant Name	Fuel Type	Inst. Capacity MW	Ref. Capacity MW	Jul-24			Aug-24			Sep-24			July-Sep						
					Net Generation MWh	Tariff Adjusted Rs./kW/h	Utilization Factor %	Energy Cost Rs. Million	Net Generation MWh	Tariff Adjusted Rs./kW/h	Utilization Factor %	Energy Cost Rs. Million	Net Generation MWh	Tariff Adjusted Rs./kW/h	Utilization Factor %	Energy Cost Rs. Million				
A. THERMAL (Gas)																				
1	BQPS II	Gas	572	526	312,352	-	79.8	8,674.28	290,521	-	74.2	8,280.35	198,898	-	52.5	5,615.03	804,771	-	69.0	22,570
2	KCCP	Gas	248	227	39,519	-	23.4	1,667.30	29,120	-	17.2	1,256.05	26,476	-	16.2	1,045.39	95,115	-	19.0	3,969
3	KGTPS	Gas	107	96	1,364	-	1.9	52.72	45	-	0.1	2.38	435	-	0.6	17.25	1,844	-	0.9	72
4	SGTPS	Gas	107	96	-	-	0.0	0.00	-	-	0.0	0.00	-	-	0.0	-	0	-	0.0	0
5	Lucky Cement	Gas	5	5	448	-	12.0	12.32	356	-	9.6	9.79	316	-	8.8	8.69	1,120	-	10.1	31
6	Intl Steel Ltd.	Gas	19	17	979	-	7.7	16.55	1,565	-	12.4	13.90	2,172	-	17.7	12.60	4,716	-	12.6	43
7	SNPC-I	Gas	52	51	24,371	1.2024	64.2	262.51	26,161	1.2024	68.9	281.63	24,806	1.2024	67.6	266.82	75,338	1.2024	66.9	811
8	SNPC-II	Gas	52	51	30,812	1.1939	81.2	330.23	31,002	1.1939	81.7	332.08	23,040	1.1939	62.7	246.57	84,854	1.1939	75.4	909
9	Lotte	Gas	14	14																
Total (Gas)					409,845	2.3963	50.9	11,016	378,770	2.3963	47.0	10,176	225,374	2.3963	28.9	7,212	1,064,758	2.3963	44.5	28,404
Since August, 2023 based on withdrawal of NOC by SSGC, Lotte has not been selling any surplus electricity.																				
A. THERMAL (Coal-Imported)																				
1	FFBL Power Company Ltd.	Coal-Imported	52	52	38,568	10.9288	99.7	716.78	36,315	10.9288	93.9	685.16	35,015	10.9288	93.5	663.69	109,898	10.9288	95.7	2,066
Total (Coal-Imported)					38,568	10.9288	99.7	717	36,315	10.9288	93.9	685	35,015	10.9288	93.5	664	109,898	10.9288	95.7	2,066
A. THERMAL (RLNG)																				
1	BQPS-III	RLNG	942	918	542,902	-	79.5	12,179.53	464,326	-	68.0	10,556.33	465,358	-	70.4	10,571	1,472,586	-	72.7	33,307
Total (RLNG)					542,902	-	79.5	12,180	464,326	-	68.0	10,556	465,358	-	70.4	10,571	1,472,586	-	72.7	33,307
A. THERMAL (RFO)																				
1	BQPS-I	RFO	840	730	179,689	-	33.1	7,675.70	21,971	-	4.0	1,041.48	28,398	-	5.4	1,289.14	230,058	-	14.3	10,006
2	Gul Ahmed Energy Ltd.	RFO	136	128	39,203	-	41.2	1,378.15	10,704	-	11.2	376.86	10,746	-	11.7	364.92	60,653	-	21.5	2,120
Total (RFO)					218,892	-	34.3	9054	32,675	-	5.1	1418	39,144	-	6.3	1654	290,711	-	15.3	12,126

As per KE:

1. KE's fuel cost is provisional and subject to the approval of adjustment of Part Load, Degradation and Start ups, etc.
2. KE's Variable O&M is provisional.
3. IPPs Fuel Cost for Nov 2024 and Dec 2024 is provisional.
4. IPPs Variable O&M is provisional.
5. Tariff Adjusted refers to the reference tariff that has been adjusted/revised by NEPRA for the respective quarter.

Key Performance Parameters of Power Plants in KE System (Renewable)																								
Sr. No	Plant Name	Fuel Type	Inst. Capacity		Ref. Capacity	Jul-24			Aug-24			Sep-24			July-Sep			Energy Cost Rs. Million						
			MW	MW		Net Generation MWh	Tariff Adjusted Rs./kWh	Utilization Factor %	NPMV MWh	Energy Cost Rs. Million	Net Generation MWh	Tariff Adjusted Rs./kWh	Utilization Factor %	NPMV MWh	Energy Cost Rs. Million	Net Generation MWh	Tariff Adjusted Rs./kWh		Utilization Factor %	NPMV MWh				
B. RENEWABLE																								
1	OURSUN Pakistan Ltd.	Solar	50	50		6,237	-	16.8	-	-	5,240	-	14.1	-	-	7,527	-	20.9	-	19,004	-	17.2	-	-
2	Gharo Solar Ltd.	Solar	50	50		6,742	-	18.1	-	-	5,628	-	15.1	-	-	8,546	-	23.7	-	20,916	-	18.9	-	-
	Total		100	100		12,979	-	17.4	-	-	10,868	-	14.6	-	-	16,073	-	22.3	-	39,920	-	18.1	-	-

Details of EPP, CPP and Other Supplemental Charges

Sr. No.	Plant Name	Reference Capacity	October-December, 2024					
			Net Generation	Tariff Adjusted	Utilization Factor	CPP	EPP	PLAC
THERMAL (Gas)		MW	MWh	Rs./kW/h	%	Rs. Million	Rs. Million	Rs. Million
1	Guddu	-	-	-	-	-	-	-
2	Guddu 747	721	512702	1.94	32.2	230	6,145	-
3	Engro Powergen Qadirpur	212	198849	1.67	42.5	535	2,251	370
4	Liberty Daharki Power	212	246884	1.67	52.7	1,193	7,227	-
5	Uch-II Power	372	606633	6.63	73.9	6,713	8,759	393
6	Foundation Power Daharki	168	279996	6.63	75.5	568	2,802	226
7	Uch Power	547	798715	2.20	66.1	2,172	11,390	-
	Total	2232	2643779		53.7	10,951	38,574	989
THERMAL (Coal-Local)								
1	Thar Energy	300	367799	11.83*	55.5	8,728	5,841	-
2	Engro Powergen Thar	603	1010566	11.34*	75.9	14,817	13,188	-
3	Thar Coal Block-1	1230	1572277	11.65*	57.9	31,629	23,566	-
4	ThalNova Power Thar	303	370551	11.77*	55.4	9,160	5,856	-
	Total	2436	3321192		61.7	64,334	48,450	-
THERMAL (Coal-Imported)								
1	China Power Hub Generation	1249	133345	11.77	4.8	32,354	2,552	41
2	Lucky Electric Power Company	605	229539	9.42	17.2	12,103	3,468	-
3	Port Qasim Electric Power	1243	725714	10.15	26.4	29,730	11,189	670
4	Huaneng Shandong Ruyi Energy	1244	373769	9.96	13.6	28,850	7,600	116
	Total	4341	1462367		15.3	103,038	24,809	828
THERMAL (RLNG)								
1	Rousch Pak Power	395	885	-	0.1	8,794	-	-
2	Fauji Kabirwala Power	151	0	-	-	761	-	-
3	Saif Power	204	14800	1.92	3.3	804	448	30
4	Punjab Thermal Power	1243	207266	-	7.6	3,649	5,047	682
5	Sapphire Electric Company	202	0	1.93	-	428	-	-
6	Halmore Power Generation	200	12006	2.54	2.7	1,041	332	20
7	Orient Power Company	203	24467	2.36	5.5	914	674	49
8	Nandipur	500	28016	2.41	2.5	1,587	746	-
9	Bhikki	1163	1097606	2.91	42.7	11,613	25,566	1,798
10	Balloki	1165	1569439	2.84	61.0	4,785	35,853	2,184
11	Haveli Bahadur Shah	1172	1569323	3.01	60.6	4,568	36,257	2,604
	Total	6598	4523806		31.1	38,943	104,922	7,367
THERMAL (RFO)								
1	TPS M/Garh	450	-	-	-	756	-	-
2	TPS Jamshoro	300	-	-	-	410	-	-
3	Lalpir Power	350	0	-	-	0	-	-
4	Saba Power Company	125	0	-	-	-	-	-
5	Pak Gen Power	350	0	-	-	2,471	-	-
6	The Hub Power Company	1200	0	-	-	1,969	-	-
7	Nishat Chunian Power	196	395	1.96	0.1	996	14	-
8	Narowal Energy	214	238	2.53	0.1	1,217	8	-
9	Atlas Power	214	0	-	-	3,944	-	-
10	Liberty Power Tech	196	43	2.17	0.0	1,011	1	-
11	Nishat Power	195	1842	1.93	0.4	1,001	60	3
12	Attock Gen.	156	1335	2.08	0.4	956	43	3
13	Kohinoor Energy	124	783	-	0.3	817	25	-
	Total	4070	4637		0.1	3,723	151	6
NUCLEAR								
1	Chashma Nuclear-II	315	664173	6.83	95.5	4,226	1,381	-
2	Karachi Nuclear-3	1040	758281	11.11	33.0	37,512	1,183	-
3	Chashma Nuclear-IV	315	665405	16.65	95.7	11,695	1,127	-
4	Karachi Nuclear-2	1040	2041858	10.40	88.9	23,196	3,274	-
5	Chashma Nuclear-III	315	372126	16.73	53.5	11,569	640	-
6	Chashma Nuclear-I	301	660399	6.33	99.4	5,187	947	-
	Total	3326	5162242		70.3	93,386	8,552	-

Note:

1. The Part Load Adjustment Charges for a few plants are yet to be finalized.

2. Tariff Adjusted refers to the reference tariff that has been adjusted/revised by NEPRA for the respective quarter.

*Tariff Adjusted of Local Coal Power Plants is in Rs./kWh.

3. As per CPPA-G:

a. HUBCO, Lalpir, Saba Power, Rousch Power & Atlas Power PPA has been terminated on 30-09-2024.

b. For Chashma Nuclear Plant I-IV, CPP amounts also include IRSA Levy amounts on claim basis.

4. The data pertaining to Net Generation, EPP and PLAC has been sourced from the Monthly Energy Purchase Data submitted by CPPA-G.

5. The data pertaining to CPP has been provided by CPPA-G.

6. The data pertaining to CPP, as mentioned in the above table, for TPS Muzaffargarh, Nandipur CCPP, Balloki, Haveli Bahadur Shah, and C1-C4 is provisional, as provided by CPPA-G. As per CPPA-G, the actual CPP for TPS Muzaffargarh, Nandipur CCPP, NPPMCL, and C1-C4 billed to DISCOs after previous adjustments is approximately Rs. 854 million, Rs. 2,464 million, Rs. 13,908 million, and Rs. 34,011 million, respectively.

Details of EPP, CPP and Other Supplemental Charges

Sr. No.	Plant Name	Reference Capacity	October, 2024					
			Net Generation	Tariff Adjusted	Utilization Factor	CPP	EPP	PLAC
THERMAL (Gas)		MW	MWh	Rs./kW/h	%	Rs. Million	Rs. Million	Rs. Million
1	Guddu	-	-	-	-	155	-	-
2	Guddu 747	721	164,651	1.94	30.7	-	1,973	-
3	Engro Powergen Qadirpur	212	60,558	1.67	38.3	172	674	77
4	Liberty Daharki Power	212	102,120	1.67	64.7	418	2,870	-
5	Uch-II Power	372	250,949	6.63	90.7	2,763	3,592	130
6	Foundation Power Daharki	168	109,395	6.63	87.3	161	1,065	44
7	Uch Power	547	138,264	2.20	34.0	647	2,365	-
	Total	2232	825937		49.7	4,006	12,540	251
THERMAL (Coal-Local)								
1	Thar Energy	300	195,760	11.83*	87.7	3,837	2,363	-
2	Engro Powergen Thar	603	428,046	11.34*	95.3	4,734	4,903	-
3	Thar Coal Block-1	1230	857,732	11.65*	93.7	10,720	9,585	-
4	ThalNova Power Thar	303	36,708	11.77*	16.3	3,846	1,458	-
	Total	2436	1518247		83.8	23,137	18,310	-
THERMAL (Coal-Imported)								
1	China Power Hub Generation	1249	133,345	11.77	14.3	11,213	2,552	41
2	Lucky Electric Power Company	605	151,155	9.42	33.6	5,588	2,461	-
3	Port Qasim Electric Power	1243	330,480	10.15	35.7	10,365	4,968	281
4	Huaneng Shandong Ruyi Energy	1244	287,568	9.96	31.1	8,899	5,671	53
	Total	4341	902548		27.9	36,065	15,653	375
THERMAL (RLNG)								
1	Rousch Pak Power	395	-	-	-	-	-	-
2	Fauji Kabirwala Power	151	-	-	-	254	-	-
3	Saif Power	204	14,800	1.92	9.8	267	448	30
4	Punjab Thermal Power	1243	152,587	-	16.5	593	3,672	458
5	Sapphire Electric Company	202	-	1.93	-	197	-	-
6	Halmore Power Generation	200	12,006	2.54	8.1	374	332	20
7	Orient Power Company	203	24,467	2.36	16.2	224	674	49
8	Nandipur	500	28,016	2.41	7.5	-	746	-
9	Bhikki	1163	679,196	2.91	78.5	4,831	15,613	1,043
10	Balloki	1165	708,770	2.84	81.8	-	16,005	929
11	Haveli Bahadur Shah	1172	382,776	3.01	43.9	-	8,679	586
	Total	6598	2002618		40.8	6,346	46,169	3,116
THERMAL (RFO)								
1	TPS M/Garh	450	-	-	-	255	-	-
2	TPS Jamshoro	300	-	-	-	137	-	-
3	Lalpir Power	350	-	-	-	0	-	-
4	Saba Power Company	125	-	-	-	-	-	-
5	Pak Gen Power	350	-	-	-	728	-	-
6	The Hub Power Company	1200	-	-	-	649	-	-
7	Nishat Chunian Power	196	-	1.96	-	243	-	-
8	Narowal Energy	214	-	2.53	-	192	-	-
9	Atlas Power	214	-	-	-	4,018	-	-
10	Liberty Power Tech	196	-	2.17	-	233	-	-
11	Nishat Power	195	1,205	1.93	0.8	285	39	3
12	Attock Gen.	156	795	2.08	0.7	266	25	2
13	Kohinoor Energy	124	-	-	-	424	-	-
	Total	4070	2,000		0.1	608	64	5
NUCLEAR								
1	Chashma Nuclear-II	315	229,747	6.83	98.0	1,221	478	-
2	Karachi Nuclear-3	1040	-	11.11	-	15,685	-	-
3	Chashma Nuclear-IV	315	233,435	16.65	99.6	3,991	395	-
4	Karachi Nuclear-2	1040	707,483	10.40	91.4	7,967	904	-
5	Chashma Nuclear-III	315	49,811	16.73	21.3	3,887	86	-
6	Chashma Nuclear-I	301	221,462	6.33	98.9	1,737	318	-
	Total	3326	1441938		58.3	34,488	2,181	-

Note:

1. The Part Load Adjustment Charges for a few plants are yet to be finalized.

2. Tariff Adjusted refers to the reference tariff that has been adjusted/revised by NEPRA for the respective quarter.

*Tariff Adjusted of Local Coal Power Plants is in Rs./kWh.

3. As per CPPA-G:

a. HUBCO, Lalpir, Saba Power, Rousch Power & Atlas Power PPA has been terminated on 30-09-2024.

b. For Chashma Nuclear Plant I-IV, CPP amounts also include IRSA Levy amounts on claim basis.

c. UCH CPP for October-2024 includes excise duty of Rs.10 M for Oct-2024.

4. The data pertaining to Net Generation, EPP and PLAC has been sourced from the Monthly Energy Purchase Data submitted by CPPA-G.

5. The data pertaining to CPP has been provided by CPPA-G.

Details of EPP, CPP and Other Supplemental Charges

Sr. No.	Plant Name	Reference Capacity	November, 2024					
			Net Generation	Tariff Adjusted	Utilization Factor	CPP	EPP	PLAC
THERMAL (Gas)		MW	MWh	Rs./kW/h	%	Rs. Million	Rs. Million	Rs. Million
1	Guddu	-	-	-	-	66	-	-
2	Guddu 747	721	151,508	1.94	28.3		1,816	-
3	Engro Powergen Qadirpur	212	70,364	1.67	44.4	134	793	101
4	Liberty Daharki Power	212	62,892	1.67	39.9	358	1,939	-
5	Uch-II Power	372	183,812	6.63	66.3	1,934	2,669	134
6	Foundation Power Daharki	168	79,480	6.63	62.0	146	808	83
7	Uch Power	547	309,969	2.20	76.2	680	4,273	-
	Total	2232	858025		51.7	3,317	12,298	317
THERMAL (Coal-Local)								
1	Thar Energy	300	162,149	11.83*	72.6	2,622	2,172	-
2	Engro Powergen Thar	603	382,517	11.34*	85.3	4,778	4,579	-
3	Thar Coal Block-1	1230	302,297	11.65*	8.6	10,888	6,630	-
4	ThalNova Power Thar	303	171,699	11.77*	76.2	2,626	2,226	-
	Total	2436	1018662		56.2	20,914	15,606	-
THERMAL (Coal-Imported)								
1	China Power Hub Generation	1249		11.77	-	10,528	-	-
2	Lucky Electric Power Company	605	78,383	9.42	17.4	4,203	1,006	-
3	Port Qasim Electric Power	1243	395,234	10.15	42.7	9,550	6,220	389
4	Huaneng Shandong Ruyi Energy	1244	3,363	9.96	0.4	9,123	77	5
	Total	4341	476981		14.8	33,404	7,304	395
THERMAL (RLNG)								
1	Rousch Pak Power	395	-	-	-	8,794	-	-
2	Fauji Kabirwala Power	151	-	-	-	254	-	-
3	Saif Power	204	-	1.92	-	280	-	-
4	Punjab Thermal Power	1243	-	-	-	2,440	-	-
5	Sapphire Electric Company	202	-	1.93	-	340	-	-
6	Halmore Power Generation	200	-	2.54	-	252	-	-
7	Orient Power Company	203	-	2.36	-	268	-	-
8	Nandipur	500	-	2.41	-	780	-	-
9	Bhikki	1163	157,380	2.91	18.2	4,070	-	231
10	Balloki	1165	268,059	2.84	30.9	2,327	3,762	414
11	Haveli Bahadur Shah	1172	481,072	3.01	55.2	2,327	6,288	900
	Total	6598	906510		18.5	22,134	11,346	1,545
THERMAL (RFO)								
1	TPS M/Garh	450	-	-	-	247	-	-
2	TPS Jamshoro	300	-	-	-	137	-	-
3	Lalpir Power	350	-	-	-	-	-	-
4	Saba Power Company	125	-	-	-	-	-	-
5	Pak Gen Power	350	-	-	-	1,016	-	-
6	The Hub Power Company	1200	-	-	-	14	-	-
7	Nishat Chunian Power	196	-	1.96	-	438	-	-
8	Narowal Energy	214	-	2.53	-	364	-	-
9	Atlas Power	214	-	-	-	76	-	-
10	Liberty Power Tech	196	-	2.17	-	316	-	-
11	Nishat Power	195	-	1.93	-	337	-	-
12	Attock Gen.	156	-	2.08	-	223	-	-
13	Kohinoor Energy	124	-	-	-	205	-	-
	Total	4070	-	-	-	3,344	-	-
NUCLEAR								
1	Chashma Nuclear-II	315	217,690	6.83	92.9	1,182	453	-
2	Karachi Nuclear-3	1040	200,774	11.11	25.9	15,337	313	-
3	Chashma Nuclear-IV	315	215,673	16.65	92.0	3,806	365	-
4	Karachi Nuclear-2	1040	700,416	10.40	90.5	7,256	1,244	-
5	Chashma Nuclear-III	315	105,765	16.73	45.1	3,762	182	-
6	Chashma Nuclear-I	301	214,886	6.33	96.0	1,687	308	-
	Total	3326	1655204		66.9	33,029	2,865	-

Note:

- The Part Load Adjustment Charges for a few plants are yet to be finalized.
- Tariff Adjusted refers to the reference tariff that has been adjusted/revised by NEPRA for the respective quarter.
- *Tariff Adjusted of Local Coal Power Plants is in Rs./kWh.
- As per CPPA-G:
 - HUBCO, Lalpir, Saba Power, Rousch Power & Atlas Power PPA has been terminated on 30-09-2024.
 - For Chashma Nuclear Plant I-IV, CPP amounts also include IRSA Levy amounts on claim basis.
- The data pertaining to Net Generation, EPP and PLAC has been sourced from the Monthly Energy Purchase Data submitted by CPPA-G.
- The data pertaining to CPP has been provided by CPPA-G.

Details of EPP, CPP and Other Supplemental Charges

Sr. No.	Plant Name	Reference Capacity	December, 2024					
			Net Generation	Tariff Adjusted	Utilization Factor	CPP	EPP	PLAC
THERMAL (Gas)		MW	MWh	Rs./kW/h	%	Rs. Million	Rs. Million	Rs. Million
1	Guddu	-	-	-	-	-	-	-
2	Guddu 747	721	196,543	1.94	37.9	141	2,356	-
3	Engro Powergen Qadirpur	212	67,927	1.67	44.5	230	784	192
4	Liberty Daharki Power	212	81,872	1.67	53.6	418	2,417	-
5	Uch-II Power	372	171,871	6.63	64.2	2,016	2,499	128
6	Foundation Power Daharki	168	91,122	6.63	75.3	260	929	100
7	Uch Power	547	350,482	2.20	89.0	845	4,752	-
	Total	2232	959817		59.7	3,628	13,736	421
THERMAL (Coal-Local)								
1	Thar Energy	300	9,890	11.83*	4.6	2,270	1,306	-
2	Engro Powergen Thar	603	200,002	11.34*	46.1	5,305	3,706	-
3	Thar Coal Block-1	1230	412,248	11.65*	46.6	10,020	7,351	-
4	ThalNova Power Thar	303	162,144	11.77*	74.3	2,688	2,171	-
	Total	2436	784,284		44.7	20,283	14,534	-
THERMAL (Coal-Imported)								
1	China Power Hub Generation	1249	-	11.77	-	10,613	-	-
2	Lucky Electric Power Company	605	-	9.42	-	2,312	-	-
3	Port Qasim Electric Power	1243	-	10.15	-	9,815	-	-
4	Huaneng Shandong Ruyi Energy	1244	82,838	9.96	9.2	10,829	1,852	58
	Total	4341	82,838		2.7	33,569	1,852	58
THERMAL (RLNG)								
1	Rousch Pak Power	395	85	-	-	-	-	-
2	Fauji Kabirwala Power	151	-	-	-	254	-	-
3	Saif Power	204	-	1.92	-	257	-	-
4	Punjab Thermal Power	1243	54,679	-	6.1	616	1,375	224
5	Sapphire Electric Company	202	-	1.93	-	285	-	-
6	Halmore Power Generation	200	-	2.54	-	414	-	-
7	Orient Power Company	203	-	2.36	-	422	-	-
8	Nandipur	500	-	2.41	-	806	-	-
9	Bhikki	1163	261,030	2.91	31.2	2,711	6,190	523
10	Balloki	1165	592,610	2.84	70.6	2,458	13,560	840
11	Haveli Bahadur Shah	1172	705,475	3.01	83.6	2,241	16,231	1,117
	Total	6598	1614678		34.0	10,464	37,357	2,705
THERMAL (RFO)								
1	TPS M/Garh	450	-	-	-	255	-	-
2	TPS Jamshoro	300	-	-	-	137	-	-
3	Lalpir Power	350	-	-	-	-	-	-
4	Saba Power Company	125	-	-	-	-	-	-
5	Pak Gen Power	350	-	-	-	728	-	-
6	The Hub Power Company	1200	-	-	-	2,604	-	-
7	Nishat Chunian Power	196	395	1.96	0.3	315	14	-
8	Narowal Energy	214	238	2.53	0.2	661	8	-
9	Atlas Power	214	-	-	-	2	-	-
10	Liberty Power Tech	196	43	2.17	0.0	462	1	-
11	Nishat Power	195	637	1.93	0.5	379	21	-
12	Attock Gen.	156	540	2.08	0.5	467	17	1
13	Kohinoor Energy	124	783	-	0.9	189	25	-
	Total	4070	2,637		0.1	986	87	1
NUCLEAR								
1	Chashma Nuclear-II	315	216,736	6.83	95.6	1,823	451	-
2	Karachi Nuclear-3	1040	557,507	11.11	74.5	6,491	870	-
3	Chashma Nuclear-IV	315	216,297	16.65	95.4	3,899	366	-
4	Karachi Nuclear-2	1040	633,959	10.40	84.7	7,973	1,126	-
5	Chashma Nuclear-III	315	216,550	16.73	95.5	3,919	373	-
6	Chashma Nuclear-I	301	224,051	6.33	103.4	1,764	321	-
	Total	3326	2065100		86.2	25,868	3,507	-

Note:

1. The Part Load Adjustment Charges for a few plants are yet to be finalized.

2. Tariff Adjusted refers to the reference tariff that has been adjusted/revised by NEPRA for the respective quarter.

*Tariff Adjusted of Local Coal Power Plants is in Rs./kWh.

3. As per CPPA-G:

a. HUBCO, Lalpir, Saba Power, Rousch Power & Atlas Power PPA has been terminated on 30-09-2024.

b. For Chashma Nuclear Plant I-IV, CPP amounts also include IRSA Levy amounts on claim basis.

4. The data pertaining to Net Generation, EPP and PLAC has been sourced from the Monthly Energy Purchase Data submitted by CPPA-G.

5. The data pertaining to CPP has been provided by CPPA-G.

6. Energy of approximately 40,793,240 kWh and the corresponding EPP amounting to Rs. 547,261,711 have been reported for the month of December 2024 in the Monthly Energy Purchase Data by CPPA-G in respect of Jamshoro Coal (Imported Coal).

Details of EPP, CPP and Other Supplemental Charges

S. No.	Plant Name	Entity	Inst. Capacity	Ref. Capacity	October-December, 2024				
					Net Generation	Tariff Adjusted	Utilization Factor	CPP	EPP
							%	Rs. Million	Rs. Million
C. HYDEL			MW	MW	MWh				
1	Gomal Zam	WAPDA	17	17	11,594	Rs. 5085/kW/M	30.9	144	14
2	Jinnah Hydel Power Station	WAPDA	96	36	46,993	Rs. 1798/kW/M	59.1	604	20
3	Chitral Hydel Power Station	WAPDA	1	1	497	Rs. 7241/kW/M	22.5	45	1
4	Renala	WAPDA	1	1	384	Rs. 5632/kW/M	17.4	33	1
5	Golen Gol	WAPDA	108	108	30,320	Rs. 3465/kW/M	12.7	2,716	48
6	Rasul Hydel Power Station	WAPDA	22	22	10,329	Rs. 1272/kW/M	21.3	141	2
7	Shadiwal Power Station	WAPDA	14	14	11,154	Rs. 1528/kW/M	36.1	114	3
8	New Bong Escape	Private	84	84	129,027	Rs.14.82/kWh	69.6	2,372	75
9	Chichoki	WAPDA	13	13	4,214	Rs. 1451/kW/M	14.7	96	1
10	Khan Khwar Hydel Power Station	WAPDA	72	72	19,810	Rs. 2062/kW/M	12.5	742	6
11	Malakand-III	PEDO	84	81	32,375	Rs.9.32/kWh	18.1	133	15
12	Gulpur	Private	100	100	6,914	Rs. 13241/kW/M	3.1	4,092	1
13	Nandipur Hydel Power Station	WAPDA	14	14	4,988	Rs. 1661/kW/M	16.1	124	2
14	Dargai	WAPDA	20	20	15,650	Rs. 1426/kW/M	35.4	160	3
15	Mangla Power Station	WAPDA	1,000	1,000	1,588,128	Rs.1017/kW/M	71.9	5,640	170
16	Allai Khwar	WAPDA	121	121	41,142	Rs.1742/kW/M	15.4	890	9
17	Warsak Hydel Power Plant	WAPDA	243	243	144,217	Rs. 1002/kW/M	26.9	1,208	16
18	Karot	Private	720	720	236,973	Rs. 8290/kW/M	14.9	17,272	84
19	Kurram Garhi	WAPDA	4	4	4,915	Rs. 3427/kW/M	55.7	67	3
20	Chashma Hydel Power Station	WAPDA	184	184	268,985	Rs. 1909/kW/M	66.2	1,528	55
21	Patrind	Private	147	147	62,834	Rs. 10094/kW/M	19.4	2,879	7
22	Duber Khwar Hydel Power Station	WAPDA	130	130	21,834	Rs. 2319/kW/M	7.6	1,384	7
23	Daral Khwar Hydro Power Station	PEDO	37	37	15,824	Rs. 8.2683/kWh	19.4	-	3
24	Ghazi Barotha	WAPDA	1,450	1,450	1,779,449	Rs. 911/kW/M	55.6	7,546	130
25	Suki Kinari	Private	884	883	283,216	Rs. 5662/kW/M	14.5	10,307	43
26	Jagran-I	Public	30	30	13,031	Rs. 3.9799/kWh	19.7	-	5
27	Jabban Hydel Power Station	WAPDA	22	22	30,897	Rs. 2870/kW/M	63.6	227	9
28	Tarbela	WAPDA	3,478	3,478	2,174,545	Rs. 590/kW/M	28.3	12,762	86
29	NJHPC	Public	969	969	-	Rs. 9.1184/kWh	-	-	-
30	Tarbela4th Extension Project	WAPDA	1,410	1,410	835,423	Rs. 978/kW/M	26.8	8,838	103
31	Ranolia	PEDO	17	17	-	Rs. 4.1678/kWh	-	-	-
	Total		11,492	11,428	7,825,662		31.0	82,065	922

Note:

1. Tariff Adjusted refers to the tariff that is applicable for the respective quarter.
2. As per CPPA-G, CPP includes other payment as well and the actual CPP of WAPDA HPPs billed to DISCOs after previous adjustments is approximately Rs. 47,281 million.
3. The data pertaining to Net Generation and EPP has been sourced from the Monthly Energy Purchase Data submitted by CPPA-G, except for WAPDA's plants, whose data has been provided separately by CPPA-G.
4. The data pertaining to CPP has been provided by CPPA-G.

October, 2024
Hydel

Details of EPP, CPP and Other Supplemental Charges

S. No.	Plant Name	Entity	Inst. Capacity	Ref. Capacity	October, 2024				
					Net Generation	Tariff Adjusted	Utilization Factor	CPP	EPP
							%	Rs. Million	Rs. Million
C. HYDEL			MW	MW	MWh				
1	Gomal Zam	WAPDA	17	17	4,427	Rs. 5085/kW/M	35.0	49	5
2	Jinnah Hydel Power Station	WAPDA	96	36	13,900	Rs. 1798/kW/M	51.9	199	6
3	Chitral Hydel Power Station	WAPDA	1	1	139	Rs. 7241/kW/M	18.6	15	-
4	Renala	WAPDA	1	1	176	Rs. 5632/kW/M	23.6	11	-
5	Golen Gol	WAPDA	108	108	15,232	Rs. 3465/kW/M	19.0	913	24
6	Rasul Hydel Power Station	WAPDA	22	22	3,324	Rs. 1272/kW/M	20.3	47	1
7	Shadiwal Power Station	WAPDA	14	14	3,803	Rs. 1528/kW/M	36.5	38	1
8	New Bong Escape	Private	84	84	53,917	Rs.14.82/kWh	86.3	1,125	26
9	Chichoki	WAPDA	13	13	2,972	Rs. 1451/kW/M	30.7	34	1
10	Khan Khwar Hydel Power Station	WAPDA	72	72	9,342	Rs. 2062/kW/M	17.4	252	3
11	Malakand-III	PEDO	84	81	8,886	Rs.9.32/kWh	14.7	103	4
12	Gulpur	Private	100	100	6,232	Rs. 13241/kW/M	8.4	2,082	1
13	Nandipur Hydel Power Station	WAPDA	14	14	3,334	Rs. 1661/kW/M	32.0	44	1
14	Dargai	WAPDA	20	20	6,400	Rs. 1426/kW/M	43.0	55	1
15	Mangla Power Station	WAPDA	1,000	1,000	703,020	Rs.1017/kW/M	94.5	2,072	75
16	Allai Khwar	WAPDA	121	121	18,224	Rs.1742/kW/M	20.2	304	4
17	Warsak Hydel Power Plant	WAPDA	243	243	62,883	Rs. 1002/kW/M	34.8	426	7
18	Karot	Private	720	720	101,547	Rs. 8290/kW/M	19.0	7,111	36
19	Kurram Garhi	WAPDA	4	4	1,742	Rs. 3427/kW/M	58.5	23	1
20	Chashma Hydel Power Station	WAPDA	184	184	102,464	Rs. 1909/kW/M	74.8	528	21
21	Patrind	Private	147	147	27,892	Rs. 10094/kW/M	25.5	551	5
22	Duber Khwar Hydel Power Station	WAPDA	130	130	17,899	Rs. 2319/kW/M	18.5	478	6
23	Daral Khwar Hydro Power Station	PEDO	37	37	7,226	Rs. 8.2683/kWh	26.2	-	2
24	Ghazi Barotha	WAPDA	1,450	1,450	652,251	Rs. 911/kW/M	60.5	2,603	48
25	Suki Kinari	Private	884	883	124,757	Rs. 5662/kW/M	19.0	5,509	19
26	Jagran-I	Public	30	30	7,179	Rs. 3.9799/kWh	32.2	-	-
27	Jabban Hydel Power Station	WAPDA	22	22	13,024	Rs. 2870/kW/M	79.6	80	4
28	Tarbela	WAPDA	3,478	3,478	818,943	Rs. 590/kW/M	31.6	4,400	33
29	NJHPC	Public	969	969	-	Rs. 9.1184/kWh	-	-	-
30	Tarbela4th Extension Project	WAPDA	1,410	1,410	396,255	Rs. 978/kW/M	37.8	3,129	49
31	Ranolia	PEDO	17	17	-	Rs. 4.1678/kWh	-	-	-
	Total		11,492	11,428	3,187,387		37.5	32,180	383

Note:

1. Tariff Adjusted refers to the tariff that is applicable for the respective quarter.
2. As per CPPA-G, CPP includes other payment as well and the actual CPP of WAPDA HPPs billed to DISCOs after previous adjustments is approximately Rs. 47,281 million.
3. The data pertaining to Net Generation and EPP has been sourced from the Monthly Energy Purchase Data submitted by CPPA-G, except for WAPDA's plants, whose data has been provided separately by CPPA-G.
4. The data pertaining to CPP has been provided by CPPA-G.

November, 2024
Hydel

Details of EPP, CPP and Other Supplemental Charges

S. No.	Plant Name	Entity	Inst. Capacity	Ref. Capacity	November, 2024				
					Net Generation	Tariff Adjusted	Utilization Factor	CPP	EPP
							%	Rs. Million	Rs. Million
C. HYDEL			MW	MW	MWh				
1	Gomal Zam	WAPDA	17	17	4,307	Rs. 5085/kW/M	34.0	49	5
2	Jinnah Hydel Power Station	WAPDA	96	36	17,254	Rs. 1798/kW/M	64.4	204	7
3	Chitral Hydel Power Station	WAPDA	1	1	161	Rs. 7241/kW/M	21.7	15	-
4	Renala	WAPDA	1	1	115	Rs. 5632/kW/M	15.5	11	-
5	Golen Gol	WAPDA	108	108	9,354	Rs. 3465/kW/M	11.6	904	15
6	Rasul Hydel Power Station	WAPDA	22	22	3,249	Rs. 1272/kW/M	19.8	47	1
7	Shadiwal Power Station	WAPDA	14	14	3,769	Rs. 1528/kW/M	36.2	38	1
8	New Bong Escape	Private	84	84	47,411	Rs.14.82/kWh	75.9	175	23
9	Chichoki	WAPDA	13	13	1,223	Rs. 1451/kW/M	12.6	32	-
10	Khan Khwar Hydel Power Station	WAPDA	72	72	7,610	Rs. 2062/kW/M	14.2	249	2
11	Malakand-III	PEDO	84	81	14,222	Rs.9.32/kWh	23.6	84	7
12	Gulpur	Private	100	100	658	Rs. 13241/kW/M	0.9	1,354	-
13	Nandipur Hydel Power Station	WAPDA	14	14	1,521	Rs. 1661/kW/M	14.6	41	-
14	Dargai	WAPDA	20	20	6,237	Rs. 1426/kW/M	41.9	55	1
15	Mangla Power Station	WAPDA	1,000	1,000	556,503	Rs.1017/kW/M	74.8	1,910	60
16	Allai Khwar	WAPDA	121	121	14,666	Rs.1742/kW/M	16.3	298	3
17	Warsak Hydel Power Plant	WAPDA	243	243	42,021	Rs. 1002/kW/M	23.2	393	5
18	Karot	Private	720	720	75,277	Rs. 8290/kW/M	14.1	8,622	27
19	Kurram Garhi	WAPDA	4	4	1,554	Rs. 3427/kW/M	52.2	22	1
20	Chashma Hydel Power Station	WAPDA	184	184	97,617	Rs. 1909/kW/M	71.3	521	20
21	Patrind	Private	147	147	19,017	Rs. 10094/kW/M	17.4	1,851	1
22	Duber Khwar Hydel Power Station	WAPDA	130	130	31	Rs. 2319/kW/M	0.0	450	-
23	Daral Khwar Hydro Power Station	PEDO	37	37	5,088	Rs. 8.2683/kWh	18.5	-	1
24	Ghazi Barotha	WAPDA	1,450	1,450	685,594	Rs. 911/kW/M	63.6	2,652	50
25	Suki Kinari	Private	884	883	88,935	Rs. 5662/kW/M	13.5	2,416	14
26	Jagran-I	Public	30	30	3,791	Rs. 3.9799/kWh	17.0	-	-
27	Jabban Hydel Power Station	WAPDA	22	22	10,677	Rs. 2870/kW/M	65.2	76	3
28	Tarbela	WAPDA	3,478	3,478	839,332	Rs. 590/kW/M	32.4	4,432	33
29	NJHPC	Public	969	969		Rs. 9.1184/kWh	-	-	-
30	Tarbela4th Extension Project	WAPDA	1,410	1,410	302,864	Rs. 978/kW/M	28.9	2,984	37
31	Ranolia	PEDO	17	17		Rs. 4.1678/kWh	-	-	-
	Total		11,492	11,428	2,859,994		33.6	29,886	318

Note:

1. Tariff Adjusted refers to the tariff that is applicable for the respective quarter.
2. As per CPPA-G, CPP includes other payment as well and the actual CPP of WAPDA HPPs billed to DISCOs after previous adjustments is approximately Rs. 47,281 million.
3. The data pertaining to Net Generation and EPP has been sourced from the Monthly Energy Purchase Data submitted by CPPA-G, except for WAPDA's plants, whose data has been provided separately by CPPA-G.
4. The data pertaining to CPP has been provided by CPPA-G.

December, 2024
Hydel

Details of EPP, CPP and Other Supplemental Charges

S. No.	Plant Name	Entity	Inst. Capacity	Ref. Capacity	December, 2024				
					Net Generation	Tariff Adjusted	Utilization Factor	CPP	EPP
							%	Rs. Million	Rs. Million
C. HYDEL			MW	MW	MWh				
1	Gomal Zam	WAPDA	17	17	2,860	Rs. 5085/kW/M	23.4	46	4
2	Jinnah Hydel Power Station	WAPDA	96	36	15,839	Rs. 1798/kW/M	61.1	201	7
3	Chitral Hydel Power Station	WAPDA	1	1	197	Rs. 7241/kW/M	27.4	15	-
4	Renala	WAPDA	1	1	93	Rs. 5632/kW/M	12.9	11	-
5	Golen Gol	WAPDA	108	108	5,734	Rs. 3465/kW/M	7.4	899	9
6	Rasul Hydel Power Station	WAPDA	22	22	3,756	Rs. 1272/kW/M	23.7	47	1
7	Shadiwal Power Station	WAPDA	14	14	3,583	Rs. 1528/kW/M	35.5	38	1
8	New Bong Escape	Private	84	84	27,699	Rs.14.82/kWh	45.8	1,072	27
9	Chichoki	WAPDA	13	13	19	Rs. 1451/kW/M	0.2	30	-
10	Khan Khwar Hydel Power Station	WAPDA	72	72	2,858	Rs. 2062/kW/M	5.5	241	1
11	Malakand-III	PEDO	84	81	9,267	Rs.9.32/kWh	-	54	4
12	Gulpur	Private	100	100	24	Rs. 13241/kW/M	0.0	656	-
13	Nandipur Hydel Power Station	WAPDA	14	14	133	Rs. 1661/kW/M	1.3	39	-
14	Dargai	WAPDA	20	20	3,013	Rs. 1426/kW/M	20.9	50	1
15	Mangla Power Station	WAPDA	1,000	1,000	328,605	Rs.1017/kW/M	45.6	1,658	35
16	Allai Khwar	WAPDA	121	121	8,253	Rs.1742/kW/M	9.5	288	2
17	Warsak Hydel Power Plant	WAPDA	243	243	39,313	Rs. 1002/kW/M	22.5	389	4
18	Karot	Private	720	720	60,149	Rs. 8290/kW/M	11.6	1,539	21
19	Kurram Garhi	WAPDA	4	4	1,619	Rs. 3427/kW/M	56.2	22	1
20	Chashma Hydel Power Station	WAPDA	184	184	68,904	Rs. 1909/kW/M	52.0	479	14
21	Patrind	Private	147	147	15,925	Rs. 10094/kW/M	15.0	477	1
22	Duber Khwar Hydel Power Station	WAPDA	130	130	3,966	Rs. 2319/kW/M	4.2	456	1
23	Daral Khwar Hydro Power Station	PEDO	37	37	3,509	Rs. 8.2683/kWh	13.2	-	-
24	Ghazi Barotha	WAPDA	1,450	1,450	441,604	Rs. 911/kW/M	42.3	2,291	32
25	Suki Kinari	Private	884	883	69,524	Rs. 5662/kW/M	10.9	2,382	11
26	Jagran-I	Public	30	30	2,062	Rs. 3.9799/kWh	9.5	-	5
27	Jabban Hydel Power Station	WAPDA	22	22	7,197	Rs. 2870/kW/M	45.4	71	2
28	Tarbela	WAPDA	3,478	3,478	516,270	Rs. 590/kW/M	20.6	3,930	20
29	NJHPC	Public	969	969	-	Rs. 9.1184/kWh	-	-	-
30	Tarbela4th Extension Project	WAPDA	1,410	1,410	136,305	Rs. 978/kW/M	13.4	2,725	17
31	Ranolia	PEDO	17	17	-	Rs. 4.1678/kWh	-	-	-
	Total		11,492	11,428	1,778,281		21.6	19,998	221

Note:

1. Tariff Adjusted refers to the tariff that is applicable for the respective quarter.

2. As per CPPA-G, CPP includes other payment as well and the actual CPP of WAPDA HPPs billed to DISCOs after previous adjustments is approximately Rs. 47,281 million.

3. The data pertaining to Net Generation and EPP has been sourced from the Monthly Energy Purchase Data submitted by CPPA-G, except for WAPDA's plants, whose data has been provided separately by CPPA-G.

4. The data pertaining to CPP has been provided by CPPA-G.

October-December, 2024
Renewable

Details of EPP, CPP and Other Supplemental Charges

S. No.	Plant Name	Fuel Type	Inst. Capacity (MW)	Ref. Capacity (MW)	October-December, 2024					
					Net Generation (MWh)	Tariff Adjusted (Rs./kWh)	Utilization Factor (%)	CPP (Rs.Million)	NPMV (MWh)	NPMV Amount (Rs.Million)
D. RENEWABLE (Wind)										
1	Sapphire Wind Power Company	Wind	53	50	10,195	45.64	9.2	607	2,912	133
2	FFC Energy	Wind	50	50	11,327	13.14	10.3	330	43	1
3	Gul Ahmed Wind Power	Wind	50	50	12,215	41.17	11.1	636	2,894	119
4	Yunus Energy	Wind	50	50	12,071	35.45	10.9	531	2,898	103
5	UEP Wind Power	Wind	99	99	20,864	47.15	9.5	1,487	4,832	228
6	Master Wind Energy	Wind	50	50	11,177	41.17	10.1	569	2,794	115
7	Three Gorges Second Wind Farm Pakistan	Wind	50	50	12,188	36.90	11.0	737	3,070	115
8	Three Gorges Third Wind Farm Pakistan	Wind	50	50	12,890	37.00	11.7	751	3,178	117
9	Zorlu Enerji Pakistan	Wind	56	56	14,223	19.14	11.5	533	45	1
10	Three Gorges First Wind Farm Pakistan	Wind	50	50	12,921	16.96	11.7	446	27	0
11	Hydrochina Dawood Power	Wind	50	50	18,944	47.15	17.2	658	2,286	108
12	Sachal Energy Development	Wind	50	50	15,112	43.83	13.7	655	-	-
13	Tenaga Generasi	Wind	50	50	11,057	43.91	10.0	577	2,214	97
14	Hawa Energy	Wind	50	50	17,405	36.26	15.8	755	3,421	124
15	Metro Power Company	Wind	50	50	17,947	35.22	16.3	425	32	1
16	ACT Wind	Wind	30	30	10,457	29.85	15.8	296	2,903	3
17	Jhimpir Power	Wind	50	50	15,637	36.26	14.2	687	3,312	120
18	Foundation Wind Energy-I	Wind	50	50	11,185	40.42	10.1	491	-	-
19	Liberty Wind Power-I	Wind	50	50	16,035	13.98	14.5	273	3,548	50
20	DIN Energy	Wind	50	50	17,686	14.01	16.0	298	3,603	51
21	Tricon Boston-C	Wind	50	50	15,812	37.00	14.3	-	3,184	118
22	Tricon Boston-B	Wind	50	50	15,259	37.00	13.8	-	3,024	112
23	Foundation Wind Energy-II	Wind	50	50	14,459	21.33	13.1	368	182	6
24	Liberty Wind Power-II	Wind	50	50	15,793	13.98	14.3	266	3,297	46
25	Master Green Energy	Wind	50	50	15,704	13.98	14.2	271	3,566	51
26	Artistic Wind Power	Wind	50	50	17,167	13.85	15.5	317	3,529	49
27	Tricon Boston-A	Wind	50	50	15,139	37.14	13.7	1,952	2,863	106
28	Lakeside Energy	Wind	50	50	17,043	13.76	15.4	297	3,655	50
29	Lucky Renewables	Wind	50	50	17,156	14.44	15.5	289	3,463	50
30	NASDA Green Energy	Wind	50	50	20,717	13.79	18.8	291	3,596	50
31	Gul Ahmed Electric	Wind	50	50	18,312	13.80	16.6	376	3,500	48
32	ACT2 DIN Wind	Wind	50	50	16,657	13.85	15.1	283	3,272	45
33	Indus Wind Energy	Wind	50	50	18,281	14.04	16.6	369	3,508	49
34	Zephyr Power	Wind	50	50	9,811	32.71	8.9	1,211	262	9
35	Artistic Energy	Wind	50	50	23,117	20.54	20.9	610	383	8
36	Metro Wind Power	Wind	60	60	24,963	16.73	18.8	488	4,201	70
	Total		1,848.00	1845	556,927		13.7	19,131	89,499	2,355
D. RENEWABLE (Solar)										
1	AJ Power	Solar	12	12	2,717	29.02	10.3	131	3	0
2	Quaid E Azam Solar	Solar	100	96	24,530	30.02	11.6	1,429	-	-
3	Best Green Energy Pakistan	Solar	100	96	25,888	47.92	12.2	1,730	-	-
4	Appolo Solar Development Pakistan	Solar	100	96	25,926	45.79	12.2	1,654	-	-
5	Crest Energy Pakistan	Solar	100	96	26,204	48.34	12.4	1,766	-	-
6	Harappa Solar	Solar	18	18	3,974	29.28	10.0	161	103	2
7	Atlas Solar	Solar	100	100	25,583	13.27	11.6	601	160	2
8	HNDS Energy	Solar	50	50	-	-	-	134	101	1
9	Helios Power	Solar	50	50	-	11.20	-	135	99	1
10	Meridian Energy	Solar	50	50	-	-	-	135	100	1
	Total		680	664	134,822		9.2	7,875	566	7

Note:

1. Tariff Adjusted refers to the reference tariff that has been adjusted/revised by NEPRA for the respective quarter.
2. The data pertaining to Net Generation has been sourced from the Monthly Energy Purchase Data submitted by CPPA-G.
3. The data pertaining to CPP and NPMV has been provided by CPPA-G.
4. The CPP of Tricon Boston-A also includes the CPP of Tricon Boston-B and Tricon Boston-C.

October-December, 2024
Renewable

Details of EPP, CPP and Other Supplemental Charges

Sr. No	Plant Name	Fuel Type	Inst. Capacity (MW)	Ref. Capacity (MW)	October-December, 2024				
					Net Generation (MWh)	Tariff Adjusted (Rs./kWh)	Utilization Factor (%)	CPP (Rs.Million)	EPP (Rs.Million)
D. RENEWABLE (Bagasse)									
1	Fatima Energy	Bagasse	119	108	-		-	-	-
2	Hamza Sugar Mills	Bagasse	15	15	27,049	-	-	207	200
3	Chanar Energy	Bagasse	22	22	2,810	9.06	-	22	21
4	Thal Industries Corporation	Bagasse	20	20	15,630	9.35	-	122	115
5	Almoiz Industries	Bagasse	36	36	4,960	9.19	0.0	551	37
6	RYK Mills	Bagasse	40	24	15,611	9.35	17.3	114	115
7	Chiniot Power	Bagasse	63	63	46,610	8.70	22.3	391	352
8	JDW-III	Bagasse	27	24	45,748	9.94	74.0	116	317
9	JDW-II	Bagasse	26	24	45,138	8.70	90.6	85	314
	Total		368	336	203,556	8.70	27.4	505	1,470

Note:

1. Tariff Adjusted refers to the reference tariff that has been adjusted/revised by NEPRA for the respective quarter.
2. The data pertaining to Net Generation and EPP has been sourced from the Monthly Energy Purchase Data submitted by CPPA-G.
3. The data pertaining to CPP has been provided by CPPA-G.

October, 2024
Renewable

Details of EPP, CPP and Other Supplemental Charges

S. No.	Plant Name	Fuel Type	Inst. Capacity (MW)	Ref. Capacity (MW)	October, 2024					
					Net Generation (MWh)	Tariff Adjusted (Rs./kWh)	Utilization Factor (%)	CPP (Rs.Million)	NPMV (MWh)	NPMV Amount (Rs.Million)
D. RENEWABLE (Wind)										
1	Sapphire Wind Power Company	Wind	53	50	3,309	45.64	8.9	163	202	9
2	FFC Energy	Wind	50	50	2,636	13.14	7.1	242	-	-
3	Gul Ahmed Wind Power	Wind	50	50	3,719	41.17	10.0	171	96	4
4	Yunus Energy	Wind	50	50	3,637	35.45	9.8	133	108	4
5	UEP Wind Power	Wind	99	99	7,751	47.15	10.5	651	209	10
6	Master Wind Energy	Wind	50	50	3,567	41.17	9.6	152	115	5
7	Three Gorges Second Wind Farm Pakistan	Wind	50	50	3,892	36.90	10.5	144	121	4
8	Three Gorges Third Wind Farm Pakistan	Wind	50	50	4,058	37.00	10.9	150	121	4
9	Zorlu Enerji Pakistan	Wind	56	56	4,110	19.14	9.9	436	-	-
10	Three Gorges First Wind Farm Pakistan	Wind	50	50	3,353	16.96	9.0	89	-	-
11	Hydrochina Dawood Power	Wind	50	50	4,774	47.15	12.8	222	104	5
12	Sachal Energy Development	Wind	50	50	3,527	43.83	9.5	116	-	-
13	Tenaga Generasi	Wind	50	50	4,896	43.91	13.2	215	86	4
14	Hawa Energy	Wind	50	50	4,840	36.26	13.0	181	142	5
15	Metro Power Company	Wind	50	50	3,828	35.22	10.3	166	-	-
16	ACT Wind	Wind	30	30	2,578	29.85	11.6	83	-	-
17	Jhimpir Power	Wind	50	50	4,944	36.26	13.3	184	144	5
18	Foundation Wind Energy-I	Wind	50	50	4,386	40.42	11.8	144	-	-
19	Liberty Wind Power-I	Wind	50	50	6,054	13.98	16.3	86	135	2
20	DIN Energy	Wind	50	50	6,152	14.01	16.5	88	137	2
21	Tricon Boston-C	Wind	50	50	5,602	37.00	15.1	-	140	5
22	Tricon Boston-B	Wind	50	50	5,676	37.00	15.3	-	140	5
23	Foundation Wind Energy-II	Wind	50	50	4,847	21.33	13.0	350	-	-
24	Liberty Wind Power-II	Wind	50	50	6,319	13.98	17.0	90	136	2
25	Master Green Energy	Wind	50	50	5,085	13.98	13.7	75	158	2
26	Artistic Wind Power	Wind	50	50	6,425	13.85	17.3	121	132	2
27	Tricon Boston-A	Wind	50	50	6,046	37.14	16.3	659	144	5
28	Lakeside Energy	Wind	50	50	6,444	13.76	17.3	108	158	2
29	Lucky Renewables	Wind	50	50	5,949	14.44	16.0	77	134	2
30	NASDA Green Energy	Wind	50	50	6,639	13.79	17.8	93	160	2
31	Gul Ahmed Electric	Wind	50	50	7,223	13.80	19.4	109	157	2
32	ACT2 DIN Wind	Wind	50	50	6,589	13.85	17.7	93	139	2
33	Indus Wind Energy	Wind	50	50	7,391	14.04	19.9	106	141	2
34	Zephyr Power	Wind	50	50	7,075	32.71	19.0	1,007	160	5
35	Artistic Energy	Wind	50	50	6,555	20.54	17.6	141	-	-
36	Metro Wind Power	Wind	60	60	10,103	16.73	22.6	172	185	3
	Total		1,848.00	1845	189,980.75		13.8	7,015	3,804	106
D. RENEWABLE (Solar)										
1	AJ Power	Solar	12	12	1,521.00	29.02	17.0	44	0	0
2	Quaid E Azam Solar	Solar	100	96	13,905.11	30.02	19.5	418	-	-
3	Best Green Energy Pakistan	Solar	100	96	14,411.80	47.92	20.2	691	-	-
4	Appolo Solar Development Pakistan	Solar	100	96	14,502.64	45.79	20.3	664	-	-
5	Crest Energy Pakistan	Solar	100	96	14,665.79	48.34	20.5	709	-	-
6	Harappa Solar	Solar	18	18	2,367.49	29.28	17.7	63	56	1
7	Atlas Solar	Solar	100	100	14,689.30	13.27	19.7	195	-	-
8	HNDS Energy	Solar	50	50	7,589.86	-	20.4	52	-	-
9	Helios Power	Solar	50	50	7,727.75	11.20	20.8	53	-	-
10	Meridian Energy	Solar	50	50	7,683.95	-	20.7	52	-	-
	Total		680	664	99,064.69		20.1	2,941	57	1

Note:

1. Tariff Adjusted refers to the reference tariff that has been adjusted/revised by NEPRA for the respective quarter.
2. The data pertaining to Net Generation has been sourced from the Monthly Energy Purchase Data submitted by CPPA-G.
3. The data pertaining to CPP and NPMV has been provided by CPPA-G.
4. The CPP of Tricon Boston-A also includes the CPP of Tricon Boston-B and Tricon Boston-C.

October, 2024
Renewable

Details of EPP, CPP and Other Supplemental Charges

Sr. No	Plant Name	Fuel Type	Inst. Capacity (MW)	Ref. Capacity (MW)	October, 2024				
					Net Generation (MWh)	Tariff Adjusted (Rs./kWh)	Utilization Factor (%)	CPP (Rs.Million)	EPP (Rs.Million)
D. RENEWABLE (Bagasse)									
1	Fatima Energy	Bagasse	119	108		-	-		-
2	Hamza Sugar Mills	Bagasse	15	15	8,640	9.06	77.4	66	64
3	Chanar Energy	Bagasse	22	22	-	9.35	-	-	-
4	Thal Industries Corporation	Bagasse	20	20	-	9.19	-	-	-
5	Almoiz Industries	Bagasse	36	36	-	9.35	-	591	-
6	RYK Mills	Bagasse	40	24	-	8.70	-	-	-
7	Chiniot Power	Bagasse	63	63	6,351	9.94	13.5	-	48
8	JDW-III	Bagasse	27	24	17,723	8.70	99.3	26	113
9	JDW-II	Bagasse	26	24	17,551	8.70	98.3	25	107
	Total		368	336	50,264		20.1	- 473	331

Note:

1. Tariff Adjusted refers to the reference tariff that has been adjusted/revised by NEPRA for the respective quarter.
2. The data pertaining to Net Generation and EPP has been sourced from the Monthly Energy Purchase Data submitted by CPPA-G.
3. The data pertaining to CPP has been provided by CPPA-G.

November, 2024
Renewable

Details of EPP, CPP and Other Supplemental Charges

S. No.	Plant Name	Fuel Type	Inst. Capacity (MW)	Ref. Capacity (MW)	November, 2024					
					Net Generation (MWh)	Tariff Adjusted (Rs./kWh)	Utilization Factor (%)	CPP (Rs.Million)	NPMV (MWh)	NPMV Amount (Rs.Million)
D. RENEWABLE (Wind)										
1	Sapphire Wind Power Company	Wind	53	50	1,657	45.64	4.5	85	142	6
2	FFC Energy	Wind	50	50	1,291	13.14	3.5	37	43	1
3	Gul Ahmed Wind Power	Wind	50	50	2,078	41.17	5.6	92	162	7
4	Yunus Energy	Wind	50	50	2,047	35.45	5.5	79	172	6
5	UEP Wind Power	Wind	99	99	3,960	47.15	5.4	199	254	12
6	Master Wind Energy	Wind	50	50	1,727	41.17	4.6	71	160	7
7	Three Gorges Second Wind Farm Pakistan	Wind	50	50	2,157	36.90	5.8	84	193	7
8	Three Gorges Third Wind Farm Pakistan	Wind	50	50	2,330	37.00	6.3	256	202	7
9	Zorlu Enerji Pakistan	Wind	56	56	2,286	19.14	5.5	105	45	1
10	Three Gorges First Wind Farm Pakistan	Wind	50	50	1,951	16.96	5.2	285	27	0
11	Hydrochina Dawood Power	Wind	50	50	9,991	47.15	26.9	142	143	7
12	Sachal Energy Development	Wind	50	50	2,226	43.83	6.0	145	-	-
13	Tenaga Generasi	Wind	50	50	1,455	43.91	3.9	68	164	7
14	Hawa Energy	Wind	50	50	2,870	36.26	7.7	112	209	8
15	Metro Power Company	Wind	50	50	2,337	35.22	6.3	83	32	1
16	ACT Wind	Wind	30	30	1,193	29.85	5.3	70	2	0
17	Jhimpir Power	Wind	50	50	2,828	36.26	7.6	110	199	7
18	Foundation Wind Energy-I	Wind	50	50	1,314	40.42	3.5	168	-	-
19	Liberty Wind Power-I	Wind	50	50	2,924	13.98	7.9	44	225	3
20	DIN Energy	Wind	50	50	2,943	14.01	7.9	44	234	3
21	Tricon Boston-C	Wind	50	50	2,919	37.00	7.8	-	171	6
22	Tricon Boston-B	Wind	50	50	3,039	37.00	8.2	-	168	6
23	Foundation Wind Energy-II	Wind	50	50	1,450	21.33	3.9	166	-	-
24	Liberty Wind Power-II	Wind	50	50	2,987	13.98	8.0	45	219	3
25	Master Green Energy	Wind	50	50	3,603	13.98	9.7	51	200	3
26	Artistic Wind Power	Wind	50	50	3,218	13.85	8.6	48	217	3
27	Tricon Boston-A	Wind	50	50	3,378	37.14	9.1	365	150	6
28	Lakeside Energy	Wind	50	50	3,571	13.76	9.6	48	193	3
29	Lucky Renewables	Wind	50	50	3,643	14.44	9.8	60	213	3
30	NASDA Green Energy	Wind	50	50	3,489	13.79	9.4	51	219	3
31	Gul Ahmed Electric	Wind	50	50	4,262	13.80	11.5	129	202	3
32	ACT2 DIN Wind	Wind	50	50	3,382	13.85	9.1	97	234	3
33	Indus Wind Energy	Wind	50	50	3,732	14.04	10.0	108	222	3
34	Zephyr Power	Wind	50	50	2,737	32.71	7.4	67	102	3
35	Artistic Energy	Wind	50	50	3,449	20.54	9.3	74	10	0
36	Metro Wind Power	Wind	60	60	6,131	16.73	13.7	107	236	4
	Total		1,848.00	1845	106,555		7.8	3,360	5,363	143
D. RENEWABLE (Solar)										
1	AJ Power	Solar	12	12	-	29.02	-	52	1	0
2	Quaid E Azam Solar	Solar	100	96	5	30.02	0.0	342	-	-
3	Best Green Energy Pakistan	Solar	100	96	6	47.92	0.0	489	-	-
4	Appolo Solar Development Pakistan	Solar	100	96	15	45.79	0.0	467	-	-
5	Crest Energy Pakistan	Solar	100	96	5	48.34	0.0	500	-	-
6	Harappa Solar	Solar	18	18	43	29.28	0.3	55	47	1
7	Atlas Solar	Solar	100	100	-	13.27	-	254	160	2
8	HNDS Energy	Solar	50	50	-	-	-	41	-	-
9	Helios Power	Solar	50	50	-	11.20	-	42	-	-
10	Meridian Energy	Solar	50	50	-	-	-	42	-	-
	Total		680	664	73		0.0	2,284	208	4

Note:

1. Tariff Adjusted refers to the reference tariff that has been adjusted/revised by NEPRA for the respective quarter.
2. The data pertaining to Net Generation has been sourced from the Monthly Energy Purchase Data submitted by CPPA-G.
3. The data pertaining to CPP and NPMV has been provided by CPPA-G.
4. The CPP of Tricon Boston-A also includes the CPP of Tricon Boston-B and Tricon Boston-C.

November, 2024
Renewable

Details of EPP, CPP and Other Supplemental Charges

Sr. No	Plant Name	Fuel Type	Inst. Capacity (MW)	Ref. Capacity (MW)	November, 2024				
					Net Generation (MWh)	Tariff Adjusted (Rs./kWh)	Utilization Factor (%)	CPP (Rs.Million)	EPP (Rs.Million)
D. RENEWABLE (Bagasse)									
1	Fatima Energy	Bagasse	119	108		-	-		
2	Hamza Sugar Mills	Bagasse	15	15	8,770	9.06	78.6	67	65
3	Chanar Energy	Bagasse	22	22	62	9.35	0.4	0	-
4	Thal Industries Corporation	Bagasse	20	20	2,185	9.19	14.7	33	16
5	Almoiz Industries	Bagasse	36	36	842	9.35	3.1	7	6
6	RYK Mills	Bagasse	40	24	1,616	8.70	9.1	12	12
7	Chiniot Power	Bagasse	63	63	13,957	9.94	29.8	170	105
8	JDW-III	Bagasse	27	24	12,566	8.70	70.4	40	90
9	JDW-II	Bagasse	26	24	12,228	8.70	68.5	39	93
	Total		368	336	52,226		20.9	369	388

Note:

1. Tariff Adjusted refers to the reference tariff that has been adjusted/revised by NEPRA for the respective quarter.
2. The data pertaining to Net Generation and EPP has been sourced from the Monthly Energy Purchase Data submitted by CPPA-G.
3. The data pertaining to CPP has been provided by CPPA-G.

December, 2024
Renewable

Details of EPP, CPP and Other Supplemental Charges

S. No.	Plant Name	Fuel Type	Inst. Capacity (MW)	Ref. Capacity (MW)	December, 2024					
					Net Generation (MWh)	Tariff Adjusted (Rs./kWh)	Utilization Factor	CPP (Rs.Million)	NPMV (MWh)	NPMV Amount (Rs.Million)
D. RENEWABLE (Wind)										
1	Sapphire Wind Power Company	Wind	53	50	5,229	45.64	14.5	359	2,568	117
2	FFC Energy	Wind	50	50	7,400	13.14	20.6	51	-	-
3	Gul Ahmed Wind Power	Wind	50	50	6,418	41.17	17.8	373	2,636	109
4	Yunus Energy	Wind	50	50	6,387	35.45	17.7	319	2,619	93
5	UEP Wind Power	Wind	99	99	9,152	47.15	12.8	638	4,369	206
6	Master Wind Energy	Wind	50	50	5,883	41.17	16.3	346	2,519	104
7	Three Gorges Second Wind Farm Pakistan	Wind	50	50	6,139	36.90	17.1	510	2,756	103
8	Three Gorges Third Wind Farm Pakistan	Wind	50	50	6,503	37.00	18.1	345	2,854	105
9	Zorlu Enerji Pakistan	Wind	56	56	7,827	19.14	19.4	7	-	-
10	Three Gorges First Wind Farm Pakistan	Wind	50	50	7,617	16.96	21.2	72	-	-
11	Hydrochina Dawood Power	Wind	50	50	4,179	47.15	11.6	293	2,040	96
12	Sachal Energy Development	Wind	50	50	9,358	43.83	26.0	394	-	-
13	Tenaga Generasi	Wind	50	50	4,707	43.91	13.1	294	1,965	86
14	Hawa Energy	Wind	50	50	9,694	36.26	26.9	463	3,071	111
15	Metro Power Company	Wind	50	50	11,783	35.22	32.7	176	-	-
16	ACT Wind	Wind	30	30	6,686	29.85	31.0	144	2,900	3
17	Jhampir Power	Wind	50	50	7,865	36.26	21.8	393	2,968	108
18	Foundation Wind Energy-I	Wind	50	50	5,486	40.42	15.2	180	-	-
19	Liberty Wind Power-I	Wind	50	50	7,056	13.98	19.6	143	3,187	45
20	DIN Energy	Wind	50	50	8,591	14.01	23.9	167	3,232	46
21	Tricon Boston-C	Wind	50	50	7,290	37.00	20.3	-	2,873	107
22	Tricon Boston-B	Wind	50	50	6,544	37.00	18.2	-	2,717	101
23	Foundation Wind Energy-II	Wind	50	50	8,161	21.33	22.7	184	182	6
24	Liberty Wind Power-II	Wind	50	50	6,487	13.98	18.0	132	2,942	41
25	Master Green Energy	Wind	50	50	7,016	13.98	19.5	145	3,208	46
26	Artistic Wind Power	Wind	50	50	7,524	13.85	20.9	148	3,180	44
27	Tricon Boston-A	Wind	50	50	5,715	37.14	15.9	928	2,569	95
28	Lakeside Energy	Wind	50	50	7,028	13.76	19.5	142	3,304	45
29	Lucky Renewables	Wind	50	50	7,564	14.44	21.0	152	3,117	45
30	NASDA Green Energy	Wind	50	50	10,589	13.79	29.4	147	3,217	45
31	Gul Ahmed Electric	Wind	50	50	6,826	13.80	19.0	138	3,142	43
32	ACT2 DIN Wind	Wind	50	50	6,686	13.85	18.6	93	2,900	40
33	Indus Wind Energy	Wind	50	50	7,157	14.04	19.9	156	3,145	44
34	Zephyr Power	Wind	50	50	-	32.71	-	137	-	-
35	Artistic Energy	Wind	50	50	13,113	20.54	36.4	394	373	8
36	Metro Wind Power	Wind	60	60	8,729	16.73	20.2	209	3,780	63
Total			1,848.00	1845	260,392		19.6	8,756	80,333	2,106
D. RENEWABLE (Solar)										
1	AJ Power	Solar	12	12	1,196	29.02	13.8	35	2	0
2	Quaid E Azam Solar	Solar	100	96	10,620	30.02	15.4	669	-	-
3	Best Green Energy Pakistan	Solar	100	96	11,470	47.92	16.6	550	-	-
4	Appolo Solar Development Pakistan	Solar	100	96	11,409	45.79	16.5	522	-	-
5	Crest Energy Pakistan	Solar	100	96	11,533	48.34	16.7	557	-	-
6	Harappa Solar	Solar	18	18	1,564	29.28	12.1	43	-	-
7	Atlas Solar	Solar	100	100	10,893	13.27	15.1	153	-	-
8	HNDS Energy	Solar	50	50	5,670	-	15.8	40	101	1
9	Helios Power	Solar	50	50	5,630	11.20	15.6	40	99	1
10	Meridian Energy	Solar	50	50	5,830	-	16.2	41	100	1
Total			680	664	75,816		15.9	2,650	302	2

Note:

1. Tariff Adjusted refers to the reference tariff that has been adjusted/revised by NEPRA for the respective quarter.
2. The data pertaining to Net Generation has been sourced from the Monthly Energy Purchase Data submitted by CPPA-G.
3. The data pertaining to CPP and NPMV has been provided by CPPA-G.
4. The CPP of Tricon Boston-A also includes the CPP of Tricon Boston-B and Tricon Boston-C.

December, 2024
Renewable

Details of EPP, CPP and Other Supplemental Charges

Sr. No	Plant Name	Fuel Type	Inst. Capacity (MW)	Ref. Capacity (MW)	December, 2024				
					Net Generation (MWh)	Tariff Adjusted (Rs./kWh)	Utilization Factor (%)	CPP (Rs.Million)	EPP (Rs.Million)
D. RENEWABLE (Bagasse)									
1	Fatima Energy	Bagasse	119	108		-	-		
2	Hamza Sugar Mills	Bagasse	15	15	9,640	9.06	89.3	74	71
3	Chanar Energy	Bagasse	22	22	2,747	9.35	17.3	22	20
4	Thal Industries Corporation	Bagasse	20	20	13,445	9.19	93.4	89	99
5	Almoiz Industries	Bagasse	36	36	4,118	9.35	15.9	33	30
6	RYK Mills	Bagasse	40	24	13,995	8.70	81.0	102	103
7	Chiniot Power	Bagasse	63	63	26,302	9.94	58.0	220	198
8	JDW-III	Bagasse	27	24	15,458	8.70	89.5	50	113
9	JDW-II	Bagasse	26	24	15,359	8.70	88.9	20	114
	Total		368	336	101,066		41.8	609	751

Note:

1. Tariff Adjusted refers to the reference tariff that has been adjusted/revised by NEPRA for the respective quarter.
2. The data pertaining to Net Generation and EPP has been sourced from the Monthly Energy Purchase Data submitted by CPPA-G.
3. The data pertaining to CPP has been provided by CPPA-G.

Key Performance Parameters of Power Plants in KE System (Thermal)																				
Sr. No	Plant Name	Fuel Type	Inst. Capacity MW	Ref. Capacity MW	Oct-24				Nov-24				Dec-24							
					Net Generation MWh	Tariff Adjusted Rs./kW/h	Utilization Factor %	Energy Cost Rs. Million	Net Generation MWh	Tariff Adjusted Rs./kW/h	Utilization Factor %	Energy Cost Rs. Million	Net Generation MWh	Tariff Adjusted Rs./kW/h	Utilization Factor %	Energy Cost Rs. Million				
A. THERMAL (Gas)																				
1	BQPS II	Gas	572	526	244,271	-	62.4	6,441.82	72,144	-	19.0	2,223.28	7,295	-	1.9	220.44	323,710	8,886	27.9	8,886
2	KCCP	Gas	248	227	28,020	-	16.6	1,029.08	995	-	0.6	56.21	-	-	0.0	0.00	29,015	1,085	5.8	1,085
3	KGTPS	Gas	107	96	2,113	-	3.0	76.08	307	-	0.4	12.56	-	-	0.0	0.00	2,420	89	1.1	89
4	SGTPS	Gas	107	96	-	-	0.0	0.00	-	-	0.0	0.00	-	-	0.0	-	0	0	0.0	0
5	Lucky Cement	Gas	5	5	366	-	9.8	11.57	260	-	7.2	8.43	205	-	5.5	6.53	831	27	7.5	27
6	Int'l Steel Ltd.	Gas	19	17	2,430	-	19.2	23.84	1,428	-	11.7	2.07	159	-	1.3	0.00	4,017	26	10.7	26
7	SNPC-I	Gas	52	51	21,074	4.2759	55.5	226.56	25,420	4.2759	69.2	273.36	20,852	4.2759	55.0	223.75	67,345	724	59.8	724
8	SNPC-II	Gas	52	51	21,201	4.2451	55.9	226.79	25,490	4.2451	69.4	272.74	19,416	4.2451	51.2	207.30	66,108	707	58.7	707
9	Lotte	Gas	14	14	Since August, 2023 based on withdrawal of NOC by SSGC, Lotte has not been selling any surplus electricity.															
Total (Gas)					319,475	8.5210	39.6	8,036	126,044	8.5210	16.2	2,849	7,295	8.5210	0.9	658	493,447	8,5210	20.6	11,542
A. THERMAL (Coal-Imported)																				
1	FFBL Power Company Ltd.	Coal-Imported	52	52	39,499	10.2533	102.1	744.05	32,100	10.2533	83.0	613.28	3,180	10.2533	8.5	59.52	74,779	10.2533	65.1	1,417
Total (Coal-Imported)					39,499	10.2533	102.1	744	32,100	10.2533	83.0	613	3,180	10.2533	8.5	60	74,779	10.2533	65.1	1,417
A. THERMAL (RLNG)																				
1	BQPS-III	RLNG	942	918	496,901	-	72.8	10,441.22	294,582	-	43.1	6,267.02	180,202	-	27.3	3,746	971,685	-	47.9	20,454
Total (RLNG)					496,901	-	72.8	10,441	294,582	-	43.1	6,267	180,202	-	27.3	3,746	971,685	-	47.9	20,454
A. THERMAL (RFO)																				
1	BQPS-I	RFO	840	730	30,629	-	5.6	1,331.43	1,794	-	0.3	114.61	-	-	-	1,289.14	32,423	-	2.0	2,735
2	Gul Ahmed Energy Ltd.	RFO	136	128	12,300	-	12.9	399.52	314	-	0.3	10.25	-	-	-	364.92	12,614	-	4.5	775
Total (RFO)					42,929	-	6.7	1731	2,108	-	0.3	125	0	-	0.0	1654	45,037	-	2.4	3,510

As per KE:

1. KE's fuel cost is provisional and subject to the approval of adjustment of Part Load, Depreciation and Start ups, etc.
2. KE's Variable O&M is provisional.
3. IPPs Fuel Cost for Nov 2024 and Dec 2024 is provisional.
4. IPPs Variable O&M is provisional.
5. Tariff Adjusted refers to the reference tariff that has been adjusted/ revised by NEPRA for the respective quarter.

Key Performance Parameters of Power Plants in KE System (Renewable)

Sr. No	Plant Name	Fuel Type	Inst. Capacity MW	Ref. Capacity MW	Oct-24						Nov-24						Dec-24						Oct-Dec 24					
					Net Generation		Tariff Adjusted Rs./kWh	Utilization Factor %	NPMV MWh	Energy Cost Rs. Million	Net Generation MWh	Tariff Adjusted Rs./kWh	Utilization Factor %	NPMV MWh	Energy Cost Rs. Million	Net Generation MWh	Tariff Adjusted Rs./kWh	Utilization Factor %	NPMV MWh	Energy Cost Rs. Million	Net Generation MWh	Tariff Adjusted Rs./kWh	Utilization Factor %	NPMV MWh	Energy Cost Rs. Million			
					MWh																							
B. RENEWABLE																												
1	OURSUN Pakistan Ltd.	Solar	50	50	7,732	-	20.8	-	-	7,204	-	19.4	-	-	7,187	-	20.0	-	-	22,123	-	-	20.0	-	-			
2	Gharo Solar Ltd.	Solar	50	50	8,439	-	22.7	-	-	7,447	-	20.0	-	-	7,086	-	19.7	-	-	22,972	-	-	20.8	-	-			
	Total		100	100	16,171	-	21.7	-	-	14,651	-	19.7	-	-	14,273	-	19.8	-	-	45,095	-	-	20.4	-	-			

**Details of Capacity, Energy, and EPP Mix in CPPA-G System, Along with the Combined Utilization Factor of Power Plants
Across Different Technologies – July to Dec, 2024**

Annex-II

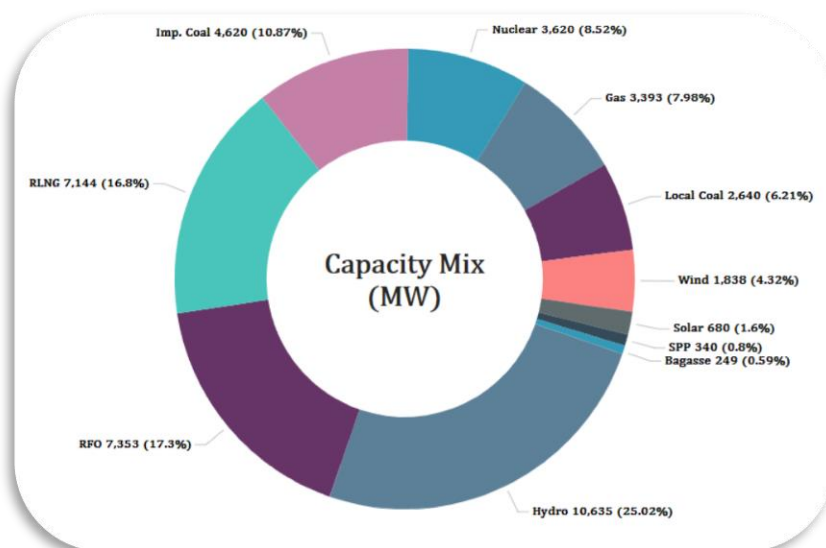


Figure 1 - Capacity Mix

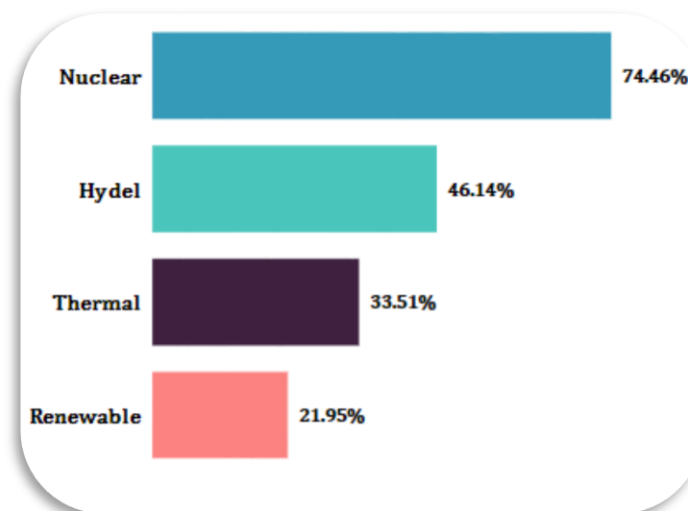


Figure 2 - Utilization Factor

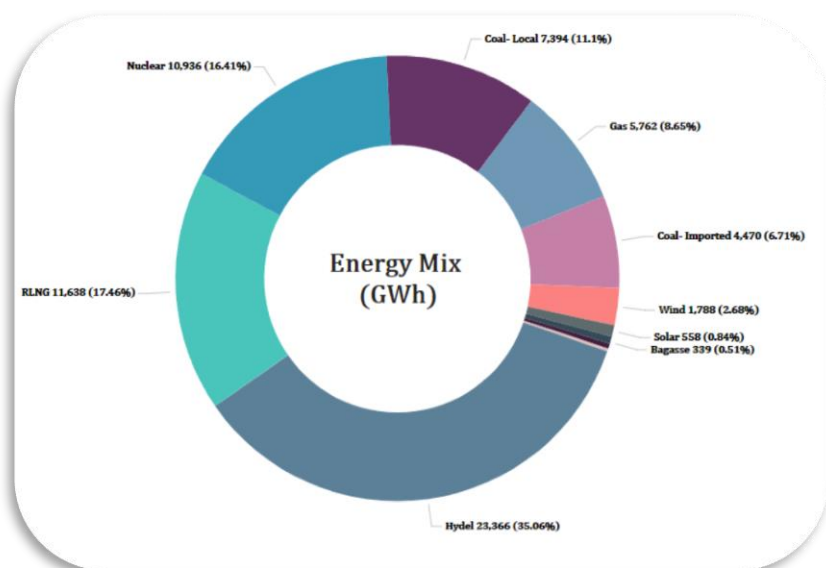


Figure 3 - Energy Mix

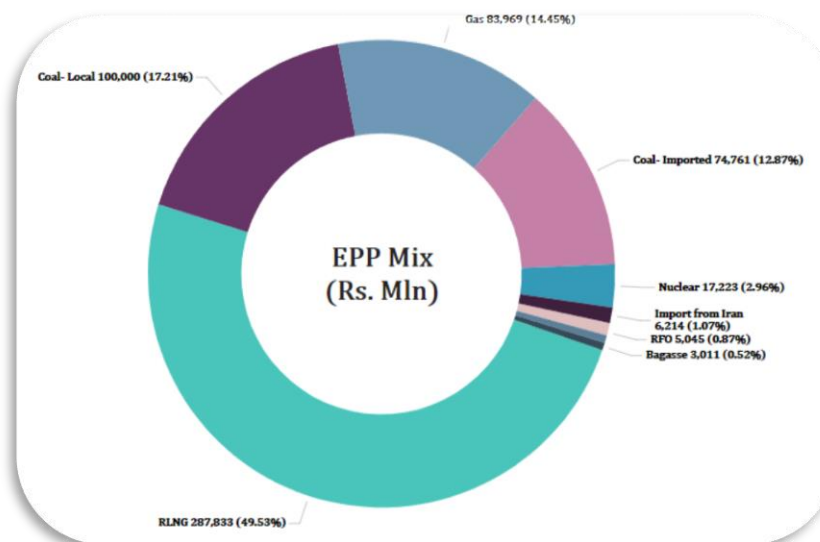


Figure 4 - EPP Mix

July to Sep, 2024

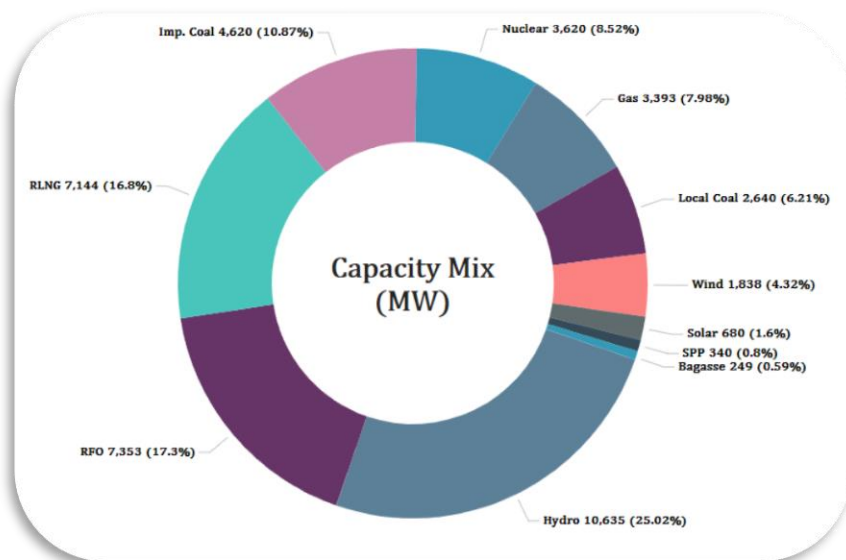


Figure 5 - Capacity Mix

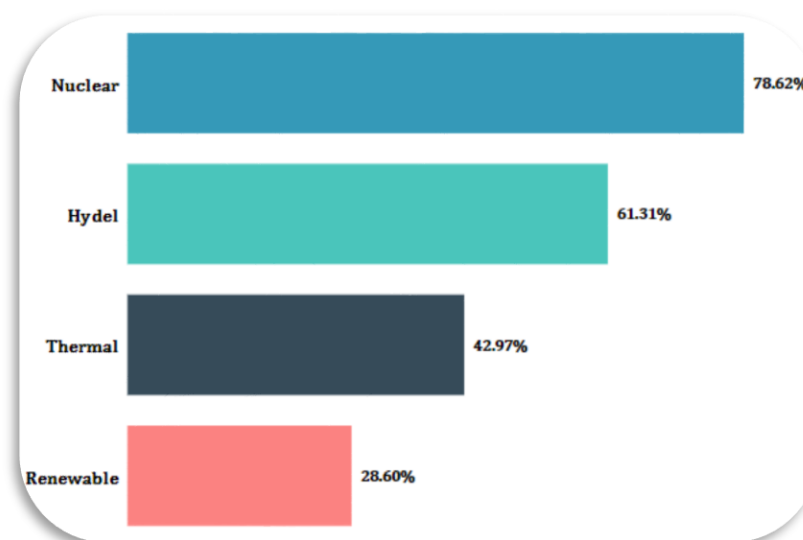


Figure 6 - Utilization Factor

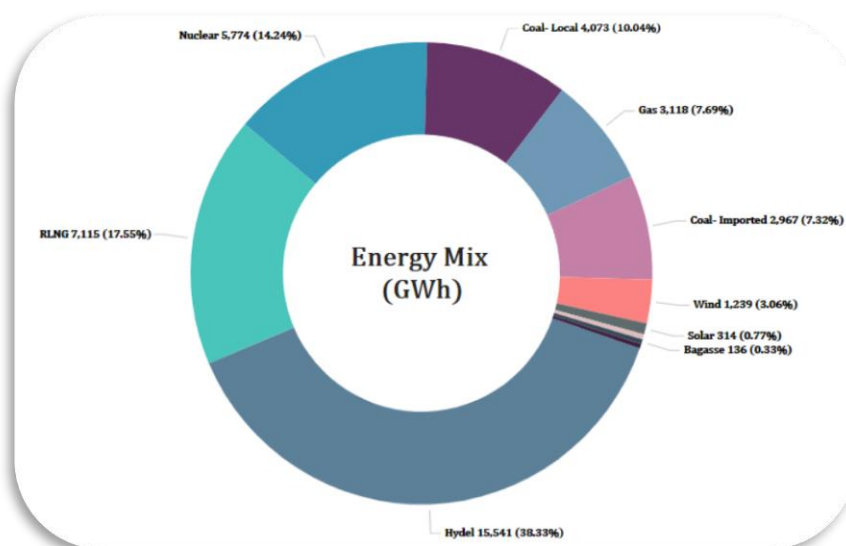


Figure 7 - Energy Mix

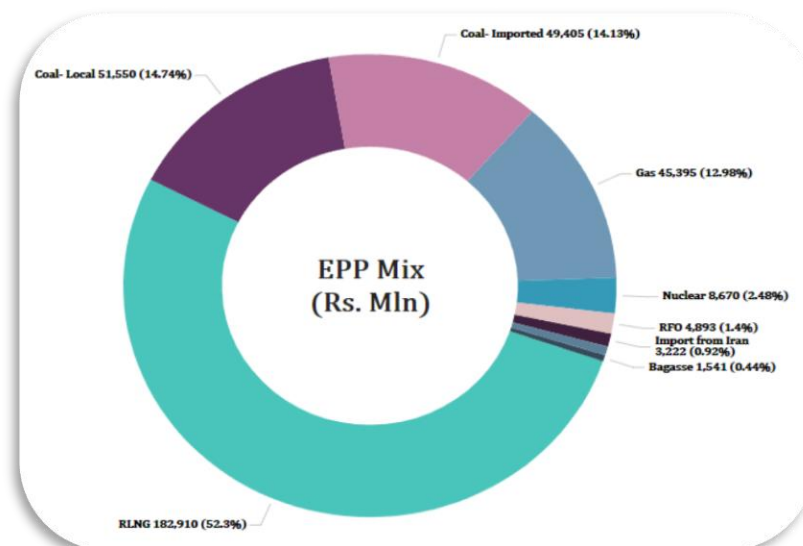


Figure 8 - EPP Mix

Oct to Dec, 2024

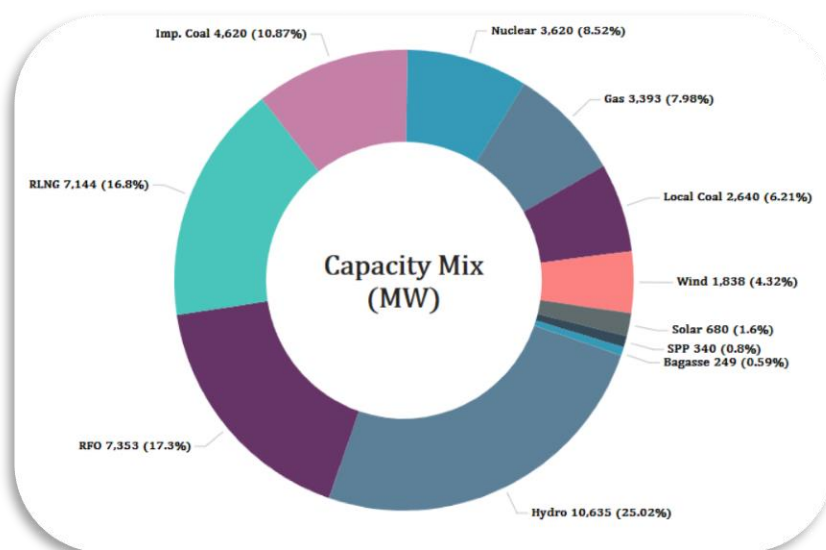


Figure 9 - Capacity Mix

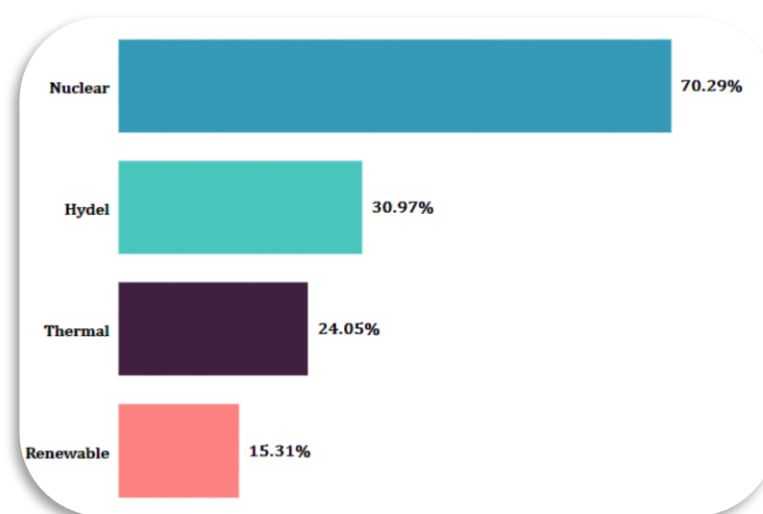


Figure 10 - Utilization Factor

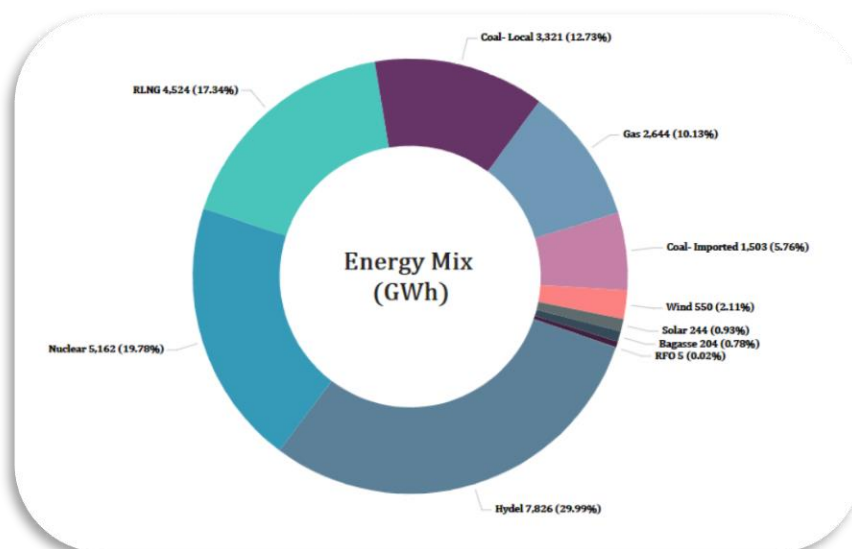


Figure 11 - Energy Mix

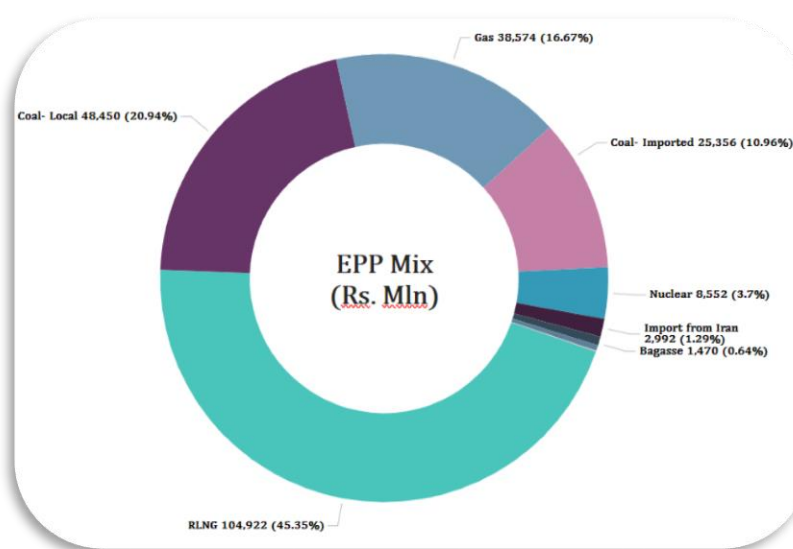


Figure 12 - EPP Mix

Fuel-Wise Energy (GWh) and EPP (Rs. Million) Mix – July to Dec, 2024

Fuel Type	2023		2024		Difference	
	Total	Mix (%)	Total	Mix (%)	Change	%
Bagasse	269	0.39%	339	0.51%	70	26%
Coal- Imported	3,271	4.75%	4,470	6.71%	1,199	37%
Coal- Local	8,226	11.94%	7,394	11.10%	(832)	-10%
Gas	5,572	8.09%	5,733	8.65%	190	3%
HSD	6	0.01%	-	0.00%	(6)	-100%
Hydel	24,260	35.22%	23,366	35.06%	(893)	-4%
Import	160	0.23%	236	0.35%	76	48%
Nucl.	11,296	16.40%	10,936	16.41%	(360)	-3%
RFO	1,352	1.96%	152	0.23%	(1,200)	-89%
RLNG	11,791	17.12%	11,668	17.46%	(153)	-1%
Solar	426	0.62%	558	0.84%	132	31%
Wind	2,253	3.27%	1,788	2.68%	(465)	-21%
Total	68,881	100.00%	66,639	0.51%	(2,242)	-3%

Figure 13 - Energy Mix (GWh)

Fuel Type	2023		2024		Difference	
	Total	Mix (%)	Total	Mix (%)	Change	%
Bagasse	1,975	0.33%	3,011	0.52%	1,036	52%
Coal- Imported	57,980	9.81%	74,761	12.87%	16,781	29%
Coal- Local	88,944	15.04%	100,000	17.22%	11,056	12%
Gas	81,495	13.78%	82,988	14.29%	2,474	3%
HSD	272	0.05%	-	0.00%	(272)	-100%
Hydel	2,987	0.51%	2,809	0.48%	67	2%
Import	4,196	0.71%	6,214	1.07%	2,018	48%
Nucl.	13,654	2.31%	17,223	2.96%	3,569	26%
RFO	48,323	8.17%	5,045	0.87%	(43,278)	-90%
RLNG	291,489	49.29%	288,814	49.72%	(3,656)	-1%
Solar	-	0.00%	-	0.00%	-	0%
Wind	-	0.00%	-	0.00%	-	0%
Total	591,315	100.00%	581,109	100.00%	(10,206)	-2%

Figure 14 - EPP Mix (Rs. Mln)

July to Sep, 2024

Fuel	2023				2024				Difference				
	July	August	Sep	Total	July	August	Sep	Total	July	August	Sep	Total	%
Bagasse	40	38	35	112	53	47	36	136	13	9	1	24	21%
Coal- Imported	702	719	644	2,065	1,137	681	1,149	2,967	435	-38	505	902	44%
Coal- Local	1,478	1,638	1,479	4,595	1,506	1,306	1,261	4,073	28	-332	-218	-522	-11%
Gas	1,129	1,214	1,005	3,348	1,150	950	988	3,089	21	-264	-17	-259	-8%
Hydel	5,518	6,006	5,009	16,532	5,341	5,362	4,838	15,541	-177	-644	-171	-991	-6%
Import	29	26	24	79	48	36	40	124	19	10	16	45	57%
Nuclear	2,107	2,040	2,286	6,434	1,988	2,190	1,596	5,774	-119	150	-690	-660	-10%
RFO	295	649	241	1,184	102	6	39	147	-193	-643	-202	-1037	-88%
RLNG	2,918	2,741	2,128	7,786	2,999	2,106	2,039	7,144	81	-635	-89	-642	-8%
Solar	75	84	79	238	110	98	105	314	35	14	26	76	32%
Wind	549	805	410	1,764	445	398	395	1,239	-104	-407	-15	-525	-30%
Total	14,839	15,959	13,339	44,137	14,880	13,179	12,487	40,546	41	-2780	-852	-3591	-8%

Figure 15 - Energy Mix (GWh)

Fuel	2023				2024				Difference				
	July	August	Sep	Total	July	August	Sep	Total	July	August	Sep	Total	%
Bagasse	292	276	250	818	397	650	494	1,541	105	374	244	723	88%
Coal- Imported	14,214	14,743	10,404	39,360	18,858	11,036	19,510	49,405	4,645	(3,707)	9,107	10,044	26%
Coal- Local	12,631	13,051	12,696	38,378	18,165	16,983	16,401	51,550	5,534	3,933	3,706	13,172	34%
Gas	16,346	16,941	14,413	47,700	16,420	13,596	14,398	44,414	74	-3345	-15	-3286	-7%
Hydel	756	757	561	2,074	847	727	562	2,136	91	(30)	1	62	3%
Import	681	658	577	1,915	1,202	975	1,046	3,222	520	317	469	1,306	68%
Nuclear	2,457	2,392	2,738	7,588	2,943	3,267	2,460	8,670	486	874	(278)	1,082	14%
RFO	9,024	22,945	9,490	41,459	3,447	188	1,259	4,893	(5,578)	(22,757)	(8,231)	(36,565)	-88%
RLNG	72,797	66,434	52,488	191,719	76,673	55,322	51,896	183,892	3876	-11112	-592	-7,827	-4%
Solar	-	-	-	-	-	-	-	-	-	-	-	-	0%
Wind	-	-	-	-	-	-	-	-	-	-	-	-	0%
Total	129,199	138,196	103,616	371,010	138,952	102,744	108,027	349,723	9,753	(35,452)	4,411	(21,287)	-6%

Figure 16 - Price Mix (Rs. Mln)

Oct to Dec, 2024

Fuel	2023				2024				Difference				
	October	November	December	Total	October	November	December	Total	October	November	December	Total	%
Bagasse	29	27	101	157	50	52	101	204	22	26	(0)	47	30%
Coal- Imported	336	486	384	1,205	903	477	124	1,503	566	(9)	(260)	298	25%
Coal- Local	1,334	987	1,310	3,631	1,518	1,019	784	3,321	184	31	(525)	(310)	-9%
Gas	704	695	826	2,224	826	858	960	2,644	122	163	134	419	19%
HSD	-	-	6	6	-	-	-	-	-	-	(6)	(6)	-
Hydel	3,114	2,755	1,859	7,728	3,187	2,860	1,778	7,826	73	105	(81)	98	1%
Import	23	30	28	80	42	37	33	112	20	7	5	31	39%
Nuclear	1,826	1,572	1,464	4,862	1,442	1,655	2,065	5,162	(384)	84	601	300	6%
RFO	(1)	0	168	167	2	0	3	5	3	(0)	(166)	(163)	-97%
RLNG	1,939	798	1,268	4,005	2,003	907	1,615	4,524	64	109	347	519	13%
Solar	76	50	62	188	99	69	76	244	23	19	14	56	30%
Wind	191	148	150	489	190	98	262	550	(1)	(50)	111	60	12%
Total	9,570	7,547	7,627	24,744	10,262	8,032	7,800	26,094	692	485	173	1,350	5%

Figure 17 - Energy Mix (GWh)

Fuel	2023				2024				Difference				
	Oct	Nov	Dec	Total	Oct	Nov	Dec	Total	Oct	Nov	Dec	Total	%
Bagasse	209	198	751	1,158	331	388	751	1,470	122	190	(0)	312	27%
Coal- Imported	4,588	7,268	6,764	18,619	15,653	7,304	2,400	25,356	11,065	36	(4,364)	6,736	36%
Coal- Local	17,240	16,032	17,295	50,566	18,310	15,606	14,534	48,450	1,070	(426)	(2,761)	(2,116)	-4%
Gas	10,218	10,790	12,788	33,795	12,540	12,298	13,736	38,574	2,323	1,508	949	4,779	14%
HSD	-	-	272	272	-	-	-	-	-	-	(272)	(272)	-
Hydel	359	303	251	913	379	318	221	918	20	15	(30)	5	1%
Import	522	824	934	2,281	1,074	1,000	919	2,992	551	175	(15)	711	31%
Nuclear	2,241	1,897	1,928	6,066	2,181	2,865	3,507	8,552	(61)	968	1,579	2,486	41%
RFO	3	13	6,848	6,864	64	-	87	151	62	(13)	(6,761)	(6,713)	-
RLNG	46,726	19,255	33,788	99,770	46,169	21,396	37,357	104,922	(557)	2,141	3,568	5,153	5%
Solar	-	-	-	-	-	-	-	-	-	-	-	-	-
Wind	-	-	-	-	-	-	-	-	-	-	-	-	-
Total	82,105	56,580	81,620	220,305	96,701	61,174	73,512	231,386	14,596	4,594	(8,108)	11,081	5%

Figure 18 - EPP Mix (Rs. Mln)

Fuel-Wise Energy (GWh) and EPP (Rs. Million) Mix, Along with Comparison to the Same Period Last Year – July to Sep, 2024

Fuel Type	2023		2024		Difference	
	Total	Mix (%)	Total	Mix (%)	Change	%
Bagasse	112	0.25%	136	0.34%	23	0.08%
Coal- Imported	2,065	4.68%	2,967	7.32%	901	2.64%
Coal- Local	4,595	10.41%	4,073	10.05%	(522)	-0.37%
Gas	3,348	7.58%	3,089	7.62%	(259)	0.04%
Hydel	16,532	37.46%	15,541	38.33%	(991)	0.87%
Import	79	0.18%	124	0.31%	45	0.13%
Nucl.	6,434	14.58%	5,774	14.24%	(660)	-0.34%
RFO	1,184	2.68%	147	0.36%	(1,037)	-2.32%
RLNG	7,786	17.64%	7,144	17.62%	(642)	-0.02%
Solar	238	0.54%	314	0.77%	76	0.23%
Wind	1,764	4.00%	1,239	3.06%	(525)	-0.94%
Total	44,137	100.00%	40,546		(3,591)	-

Figure 19 - Energy Mix (GWh)

Fuel Type	2023		2024		Difference	
	Total	Mix (%)	Total	Mix (%)	Change	%
Bagasse	818	0.22%	1,541	0.44%	723	0.22%
Coal- Imported	39,360	10.61%	49,405	14.13%	10,044	3.52%
Coal- Local	38,378	10.34%	51,550	14.74%	13,172	4.40%
Gas	47,700	12.86%	44,414	12.98%	(2,304)	-0.16%
Hydel	2,074	0.56%	2,136	0.61%	62	0.05%
Import	1,915	0.52%	3,222	0.92%	1,306	0.40%
Nucl.	7,588	2.05%	8,670	2.48%	1,082	0.43%
RFO	41,459	11.17%	4,893	1.40%	(36,565)	-9.77%
RLNG	191,719	51.67%	183,892	52.58%	(7,827)	0.91%
Solar	-	0.00%	-	0.00%	-	0.00%
Wind	-	0.00%	-	0.00%	-	0.00%
Total	371,010	100.00%	349,723	100.00%	(21,287)	

Figure 20 - EPP Mix (Rs. Mln)

Oct to Dec, 2024

Fuel Type	2023		2024		Difference	
	Total	Mix (%)	Total	Mix (%)	Change	%
Bagasse	157	0.63%	204	0.78%	47	0.15%
Coal- Imported	1,205	4.87%	1,503	5.76%	298	0.89%
Coal- Local	3,631	14.67%	3,321	12.73%	(310)	-1.95%
Gas	2,224	8.99%	2,644	10.13%	419	1.14%
HSD	6	0.03%	-	0.00%	(6)	-0.03%
Hydel	7,728	31.23%	7,826	29.99%	98	-1.24%
Import	80	0.33%	112	0.43%	31	0.10%
Nucl.	4,862	19.65%	5,162	19.78%	300	0.13%
RFO	167	0.68%	5	0.02%	(163)	-0.66%
RLNG	4,005	16.18%	4,524	17.34%	519	1.15%
Solar	188	0.76%	244	0.93%	56	0.18%
Wind	489	1.98%	550	2.11%	60	0.13%
Total	24,744	100.00%	26,094	100.00%	1,350	

Figure 21 - Energy Mix (GWh)

Fuel Type	2023		2024		Difference	
	Total	Mix (%)	Total	Mix (%)	Change	%
Bagasse	1,158	1%	1,470	1%	312	0.11%
Coal- Imported	18,619	8%	25,356	11%	6,736	2.51%
Coal- Local	50,566	23%	48,450	21%	(2,116)	-2.01%
Gas	33,795	15%	38,574	17%	4,779	1.33%
HSD	272	0%	-	0%	(272)	-0.12%
Hydel	913	0%	918	0%	5	-0.02%
Import	2,281	1%	2,992	1%	711	0.26%
Nucl.	6,066	3%	8,552	4%	2,486	0.94%
RFO	6,864	3%	151	0%	(6,713)	-3.05%
RLNG	99,770	45%	104,922	45%	5,153	0.06%
Solar	-	0%	-	0%	-	0.00%
Wind	-	0%	-	0%	-	0.00%
Total	220,305	100%	231,386	100%	11,081	

Figure 22 - EPP Mix (Rs. Mln)

Key Technical and Financial Parameters of Power Plants Across Different Technologies – July to Sep, 2024

Wind

Power Plant	Capacity (MW)	Availability Factor (%)	Utilization Factor (%)	Generation (GWh)	Adjusted Tariff Jul-Sep 24 (Rs. / kWh)	Capacity Cost (Rs. Mln)	NPMV GWh	NPMV Rs. Mln
Tenega Generasi	50.00	104	27	29.98	44.77	1,560.40	5	218.20
3 Gorges 1st Wind	50.00	100	26	28.82	16.92	989.32	4	70.13
3 Gorges 2nd Wind	50.00	100	24	25.91	37.63	1,161.94	5	186.93
3 Gorges 3rd Wind	50.00	100	24	26.88	37.63	1,175.19	5	189.87
Artistic Energy	50.00	100	43	47.00	20.91	1,144.15	3	62.15
Gul Ahmed Wind	50.00	100	22	24.50	42.16	1,304.96	5	195.90
Jhampir Power	50.00	100	30	33.29	36.95	1,438.14	6	209.11
Lucky Renewables	50.00	100	35	38.70	14.75	739.31	7	99.50
Metro Power	50.00	100	29	32.02	35.22	1,955.42	4	143.70
Yunus Energy	50.00	100	22	24.57	36.58	1,170.93	5	179.61
Gul Ahmad Electric	50.00	100	36	39.93	14.09	577.31	7	93.48
Hawa Energy	50.00	100	29	31.79	36.95	1,382.43	6	208.88
NASDA Green	50.00	100	36	39.39	14.08	646.14	7	92.72
ACT 2 DIN	50.00	100	36	40.15	14.14	662.13	7	94.93
Foundation Wind-I	50.00	100	30	33.54	40.43	2,587.62	4	161.23
Foundation Wind-II	50.00	100	33	36.42	30.35	1,991.09	4	120.30
Indus Wind	50.00	100	37	40.96	14.34	681.23	7	94.10
Artistic Wind	50.00	99	34	37.72	14.14	617.35	7	93.12
Liberty Wind-I	50.00	99	32	35.19	14.27	595.44	7	93.20
Tricon Boston - B	50.00	99	33	35.97	37.90	0.00	6	209.88
Tricon Boston - C	50.00	99	32	35.32	37.90	0.00	6	211.91
DIN Energy	50.00	99	32	35.36	14.31	597.92	6	92.88
Sachal Energy	50.00	99	27	29.46	43.81	2,321.22	0	0.00
Sapphire Wind	50.00	99	21	23.58	46.22	1,320.66	5	224.00
Tricon Boston - A	50.00	99	34	37.98	37.90	4,715.96	5	190.37
UEP Wind	99.00	99	23	50.43	47.95	2,855.11	9	437.32
Liberty Wind-II	50.00	99	33	36.43	14.27	612.39	6	92.15
Master Green	50.00	99	33	36.48	14.27	627.10	7	97.75
Master Wind	50.00	99	52	57.50	42.16	1,278.28	5	204.22
Hydro China Dawood	50.00	99	26	28.96	47.95	1,497.68	4	194.86
Lakeside Energy	50.00	99	35	38.63	14.06	623.97	6	81.92
Zephyr Power	50.00	99	40	43.78	33.89	1,790.24	5	156.92
Metro Wind	60.00	98	43	57.50	17.32	1,130.74	8	134.61
ACT Wind	30.00	98	30	19.97	31.08	690.52	1	45.82
FFC Energy	50.00	97	22	24.21	13.07	619.72	3	39.25
Zorlu Enerji	56.00	82	26	32.39	19.11	3,614.69	3	57.90

Hydel

Power Plant	Capacity (MW)	Availability Factor (%)	Utilization Factor (%)	Generation (GWh)	Capacity Cost (Rs. Mln)
Allai Khwar	121	99.70	46.40	124	665
Chashma	184	85.80	60.70	246	920
Chichoki	13	97.10	32.70	9	65
Chitral	1	95.70	21.40	0	32
Daral Khwar	37	99.50	65.40	53	0
Dargai	20	97.80	46.10	20	96
Duber Khwar	130	99.50	80.10	230	1,057
Ghazi Barotha	1450	97.90	68.00	2178	3,694
Golen Gol	108	98.40	22.60	54	1,983
Gomal Zam	17	11.10	7.90	3	106
Gulpur	100	100.00	41.80	92	0
Jabban	22	98.20	84.10	41	171
Jagran-I	30	90.30	71.60	47	0
Jinnah Hydel	36	37.00	34.20	27	430
Karot	720	100.00	55.90	889	0
Khan Khwar	72	99.60	38.90	62	548
Kurram Garhi	4	95.00	59.60	5	45
Malakand-III	81	99.50	39.80	71	0
Mangla	1000	78.80	45.90	1014	3,246
Nandipur	14	98.00	42.50	13	83
Neelum Jhelum	969	0.00	0.00	0	0
New Bong Escape	84	100.00	32.10	59	0
Patrind	147	92.10	63.30	205	0
Pehur	18	98.60	35.20	14	0
Ranolia	17	0.00	0.00	0	0
Rasul	22	95.40	31.40	15	93
Renala	1	98.20	25.40	1	23
Shadiwal	14	100.50	30.40	9	69
SK Hydro (Pvt.) Ltd.	883	100.00	29.40	106	0
Tarbela	3478	98.40	89.70	6891	5,760
Tarbela 4th Extension	1410	97.60	88.20	2745	5,334
Warsak	243	63.50	49.70	266	701

RLNG

Power Plant	Capacity (MW)	Availability Factor (%)	Utilization Factor (%)	Generation (GWh)	Adjusted Tariff Jul-Sep 24 (Rs./kWh)	Capacity Cost (Rs. Mln)
Bhikki	1,163	100	64	1,654	3.06	-7,356
Rousch Power	395	100	7	62	0.00	2,841
Saif Power	204	100	22	100	1.86	1,211
CCPP Nandipur	500	100	44	488	2.40	2,328
FKPCL	151	100	11	36	0.00	760
Orient Power	203	99	42	187	2.29	1,179
Sapphire Electric	202	99	31	138	1.87	1,659
Balloki	1,165	98	65	1,663	2.80	7,163
HBS	1,172	94	76	1,976	2.86	7,154
Halmore	200	90	40	178	2.47	1,167
Trimmu	1,243	78	24	661	3.46	3,947

RFO

Power Plant	Capacity (MW)	Availability Factor (%)	Utilization Factor (%)	Generation (GWh)	Adjusted Tariff Jul-Sep 24 (Rs./kWh)	Capacity Cost (Rs. Mln)
Atlas Power	214	100	3	15	2.10	1,113
Attock Gen	156	100	7	23	2.07	949
Hubco Narowal	214	100	2	9	2.61	1,298
Kohinoor Energy	124	100	8	23	0.00	614
Lalpir	350	100	0	0	0.00	2,672
PakGen	350	100	0	2	0.00	2,548
Saba Power	125	100	0	0	0.00	820
Liberty Power Tech	196	100	6	24	2.22	1,261
Nishat Chunian	196	100	2	8	2.00	972
Nishat Power	195	99	7	28	1.98	935
HUBCO	1,200	94	1	15	0.00	7,937

Gas

Power Plant	Capacity (MW)	Availability Factor (%)	Utilization Factor (%)	Generation (GWh)	Adjusted Tariff Jul-Sep 24 (Rs./kWh)	Capacity Cost (Rs. Mln)
Engro Powergen Qadirpur	212	100	45	213	1.66	1,095
Uch Power	547	99	84	1,013		1,954
Uch-II Power	372	99	71	585		5,545
TNB Liberty Power	212	98	70	327		1,254
Foundation Power	168	97	80	296	2.20	1,002
Guddu 747	721	57	41	654	4.30	5,700

Thar Coal

Power Plant	Capacity (MW)	Availability Factor (%)	Utilization Factor (%)	Generation (GWh)	Adjusted Tariff Jul-Sep 24 (Rs./kWh)	Capacity Cost (Rs. Mln)
Thal Nova	303	99	80	533	12.11	8,339
Engro Thar	603	88	73	975	11.56	15,664
TCB-1	1,230	88	80	2,159	12.00	32,507
Thar Energy	300	76	61	405	12.16	15,618

Imported Coal

Power Plant	Capacity (MW)	Availability Factor (%)	Utilization Factor (%)	Generation (GWh)	Adjusted Tariff Jul-Sep 24 (Rs./kWh)	Capacity Cost (Rs. Mln)
CPHGC	1,249	100	44	1,207	11.73	30,455
Port Qasim	1,243	100	41	1,133	10.49	43,163
Sahiwal Coal	1,244	100	44	1,207	10.13	27,684
Lucky Electric	605	98	36	486	10.13	13,504

Nuclear

Power Plant	Capacity (MW)	Availability Factor (%)	Utilization Factor (%)	Generation (GWh)	Capacity Cost (Rs. Mln)
C1	301	100	98	649	5,073
C3	315	100	94	655	11,709
K2	1,040	96	88	2,023	-6,517
C4	315	85	82	570	11,645
K3	1,040	72	70	1,617	72,428
C2	315	40	37	260	4,845

Solar

Power Plant	Capacity (MW)	Availability Factor (%)	Utilization Factor (%)	Generation (GWh)	Adjusted Tariff Jul - Sep 24 (Rs./kWh)	Capacity Cost (Rs. Mln)
Atlas Solar	100	100	23	50	14.24	864
Best Green	96	100	20	42	48.62	1962
Crest Energy	96	100	20	43	48.99	1988
Gharo Solar	50	100	19	21	17.42	0
Harappa	18	100	22	9	29.57	256
AJ Power	12	100	18	5	29.30	138
Oursun	50	100	18	19	32.57	0
Helios	50	100	25	27	0.00	190
HNDS	50	54	25	27	0.00	192
Meridian	50	54	25	27	0.00	188
Appolo Solar	96	53	20	43	46.22	1974
Quaid-e-Azam Solar	96	53	19	40	30.73	1496

Bagasse

Power Plant	Capacity (MW)	Availability Factor (%)	Utilization Factor (%)	Generation (GWh)
Fatima Energy	108	98.40	41.60	100
JDW-II	24	98.40	99.40	53
JDW-III	24	82.40	81.30	43
Chiniot Power	63	50.20	22.10	31
RYK Mills	24	31.30	17.30	9
Al-Moiz Industries	36	0.00	0.00	0
Chanar Energy	22	0.00	0.00	0
Hamza Sugar	15	0.00	0.00	0
Thal Industries	20	0.00	0.00	0

Oct to Dec, 2024

Wind

Power Plant	Capacity (MW)	Availability Factor (%)	Utilization Factor (%)	Generation (GWh)	Adjusted Tariff Jul-Sep 24 (Rs. / kWh)	Capacity Cost (Rs. Mln)	NPMV GWh	NPMV Rs. Mln
3 Gorges 2nd Wind	50.00	100	37	12.19	36.90	453.00	3	114.50
3 Gorges 3rd Wind	50.00	100	37	12.89	37.00	476.00	3	117.24
Artistic Energy	50.00	100	21	23.12	20.54	497.00	0	8.25
Gul Ahmad Electric	50.00	100	14	18.31	13.80	253.00	4	48.30
Hawa Energy	50.00	100	36	17.41	36.26	631.00	3	124.05
Hydro China Dawood	50.00	100	47	18.94	47.15	490.00	2	107.78
Jhimpir Power	50.00	100	36	15.64	36.26	567.00	3	120.07
Tenega Generasi	50.00	100	44	11.06	43.91	486.00	2	97.20
Yunus Energy	50.00	100	35	12.07	35.45	428.00	3	102.74
Zephyr Power	50.00	100	33	9.81	32.71	321.00	0	8.56
Indus Wind	50.00	100	14	18.28	14.04	256.00	4	49.28
Foundation Wind-II	50.00	100	21	14.46	21.33	318.00	0	5.65
3 Gorges 1st Wind	50.00	100	17	12.92	16.96	221.00	0	0.46
Artistic Wind	50.00	100	14	17.17	13.85	238.00	4	48.89
UEP Wind	99.00	100	47	20.86	47.15	983.00	5	227.83
Foundation Wind-I	50.00	100	40	11.19	40.42	477.00	0	0.00
Gul Ahmed Wind	50.00	100	41	12.22	41.17	503.00	3	119.15
Lucky Renewables	50.00	100	14	17.16	14.44	248.00	3	50.03
Metro Power	50.00	100	35	17.95	35.22	424.00	0	1.14
Liberty Wind-I	50.00	99	14	16.04	13.98	225.00	4	49.58
ACT Wind	30.00	99	30	10.46	29.85	245.00	3	3.12
NASDA Green	50.00	99	14	20.72	13.79	242.00	4	50.43
Sachal Energy	50.00	99	44	15.11	43.83	564.00	0	0.00
Tricon Boston - B	50.00	99	37	15.26	37.00	567.00	3	112.32
Liberty Wind-II	50.00	99	14	15.79	13.98	221.00	3	46.07
DIN Energy	50.00	99	14	17.69	14.01	247.00	4	51.34
Master Green	50.00	99	14	15.70	13.98	223.00	4	50.60
Tricon Boston - C	50.00	99	37	15.81	37.00	587.00	3	118.25
ACT 2 DIN	50.00	99	14	16.66	13.85	231.00	3	45.36
Tricon Boston - A	50.00	99	37	15.14	37.14	562.00	3	106.34
Lakeside Energy	50.00	98	14	17.04	13.76	235.00	4	50.29
Metro Wind	60.00	98	17	24.96	16.73	418.00	4	70.30
Master Wind	50.00	98	41	11.18	41.17	460.00	3	115.07
Sapphire Wind	50.00	95	46	10.20	45.64	466.00	3	132.91
FFC Energy	50.00	95	13	11.33	13.14	148.00	0	0.56
Zorlu Enerji	56.00	83	19	14.22	19.14	223.00	0	0.86

Hydel

Power Plant	Capacity (MW)	Availability Factor (%)	Utilization Factor (%)	Generation (GWh)	Capacity Cost (Rs. Mln)
Karot	720	100.00	14.91	237	6,600
Malakand-III	81	99.90	18.10	32	139
Shadiwal	14	99.90	36.08	11	114
Patrind	147	99.70	19.36	63	1,597
Daral Khwar	37	99.20	19.37	16	0
Renala	1	98.10	17.39	0	33
New Bong Escape	84	98.00	69.57	129	1,430
Chitral	1	97.90	22.49	0	45
SK Hydro (Pvt.) Ltd.	883	97.00	14.53	283	7,248
Jagran-I	30	96.60	19.67	13	0
Nandipur	14	94.90	16.14	5	124
Allai Khwar	121	93.70	15.40	41	890
Chichoki	13	93.20	14.68	4	96
Tarbela	3478	89.50	28.32	2175	12,762
Jabban	22	88.50	63.61	31	227
Dargai	20	87.60	35.44	16	160
Ghazi Barotha	1450	87.60	55.58	1779	7,546
Tarbela 4th Extension	1410	85.10	26.83	835	8,838
Khan Khwar	72	83.80	12.46	20	742
Kurram Garhi	4	83.50	55.65	5	67
Gulpur	100	82.90	3.13	7	1,932
Mangla	1000	81.70	71.93	1588	5,640
Chashma	184	81.40	66.21	269	1,528
Golen Gol	108	72.40	12.71	30	2,716
Duber Khwar	130	68.20	7.61	22	1,384
Warsak	243	57.10	26.88	144	1,208
Rasul	22	43.30	21.26	10	141
Gomal Zam	17	41.40	30.89	12	144
Jinnah Hydel	36	35.40	59.12	47	604
Neelum Jhelum	969	0.00			0
Ranolia	17	0.00			0
Pehur					0

RLNG

Power Plant	Capacity (MW)	Availability Factor (%)	Utilization Factor (%)	Generation (GWh)	Adjusted Tariff 2nd Qtr 2024-25	Capacity Cost (Rs. Mln)
Trimmu	1243	101	8	207	0.00	1,819
CCPP Nandipur	500	100	3	28	2.41	2,393
Bhikki	1163	100	43	1,098	2.91	7,785
Balloki	1165	100	61	1,569	2.84	7,118
FKPCL	151	84	0	0	0.00	761
Halmore	200	82	3	12	2.54	754
Rousch Power	395	82	0	0	0.00	2,841
HBS	1172	81	61	1,569	3.01	6,901
Saif Power	204	79	3	15	1.92	810
Sapphire Electric	202	79	0	0	1.93	789
Orient Power	203	75	5	24	2.36	773

RFO

Power Plant	Capacity (MW)	Availability Factor (%)	Utilization Factor (%)	Generation (GWh)	Adjusted Tariff 2nd Qtr 2024-25	Capacity Cost (Rs. Mln)
Kohinoor Energy	124	100	0	1	0.00	614
Liberty Power Tech	196	99	0	0	2.17	945
Nishat Chunian	196	99	0	0	1.96	762
Attock Gen	156	99	0	1	2.08	662
Hubco Narowal	214	99	0	0	2.53	877
Nishat Power	195	96	0	2	1.93	795
PakGen	350	67	0	0	0.00	2,183
Saba Power	125	19	0	0	0.00	0
Atlas Power	214	16	0	0	0.00	0
HUBCO	1200	9	0	0	0.00	0
Lalpir	350	4	0	0	0.00	0

Gas

Power Plant	Capacity (MW)	Availability Factor (%)	Utilization Factor (%)	Generation (GWh)	Adjusted Tariff 2nd Qtr 2024-25	Capacity Cost (Rs. Mln)
Uch-II Power	372	100	74	606	6.63	5,701
Foundation Power	168	95	75	278	6.63	614
Engro Powergen Qadirpur	212	92	42	198	1.67	463
TNB Liberty Power	212	92	53	247	1.83	1,153
Uch Power	547	77	66	799	2.20	1,881
Guddu 747	721	37	32	513	1.94	0

Thar Coal

Power Plant	Capacity (MW)	Availability Factor (%)	Utilization Factor (%)	Generation (GWh)	Adjusted Tariff 2nd Qtr 2024-25	Capacity Cost (Rs. Mln)
Engro Thar	603	100	76	1,010	11.34	15,120
Thar Energy	300	100	56	368	11.83	9,102
Thal Nova	303	72	55	371	11.72	9,141
TCB-1	1230	68	50	1,348	11.65	15,060

Imported Coal

Power Plant	Capacity (MW)	Availability Factor (%)	Utilization Factor (%)	Generation (GWh)	Adjusted Tariff 2nd Qtr 2024-25	Capacity Cost (Rs. Mln)
CPHGC	1249	100	5	133	11.77	32,150
Port Qasim	1243	100	26	726	10.15	28,579
Lucky Electric	605	100	17	230	9.42	11,206
Sahiwal Coal	1244	71	14	374	9.96	27,354

Nuclear

Power Plant	Capacity (MW)	Availability Factor (%)	Utilization Factor (%)	Generation (GWh)	Adjusted Tariff 2nd Qtr 2024-25
C1	301	100	99	660	6.13
C2	315	100	95	664	-
C3	315	62	54	372	-
C4	315	100	96	666	16.55
K2	1040	99	88	2,031	10.52
K3	1040	44	33	757	11.2

Solar

Power Plant	Capacity (MW)	Availability Factor (%)	Utilization Factor (%)	Generation (GWh)	NPMV GWh	NPMV MIn	Adjusted Tariff for 2nd Qtr 2024-25
AJ Power	12	100.00	10.26	3	2.63	0.08	29.02
Appolo Solar	96	100.00	12.23	26	0.00	0.00	45.79
Atlas Solar	100	100.00	11.59	26	159.72	2.17	13.27
Best Green	96	100.00	12.21	26	0.00	0.00	47.92
Crest Energy	96	100.00	12.36	26	0.00	0.00	48.34
Harappa	18	100.00	10.00	4	103.49	2.21	29.28
Helios	50	101.10	0.00	0	98.90	0.68	11.20
HNDS	50	100.00	0.00	0	101.23	0.70	0.00
Meridian	50	100.00	0.00	0	100.44	0.69	0.00
Quaid-e-Azam Solar	96	43.80	11.57	25	0.00	0.00	30.02

Bagasse

Power Plant	Capacity (MW)	Availability Factor (%)	Utilization Factor (%)
Hamza Sugar	15	97.80	0.00
JDW-III	24	92.60	74.03
JDW-II	24	90.50	90.57
Chiniot Power	63	61.60	22.33
Thal Industries	20	41.10	0.00
Al-Moiz Industries	36	40.90	0.00
Fatima Energy	108	39.00	0.00
RYK Mills	24	37.00	17.25
Chanar Energy	22	8.60	0.00

TABLE-1: ASSESSMENT OF POWER PLANTS PERFORMANCE (JULY TO DECEMBER, 2024)–THERMAL (NTDC SYSTEM)

S. No.	Name of Power Plants	Main Fuel	Inst. Cap. (MW)	Ref. Cap. (MW)	Net Gen. (MWh)	Service Hours	Standby Hours	Planned Outage Hours	Unplanned Outage Hours	Availability Factor (%)	Net Capacity Factor (%)	Net Output Factor (%)
1	Liberty Power	RFO	202	196	23,639	147	4,250	17	2	99.6	2.7	81.9
2	PakGen	RFO	365	350	1,809	11	3,685	720	0	83.7	0.1	47.0
3	Lal Pir	RFO	362	350	0	0	2,304	720	0	52.2	0.0	0.0
4	Atlas Power	RFO	224	214	15,219	85	2,482	0	0	58.1	1.6	83.7
5	Nishat Power	RFO	202	195	30,250	167	4,146	36	67	97.7	3.5	92.7
6	Nishat Chunian	RFO	202	196	8,449	50	4,337	4	25	99.3	1.0	87.1
7	Saba Power	RFO	136	125	0	0	2,616	0	0	59.2	0.0	0.0
8	HUBCO Narowal	RFO	214	214	9,604	51	4,334	31	0	99.3	1.0	87.5
9	Attock Gen.	RFO	165	156	24,062	169	4,215	29	2	99.3	3.5	91.1
10	Hub	RFO	1,292	1,200	15,051	126	2,131	209	0	51.1	0.3	10.0
11	Kohinoor Energy	RFO	131	124	23,499	306	4,110	0	0	100.0	4.3	61.9
12	Bhikki	RLNG	1,231	1,163	2,751,869	3,451	962	0	3	99.9	53.6	68.6
13	Balloki	RLNG	1,276	1,165	3,232,031	3,253	1,111	0	52	98.8	62.8	85.3
14	Haveli Bahadur Shah	RLNG	1,277	1,172	3,544,989	3,598	247	0	571	87.1	68.5	84.1
15	Sapphire Electric	RLNG	235	202	138,461	989	2,951	456	20	89.2	15.5	69.3
16	Rousch Power	RLNG	450	395	62,518	325	3,683	408	91	90.8	3.6	48.8
17	FKPCL	RLNG	170	151	36,459	323	3,731	360	2	91.8	5.5	74.8
18	Orient Power	RLNG	225	203	211,394	1,449	2,392	528	47	87.0	23.6	71.9
19	Saif Power	RLNG	225	204	115,209	915	3,045	456	0	89.7	12.8	61.8
20	Halmore Power	RLNG	225	200	190,270	1,315	2,489	360	228	86.1	21.5	72.4
21	Nandipur Power Plant	RLNG	567	500	516,290	1,534	2,879	0	3	99.9	23.4	67.3
22	Punjab Thermal	RLNG	1,263	1,243	868,654	1,854	2,086	0	500	89.2	15.8	37.7
23	Foundation Power	N.Gas	179	168	576,073	4,211	9	38	158	95.6	77.6	81.4
24	TNB Liberty	N.Gas	235	212	574,281	3,463	726	0	227	94.9	61.3	78.2
25	Uch	N.Gas	586	547	1,812,085	3,657	236	470	53	88.1	75.0	90.6
26	Uch-II Power	N.Gas	404	372	1,191,820	3,785	594	0	37	99.2	72.6	84.7
27	Engro Powergen Qadirpur	N.Gas	227	212	411,370	4,194	45	154	24	96.0	43.9	46.3
28	Guddu 747	N.Gas	747	721	1,166,906	1,787	283	184	2,138	46.9	36.6	90.6
29	TPS Muzaffargarh	RFO/RLNG	1,350	450	0	0	2,940	0	1,476	66.6	0.0	0.0
30	TPS Jamshoro	RFO/RLNG	880	300	0	0	2,046	162	2,208	46.3	0.0	0.0
31	Engro Power Thar	Coal	660	603	1,985,895	3,809	343	264	0	94.0	74.6	86.5
32	Port Qasim	Coal	1,320	1,243	1,858,765	2,165	2,251	0	0	100.0	33.9	69.1
33	Sahiwal Coal	Coal	1,320	1,244	1,580,544	1,835	1,947	632	3	85.6	28.8	69.2
34	China Power Hub Coal	Coal	1,320	1,249	274,126	313	4,102	0	0	100.0	5.0	70.1
35	Lucky Electric Power	Coal	660	605	715,618	1,789	2,577	0	50	98.9	26.8	66.1
36	Thal Nova	Coal	330	303	903,947	3,735	48	609	24	85.7	67.6	79.9
37	Thar Energy	Coal	330	300	772,474	3,136	745	0	536	87.9	58.3	82.1
38	Thar Coal Block-1	Coal	1,320	1,230	3,731,492	3,317	125	669	304	78.0	68.7	91.5
Sub-Total		-	22,507	19,677	29,375,120	-	-	-	-	-	-	-

TABLE-2: ASSESSMENT OF POWER PLANTS PERFORMANCE (JULY TO DECEMBER, 2024) – THERMAL (KE SYSTEM)

S. No.	Name of Power Plants	Main Fuel	Inst. Cap. (MW)	Ref. Cap. (MW)	Net Gen. (MWh)	Service Hours	Standby Hours	Planned Outage Hours	Unplanned Outage Hours	Availability Factor (%)	Net Capacity Factor (%)	Net Output Factor (%)
1	BQPS-I	RFO/RLNG	840	730	262481	686	2,834	255	345	79.7	8.1	52.4
2	BQPS-II	RLNG	572	526	1125481	3,179	1,237	0	0	100.0	48.5	67.3
3	BQPS-III	RLNG	942	918	2444271	3,613	233	472	97	87.1	60.3	73.7
4	KCCPP	RLNG/HSD	248	227	124130	1,431	2,892	33	46	97.9	12.4	38.2
5	KGTPS	RLNG	107	96	4264	77	4,331	7	1	99.8*	1.0	57.8
6	SGTPS	RLNG	107	96	0	0	4,392	0	24	99.5*	0.0	0.0
7	Gul Ahmed Energy	RFO	136	128	73267	616	2,119	224	41	91.2	19.1	92.9
8	FPCL	Coal	52	52	184677	3,420	0	0	996	77.5	80.4	103.8
9	Sindh Nooriabad-I	Gas	52	51	142683	2,869	909	507	131	85.5	63.4	97.5
10	Sindh Nooriabad-II	Gas	52	51	150562	3,014	1,029	218	154	91.6	66.9	97.9
11	International Steels	Gas	19	17	8733	2,257	271	1,335	553	57.2	11.6	22.8
12	Lucky Cement	Gas	5	5	1951	4,400	0	8	8	99.6	8.8	8.9
13	Lotte Chemical	Gas	14	14	Since August, 2023 based on withdrawal of NOC by SSGC, Lotte has not been selling any surplus electricity.							
	Sub-Total		3,146	2,911	4,522,500	-	-	-	-	-	-	-
	Grand Total (NTDC+KE)		25,653	22,588	33,897,620	-	-	-	-	-	-	-

* The availability factor of KGTPS and SGTPS, as reported by KE, primarily accounts for outages due to maintenance or faults. It is important to note that these plants faced fuel supply issues during the period. The reported availability should be interpreted accordingly.

TABLE-3: ASSESSMENT OF POWER PLANTS PERFORMANCE (JULY TO SEPTEMBER, 2024)–THERMAL (NTDC SYSTEM)

S. No.	Name of Power Plants	Main Fuel	Inst. Cap. (MW)	Ref. Cap. (MW)	Net Gen. (MWh)	Service Hours	Standby Hours	Planned Outage Hours	Unplanned Outage Hours	Availability Factor (%)	Net Capacity Factor (%)	Net Output Factor (%)
1	Liberty Power	RFO	202	196	23,596	147	2,059	0	2	99.9	5.5	81.9
2	PakGen	RFO	365	350	1,809	11	2,197	0	0	100.0	0.2	47.0
3	Lal Pir	RFO	362	350	0	0	2,208	0	0	100.0	0.0	0.0
4	Atlas Power	RFO	224	214	15,219	85	2,122	0	0	100.0	3.2	83.7
5	Nishat Power	RFO	202	195	28,408	157	2,032	19	0	99.1	6.6	92.8
6	Nishat Chunian	RFO	202	196	8,054	47	2,159	1	1	99.9	1.9	87.4
7	Saba Power	RFO	136	125	0	0	2,208	0	0	100.0	0.0	0.0
8	HUBCO Narowal	RFO	214	214	9,366	50	2,158	0	0	100.0	2.0	87.5
9	Attock Gen.	RFO	165	156	22,727	160	2,047	0	1	100.0	6.6	91.1
10	Hub	RFO	1,292	1,200	15,051	126	1,939	143	0	93.5	0.6	10.0
11	Kohinoor Energy	RFO	131	124	22,716	296	1,912	0	0	100.0	8.3	61.9
12	Bhikki	RLNG	1,231	1,163	1,654,263	2,115	93	0	0	100.0	64.4	67.3
13	Balloki	RLNG	1,276	1,165	1,662,592	1,760	403	0	45	98.0	64.6	81.1
14	Haveli Bahadur Shah	RLNG	1,277	1,172	1,975,666	2,011	53	0	144	93.5	76.3	83.8
15	Sapphire Electric	RLNG	235	202	138,461	989	1,199	0	20	99.1	31.0	69.3
16	Rousch Power	RLNG	450	395	61,633	314	1,894	0	91	100.0	7.1	49.7
17	FKPCL	RLNG	170	151	36,459	323	1,883	0	2	99.9	10.9	74.8
18	Orient Power	RLNG	225	203	186,928	1,295	899	0	14	99.4	41.7	71.1
19	Saif Power	RLNG	225	204	100,409	808	1,400	0	0	100.0	22.3	60.9
20	Halmore Power	RLNG	225	200	178,264	1,238	746	0	224	89.9	40.4	72.0
21	Nandipur Power Plant	RLNG	567	500	488,274	1,447	758	0	3	99.9	44.2	67.5
22	Punjab Thermal	RLNG	1,263	1,243	661,389	1,319	398	0	491	77.8	24.1	40.3
23	Foundation Power	N.Gas	179	168	296,077	2,123	9	0	76	96.6	79.8	83.0
24	TNB Liberty	N.Gas	235	212	327,396	2,025	143	0	40	98.2	69.9	76.3
25	Uch	N.Gas	586	547	1,013,370	2,067	123	0	18	99.2	83.9	89.6
26	Uch-II Power	N.Gas	404	372	585,187	1,865	318	0	25	98.9	71.2	84.3
27	Engro Powergen Qadirpur	N.Gas	227	212	212,522	2,186	17	0	5	99.8	45.4	45.9
28	Guddu 747	N.Gas	747	721	654,206	974	278	184	772	56.7	41.1	93.2
29	TPS Muzaffargarh	RFO/RLNG	1,350	450	0	0	1,472	0	736	66.7	0.0	0.0
30	TPS Jamshoro	RFO/RLNG	880	300	0	0	1,104	0	1,104	50.0	0.0	0.0
31	Engro Power Thar	Coal	660	603	975,329	1,922	22	264	0	88.0	73.3	84.2
32	Port Qasim	Coal	1,320	1,243	1,133,050	1,256	952	0	0	100.0	41.3	72.6
33	Sahiwal Coal	Coal	1,320	1,244	1,206,775	1,361	846	2	0	100.0	43.9	71.3
34	China Power Hub Coal	Coal	1,320	1,249	140,782	191	2,016	0	0	100.0	5.1	59.0
35	Lucky Electric Power	Coal	660	605	486,079	1,208	957	0	43	98.1	36.4	66.5
36	Thal Nova	Coal	330	303	533,396	2,136	48	0	24	98.9	79.7	82.4
37	Thar Energy	Coal	330	300	404,676	1,622	51	0	536	75.8	61.1	83.2
38	Thar Coal Block-1	Coal	1,320	1,230	2,159,215	1,943	0	0	265	88.0	79.5	90.3
	Sub-Total	-	22,507	19,677	17,419,342	-	-	-	-	-	-	-

TABLE-4: ASSESSMENT OF POWER PLANTS PERFORMANCE (JULY TO SEPTEMBER, 2024) – THERMAL (KE SYSTEM)

S. No.	Name of Power Plants	Main Fuel	Inst. Cap. (MW)	Ref. Cap. (MW)	Net Gen. (MWh)	Service Hours	Standby Hours	Planned Outage Hours	Unplanned Outage Hours	Availability Factor (%)	Net Capacity Factor (%)	Net Output Factor (%)
1	BQPS-I	RFO/RLNG	840	730	230,058	591	1,166	137	314	79.6	14.3	53.3
2	BQPS-II	RLNG	572	526	801,771	2,055	153	0	0	100.0	69.0	74.2
3	BQPS-III	RLNG	942	918	1,472,586	2,150	14	31	13	98.0	72.7	74.6
4	KCCPP	RLNG/HSD	248	227	95,115	887	1,242	33	46	96.4	19.0	47.2
5	KGTPS	RLNG	107	96	1,844	19	2,181	7	1	99.6*	0.9	101.1
6	SGTPS	RLNG	107	96	0	0	2,184	0	24	98.9*	0.0	0.0
7	Gul Ahmed Energy	RFO	136	128	60,653	508	1,523	136	41	92.0	21.5	93.3
8	FPCL	Coal	52	52	109,898	2,023	0	0	185	91.6	95.7	104.5
9	Sindh Nooriabad-I	Gas	52	51	75,338	1,518	275	334	81	81.2	66.9	97.3
10	Sindh Nooriabad-II	Gas	52	51	84,454	1,698	261	147	102	88.7	75.0	97.5
11	International Steels	Gas	19	17	4,716	1,072	271	312	553	60.8	12.6	25.9
12	Lucky Cement	Gas	5	5	1,120	2,206	0	0	2	99.9	10.1	10.2
13	Lotte Chemical	Gas	14	14	Since August, 2023 based on withdrawal of NOC by SSGC, Lotte has not been selling any surplus electricity.							
	Sub-Total		3,146	2,911	2,937,553	-	-	-	-	-	-	-
	Grand Total (NTDC+KE)		25,653	22,588	20,356,895	-	-	-	-	-	-	-

TABLE-5: ASSESSMENT OF POWER PLANTS PERFORMANCE (OCTOBER TO DEC., 2024) – THERMAL (NTDC SYSTEM)

S. No.	Name of Power Plants	Main Fuel	Inst. Cap. (MW)	Ref. Cap. (MW)	Net Gen. (MWh)	Service Hours	Standby Hours	Planned Outage Hours	Unplanned Outage Hours	Availability Factor (%)	Net Capacity Factor (%)	Net Output Factor (%)
1	Liberty Power	RFO	202	196	43	0	2,191	17	0	99.2	0.0	69.3
2	PakGen	RFO	365	350	0	0	1,488	720	0	67.4	0.0	0.0
3	Lal Pir	RFO	362	350	0	0	96	720	0	4.3	0.0	0.0
4	Atlas Power	RFO	224	214	0	0	360	0	0	16.3	0.0	0.0
5	Nishat Power	RFO	202	195	1,842	10	2,114	17	67	96.2	0.4	91.3
6	Nishat Chunian	RFO	202	196	395	3	2,178	3	24	98.8	0.1	80.7
7	Saba Power	RFO	136	125	0	0	408	0	0	18.5	0.0	0.0
8	HUBCO Narowal	RFO	214	214	238	1	2,176	31	0	98.6	0.1	87.0
9	Attock Gen.	RFO	165	156	1,335	9	2,168	29	1	98.6	0.4	91.2
10	Hub	RFO	1,292	1,200	0	0	192	66	0	8.7	0.0	0.0
11	Kohinoor Energy	RFO	131	124	783	10	2,198	0	0	100.0	0.3	61.7
12	Bhikki	RLNG	1,231	1,163	1,097,606	1,336	869	0	3	99.9	42.7	70.6
13	Balloki	RLNG	1,276	1,165	1,569,439	1,493	708	0	7	99.7	61.0	90.2
14	Haveli Bahadur Shah	RLNG	1,277	1,172	1,569,323	1,587	194	0	427	80.7	60.6	84.3
15	Sapphire Electric	RLNG	235	202	0	0	1,752	456	0	79.3	0.0	0.0
16	Rousch Power	RLNG	450	395	885	11	1,789	408	0	81.5	0.1	21.1
17	FKPCL	RLNG	170	151	0	0	1,848	360	0	83.7	0.0	0.0
18	Orient Power	RLNG	225	203	24,467	154	1,493	528	33	74.6	5.5	78.3
19	Saif Power	RLNG	225	204	14,800	107	1,645	456	0	79.3	3.3	68.1
20	Halmore Power	RLNG	225	200	12,006	77	1,743	360	4	82.4	2.7	78.2
21	Nandipur Power Plant	RLNG	567	500	28,016	87	2,121	0	0	100.0	2.5	64.3
22	Punjab Thermal	RLNG	1,263	1,243	207,266	535	1,688	0	9	100.7	7.6	31.2
23	Foundation Power	N.Gas	179	168	279,996	2,088	0	38	82	94.6	75.5	79.8
24	TNB Liberty	N.Gas	235	212	246,884	1,438	583	0	187	91.5	52.7	81.0
25	Uch	N.Gas	586	547	798,715	1,590	113	470	35	77.1	66.1	91.9
26	Uch-II Power	N.Gas	404	372	606,633	1,920	276	0	12	99.5	73.9	85.0
27	Engro Powergen Qadirpur	N.Gas	227	212	198,849	2,008	28	154	19	92.2	42.5	46.7
28	Guddu 747	N.Gas	747	721	512,700	813	5	0	1366	37.1	32.2	87.4
29	TPS Muzaffargarh	RFO/RLNG	1,350	450	0	0	1,468	0	740	66.5	0.0	0.0
30	TPS Jamshoro	RFO/RLNG	880	300	0	0	942	162	1104	42.7	0.0	0.0
31	Engro Power Thar	Coal	660	603	1,010,566	1,887	321	0	0	100.0	75.9	88.8
32	Port Qasim	Coal	1,320	1,243	725,714	909	1,299	0	0	100.0	26.4	64.2
33	Sahiwal Coal	Coal	1,320	1,244	373,769	474	1,101	630	3	71.3	13.6	63.4
34	China Power Hub Coal	Coal	1,320	1,249	133,345	122	2,086	0	0	100.0	4.8	87.6
35	Lucky Electric Power	Coal	660	605	229,539	581	1,620	0	7	99.7	17.2	65.3
36	Thal Nova	Coal	330	303	370,551	1,599	0	609	0	72.4	55.4	76.5
37	Thar Energy	Coal	330	300	367,799	1,514	694	0	0	100.0	55.5	81.0
38	Thar Coal Block-1	Coal	1,320	1,230	1,572,277	1,374	125	669	39	67.9	57.9	93.0
	Sub-Total	-	22,507	19,677	11,955,778	-	-	-	-	-	-	-

TABLE-6: ASSESSMENT OF POWER PLANTS PERFORMANCE (OCTOBER TO DEC., 2024) – THERMAL (KE SYSTEM)

S. No.	Name of Power Plants	Main Fuel	Inst. Cap. (MW)	Ref. Cap. (MW)	Net Gen. (MWh)	Service Hours	Standby Hours	Planned Outage Hours	Unplanned Outage Hours	Availability Factor (%)	Net Capacity Factor (%)	Net Output Factor (%)
1	BQPS-I	RFO/RLNG	840	730	32423	95	1,668	118	31	79.8	2.0	46.7
2	BQPS-II	RLNG	572	526	323710	1,124	1,084	0	0	100.0	27.9	54.8
3	BQPS-III	RLNG	942	918	971685	1,463	219	441	84	76.2	47.9	72.3
4	KCCPP	RLNG/HSD	248	227	29015	544	1,650	0	0	99.4	5.8	23.5
5	KGTPS	RLNG	107	96	2420	58	2,150	0	0	100.0	1.1	43.6
6	SGTPS	RLNG	107	96	0	0	2,208	0	0	100.0	0.0	0.0
7	Gul Ahmed Energy	RFO	136	128	12614	108	596	88	0	88.8	12.4	91.1
8	FPCL	Coal	52	52	74779	1,397	0	0	811	63.3	65.1	102.9
9	Sindh Nooriabad-I	Gas	52	51	67345	1,351	634	173	50	89.9	59.8	97.7
10	Sindh Nooriabad-II	Gas	52	51	66108	1,316	768	71	52	94.4	58.7	98.5
11	International Steels	Gas	19	17	4017	1,185	0	1,023	0	53.7	10.7	19.9
12	Lucky Cement	Gas	5	5	831	2,194	0	8	6	99.4	7.5	7.6
13	Lotte Chemical	Gas	14	14	Since August, 2023 based on withdrawal of NOC by SSGC, Lotte has not been selling any surplus electricity.							
	Sub-Total		3,146	2,911	1,584,947	-	-	-	-	-	-	-
	Grand Total (NTDC+KE)		25,653	22,588	13,540,725	-	-	-	-	-	-	-

TABLE-7: ASSESSMENT OF POWER PLANTS PERFORMANCE (JULY TO DECEMBER, 2024) – HYDEL (NTDC SYSTEM)

S. No.	Name of Power Plants	Main Fuel	Inst. Cap. (MW)	Net Gen. (MWh)	Service Hours	Standby Hours	Planned Outage Hours	Unplanned Outage Hours	Availability Factor (%)	Net Capacity Factor (%)	Net Output Factor (%)
1	Allai Khwar	121	121	163,667	1,458	2,813	121	0	96.7	30.6	92.8
2	Chashma Hydel Power	184	184	515,471	3,641	51	276	445	83.6	63.4	76.9
3	Chichoki	13	13	13,828	1,937	2,266	155	58	95.2	24.1	54.9
4	Chitral Hydel Power	1	1	970	1,831	2,445	1	139	96.8	22.0	53.0
5	Daral Khwar Hydropower	37	37	69,214	4,388	0	7	21	99.4	42.4	42.6
6	Dargai	20	20	34,804	2,737	1,357	281	19	92.7	39.4	63.6
7	Duber Khwar Hydel Power	130	130	210,630	2,368	1,335	713	1	83.8	36.7	68.4
8	Ghazi Barotha	1,450	1,450	3,935,919	2,983	1,113	261	35	92.7	61.5	91.0
9	Golen Gol	108	108	94,731	1,960	1,811	586	35	85.4	19.9	44.7
10	Gomal Zam	17	17	14,601	1,157	1	1,053	2,204	26.2	19.4	74.2
11	Gulpur	100	100	99,288	1,859	2,180	376	0	91.5	22.5	53.4
12	Jabban Hydel Power	22	22	71,414	3,828	293	266	29	93.3	73.5	84.8
13	Jagran	30	30	60,487	4,127	0	142	147	93.4	45.7	48.9
14	Jinnah Hydel Power	96	36	72,584	1,574	24	76	2,744	36.2	45.7	128.1
15	Karot	720	720	1,126,224	2,350	2,066	0	0	100.0	35.4	66.6
16	Khan Khwar Hydel Power	72	72	80,278	1,744	2,306	359	0	91.7	25.2	63.9
17	Kurram Garhi	4	4	9,882	3,321	574	322	150	88.2	55.9	74.4
18	Malakand-III	84	81	103,576	1,873	2,530	0	13	99.7	29.0	68.3
19	Mangla Power	1,000	1,000	2,591,261	2,620	924	870	4	80.3	58.7	98.9
20	Nandipur Hydel Power	14	14	17,814	2,028	2,231	118	39	96.4	28.8	62.7
21	NJHPC	969	969	0	0	0	0	4,416	0.0	0.0	0.0
22	New Bong Escape	84	84	188,505	3,000	1,372	44	0	99.0	50.8	74.8
23	Patrind	147	147	268,327	2,304	1,930	183	0	95.9	41.3	79.2
24	Ranolia	17	17	0	0	0	0	4,416	0.0	0.0	0.0
25	Rasul Hydel Power	22	22	24,697	2,248	814	193	1,150	69.3	25.4	49.9
26	Renala	1	1	930	3,805	529	24	34	98.1	21.1	24.4
27	Shadiwal Hydel Power	14	14	20,264	2,256	2,170	2	0	100.2	32.8	64.2
28	Suki Kinari	884	883	538,528	1,702	848	66	0	57.7	13.8	35.8
29	Tarbela	3,478	3,478	9,048,748	3,422	727	255	4	94.0	58.9	76.0
30	Tarbela 4 th Extension	1,410	1,410	3,581,165	2,854	1,180	372	10	91.3	57.5	89.0
31	Warsak Hydel Power	243	243	408,625	2,188	476	1,694	60	60.3	38.1	76.9
Total		11,492	11,428	23,366,432	-	-	-	-	-	-	-

* The above table indicates that several hydel plants remained in standby mode for a significant duration during the period from July to September, 2024. In this regard, reasons were sought from these hydel plants. In response, they stated that the primary reason for being in standby mode was due to hydrology constraints. The plants require adequate inflow to operate all units simultaneously. During this period, the inflow was frequently below the level needed for full operation, resulting in some units being placed on standby.

TABLE-8: ASSESSMENT OF POWER PLANTS PERFORMANCE (JULY TO SEPTEMBER, 2024) – HYDEL (NTDC SYSTEM)

S. No.	Name of Power Plants	Main Fuel	Inst. Cap. (MW)	Net Gen. (MWh)	Service Hours	Standby Hours	Planned Outage Hours	Unplanned Outage Hours	Availability Factor (%)	Net Capacity Factor (%)	Net Output Factor (%)
1	Allai Khwar	121	121	122,525	1,101	1,101	6	0	99.7	45.9	92.0
2	Chashma Hydel Power	184	184	246,486	1,895	0	93	217	85.8	60.7	70.7
3	Chichoki	13	13	9,614	1,334	811	5	58	97.1	33.5	55.4
4	Chitral Hydel Power	1	1	473	912	1,202	1	93	95.7	21.4	51.9
5	Daral Khwar Hydropower	37	37	53,390	2,197	0	6	5	99.5	65.4	65.7
6	Dargai	20	20	19,154	1,543	616	31	19	97.8	43.4	62.1
7	Duber Khwar Hydel Power	130	130	188,796	2,003	194	11	0	99.5	65.8	72.5
8	Ghazi Barotha	1,450	1,450	2,156,470	1,646	516	11	35	97.9	67.4	90.4
9	Golen Gol	108	108	64,411	1,180	992	1	35	98.4	27.0	50.5
10	Gomal Zam	17	17	3,007	244	0	1,044	920	11.1	8.0	72.5
11	Gulpur	100	100	92,374	1,510	698	0	0	100.0	41.8	61.2
12	Jabban Hydel Power	22	22	40,517	2,126	42	17	24	98.2	83.4	86.6
13	Jagran	30	30	47,456	1,993	0	121	94	90.3	71.6	79.4
14	Jinnah Hydel Power	96	36	25,591	801	16	5	1,388	37.0	32.2	88.7
15	Karot	720	720	889,251	1,765	443	0	0	100.0	55.9	70.0
16	Khan Khwar Hydel Power	72	72	60,468	1,393	807	8	0	99.6	38.0	60.3
17	Kurram Garhi	4	4	4,967	1,655	398	0	107	93.0	56.2	75.0
18	Malakand-III	84	81	71,201	1,159	1,038	0	11	99.5	39.8	75.8
19	Mangla Power	1,000	1,000	1,003,133	1,021	720	468	1	78.8	45.4	98.3
20	Nandipur Hydel Power	14	14	12,826	1,425	738	6	39	98.0	41.5	64.3
21	NJHPC	969	969	0	0	0	0	2,208	0.0	0.0	0.0
22	New Bong Escape	84	84	59,478	1,070	1,137	1	0	100.0	32.1	66.2
23	Patrind	147	147	205,493	1,641	392	175	0	92.1	63.3	85.2
24	Ranolia	17	17	0	0	0	0	2,208	0.0	0.0	0.0
25	Rasul Hydel Power	22	22	14,368	1,305	801	5	98	95.4	29.6	50.0
26	Renala	1	1	546	1,639	529	6	34	98.2	24.7	33.3
27	Shadiwal Hydel Power	14	14	9,110	1,140	1,080	0	0	100.5	29.5	57.1
28	Suki Kinari	884	883	255,312	408	0	0	0	18.5	13.1	70.9
29	Tarbela	3,478	3,478	6,874,203	2,124	49	25	3	98.4	89.5	93.1
30	Tarbela 4 th Extension	1,410	1,410	2,745,742	2,080	74	44	10	97.6	88.2	93.6
31	Warsak Hydel Power	243	243	264,408	1,349	54	746	59	63.5	49.3	80.7
	Total	11,492	11,428	15,540,770	-	-	-	-	-	-	-

TABLE-9: ASSESSMENT OF POWER PLANTS PERFORMANCE (OCTOBER TO DEC., 2024) – HYDEL (NTDC SYSTEM)

S. No.	Name of Power Plants	Main Fuel	Inst. Cap. (MW)	Net Gen. (MWh)	Service Hours	Standby Hours	Planned Outage Hours	Unplanned Outage Hours	Availability Factor (%)	Net Capacity Factor (%)	Net Output Factor (%)
1	Allai Khwar	121	121	41,142	357	1,712	115	0	93.7	15.4	95.4
2	Chashma Hydel Power	184	184	268,985	1,746	51	183	228	81.4	66.2	83.7
3	Chichoki	13	13	4,214	603	1,455	150	0	93.2	14.7	53.7
4	Chitral Hydel Power	1	1	497	919	1,243	0	46	97.9	22.5	54.1
5	Daral Khwar Hydropower	37	37	15,824	2,191	0	1	16	99.2	19.4	19.5
6	Dargai	20	20	15,650	1,194	741	250	0	87.6	35.4	65.5
7	Duber Khwar Hydel Power	130	130	21,834	365	1,141	702	1	68.2	7.6	46.0
8	Ghazi Barotha	1,450	1,450	1,779,449	1,337	597	250	0	87.6	55.6	91.8
9	Golen Gol	108	108	30,320	780	819	585	0	72.4	12.7	36.0
10	Gomal Zam	17	17	11,594	913	1	9	1,284	41.4	30.9	74.7
11	Gulpur	100	100	6,914	349	1,482	376	0	82.9	3.1	19.8
12	Jabban Hydel Power	22	22	30,897	1,702	251	249	5	88.5	63.6	82.5
13	Jagran	30	30	13,031	2,134	0	21	53	96.6	19.7	20.4
14	Jinnah Hydel Power	96	36	46,993	773	8	71	1,356	35.4	59.1	168.8
15	Karot	720	720	236,973	585	1,623	0	0	100.0	14.9	56.2
16	Khan Khwar Hydel Power	72	72	19,810	351	1,499	351	0	83.8	12.5	78.5
17	Kurram Garhi	4	4	4,915	1,666	176	322	43	83.5	55.6	73.7
18	Malakand-III	84	81	32,375	714	1,492	0	2	99.9	18.1	56.0
19	Mangla Power	1,000	1,000	1,588,128	1,599	204	402	3	81.7	71.9	99.3
20	Nandipur Hydel Power	14	14	4,988	603	1,493	112	0	94.9	16.1	59.0
21	NJHPC	969	969	-	0	0	0	2,208	0.0	0.0	0.0
22	New Bong Escape	84	84	129,027	1,930	235	43	0	98.0	69.6	79.6
23	Patrind	147	147	62,834	663	1,538	8	0	99.7	19.4	64.5
24	Ranolia	17	17	-	0	0	0	2,208	0.0	0.0	0.0
25	Rasul Hydel Power	22	22	10,329	943	13	188	1,052	43.3	21.3	49.8
26	Renala	1	1	384	2,166	0	18	0	98.1	17.4	17.7
27	Shadiwal Hydel Power	14	14	11,154	1,116	1,090	2	0	99.9	36.1	71.4
28	Suki Kinari	884	883	283,216	1,294	848	66	0	97.0	14.5	24.8
29	Tarbela	3,478	3,478	2,174,545	1,298	678	230	1	89.5	28.3	48.2
30	Tarbela 4 th Extension	1,410	1,410	835,423	774	1,106	328	0	85.1	26.8	76.5
31	Warsak Hydel Power	243	243	144,217	839	422	948	1	57.1	26.9	70.8
	Total	11,492	11,428	7,825,662	-	-	-	-	-	-	-

TABLE-10: ASSESSMENT OF POWER PLANTS PERFORMANCE (JULY TO DEC., 2024) – RENEWABLE (NTDC SYSTEM)

S. No.	Name of Power Plants	Main Fuel	Inst. Cap. (MW)	Ref. Cap. (MW)	Net Gen. (MWh)	Service Hours	Standby Hours	Planned Outage Hours	Unplanned Outage Hours	Availability Factor (%)	Net Capacity Factor (%)	Net Output Factor (%)
1	Sapphire Wind	Wind	53	50	33,776	4,118	172	29	97	97.1	15.3	16.4
2	Zephyr Wind	Wind	50	50	60,380	4,340	43	33	0	99.3	27.3	27.8
3	Hydrochina Dawood	Wind	50	50	39,348	4,362	24	9	21	99.3	17.8	18.0
4	Foundation Wind-1	Wind	50	50	44,728	4,395	0	7	14	99.5	20.3	20.4
5	Foundation Wind-2	Wind	50	50	50,878	4,402	0	0	14	99.7	23.0	23.1
6	Sachal Wind	Wind	50	50	44,570	4,375	0	18	24	99.1	20.2	20.4
7	Metro Power	Wind	50	50	49,963	4,001	403	12	0	99.7	22.6	25.0
8	Metro Wind	Wind	60	60	82,467	3,613	719	20	64	98.1	31.1	38.0
9	UEP Wind	Wind	99	99	71,296	3,446	942	0	27	99.4	16.3	20.9
10	Artistic Energy	Wind	50	50	70,116	4,246	170	0	0	100.0	31.8	33.0
11	Jhimpir Power	Wind	50	50	48,926	3,886	530	0	0	100.0	22.2	25.2
12	Hawa Energy	Wind	50	50	49,198	3,888	523	4	0	99.9	22.3	25.3
13	Tricon Boston-A	Wind	50	50	53,119	3,885	478	13	40	98.8	24.1	27.3
14	Tricon Boston-B	Wind	50	50	51,226	3,899	481	12	23	99.2	23.2	26.3
15	Tricon Boston-C	Wind	50	50	51,131	3,877	497	10	32	99.1	23.2	26.4
16	Tenaga Generasi	Wind	50	50	41,037	4,016	483	1	16	101.9	18.6	20.4
17	FFCEL Wind	Wind	50	50	35,533	4,226	0	24	166	95.7	16.1	16.8
18	3 Gorges 1st Wind	Wind	50	50	41,745	4,410	0	0	6	99.9	18.9	18.9
19	3 Gorges 2nd Wind	Wind	50	50	38,103	4,392	24	0	0	100.0	17.3	17.3
20	3 Gorges 3rd Wind	Wind	50	50	39,770	4,392	24	0	0	100.0	18.0	18.1
21	Yunus Energy	Wind	50	50	36,641	3,945	471	0	0	100.0	16.6	18.6
22	ACT2 Wind	Wind	30	30	28,090	3,556	776	0	84	98.1	21.2	26.3
23	Master Wind	Wind	50	50	36,672	3,836	496	9	75	98.1	16.6	19.1
24	Gul Ahmed Wind	Wind	50	50	36,715	3,969	437	10	0	99.8	16.6	18.5
25	Lucky Renewables	Wind	50	50	55,860	4,088	316	12	0	99.7	25.3	27.3
26	Master Green Energy	Wind	50	50	52,183	3,504	856	20	35	98.7	23.6	29.8
27	Zorlu Energy	Wind	56	56	46,614	3,513	134	25	744	82.6	18.8	23.7
28	ACT2 Wind	Wind	50	50	56,807	3,396	993	15	12	99.4	25.7	33.5
29	Artistic Wind	Wind	50	50	54,890	4,397	0	12	7	99.6	24.9	25.0
30	Indus Wind	Wind	50	50	59,237	4,036	366	14	0	99.7	26.8	29.4
31	Lakeside Energy	Wind	50	50	55,669	4,095	247	35	39	98.3	25.2	27.2
32	Liberty-I	Wind	50	50	51,225	3,830	557	13	15	99.4	23.2	26.7
33	DIN Energy	Wind	50	50	53,046	3,770	601	17	27	99.0	24.0	28.1
34	Gul Ahmed Electric	Wind	50	50	58,242	4,385	27	3	1	99.9	26.4	26.6
35	Liberty-II	Wind	50	50	52,227	3,836	536	11	34	99.0	23.7	27.2
36	NASDA Green	Wind	50	50	56,887	4,391	2	12	11	99.5	25.8	25.9

S. No.	Name of Power Plants	Main Fuel	Inst. Cap. (MW)	Ref. Cap. (MW)	Net Gen. (MWh)	Service Hours	Standby Hours	Planned Outage Hours	Unplanned Outage Hours	Availability Factor (%)	Net Capacity Factor (%)	Net Output Factor (%)
37	Quaid-e-Azam Solar	Solar	100	96	74,369	2,126	14	0	2,276	48.5	17.5	36.4
38	Appolo Solar	Solar	100	96	78,784	2,153	1,229	0	1,034	76.6	18.6	38.1
39	Atlas Solar	Solar	100	100	84,080	4,416	0	0	0	100.0	19.0	19.0
40	Best Green Energy	Solar	100	96	78,389	2,146	2,269	0	2	100.0	18.5	38.1
41	Crest Energy	Solar	100	96	79,846	2,146	2,269	0	1	100.0	18.8	38.8
42	Helios Power	Solar	50	50	46,701	2,213	2,217	0	11	100.3	21.2	42.2
43	HNDS	Solar	50	50	46,248	2,206	1,198	0	9	77.1	20.9	41.9
44	Meridian	Solar	50	50	46,878	2,205	1,199	0	9	77.1	21.2	42.5
45	AJ Power Plant	Solar	12	12	8,400	2,205	2,207	0	4	99.9	15.9	31.7
46	Harappa	Solar	18	18	14,069	4,416	0	0	0	100.0	17.7	17.7

S. No.	Name of Power Plants	Main Fuel	Inst. Cap. (MW)	Ref. Cap. (MW)	Net Gen. (MWh)	Service Hours	Standby Hours	Planned Outage Hours	Unplanned Outage Hours	Availability Factor (%)	Net Capacity Factor (%)	Net Output Factor (%)
47	Chanar	Baggase	22	22	2,810	189	0	4,227	0	4.3	2.9	67.7
48	RYKML	Baggase	40	24	24,756	1,498	10	2,872	36	34.2	23.4	68.8
49	JDW-II	Baggase	26	24	97,832	4,170	0	222	23	94.4	92.3	97.7
50	JDW-III	Baggase	27	24	88,821	3,854	10	546	6	87.5	83.8	96.0
51	Chiniot Power	Baggase	63	63	77,376	2,463	6	1,911	12	55.9	27.8	49.9
52	Fatima Energy	Baggase	118.8	108.1	0	1,815	1,218	1,342	41	68.7	0.0	0.0
53	Hamza Sugar Mills	Baggase	15	15	27,050	2,148	12	2,242	14	48.9	40.8	84.0
54	Thal Industries	Baggase	20	20	15,630	907	0	1,288	2,221	20.5	17.7	86.2
55	Al-Moiz Industries	Baggase	36	36	4,960	902	0	0	3,514	20.4	3.1	15.3
Sub-Total			2,896	2,845	2,685,313	-	-	-	-	-	-	-

TABLE-11: ASSESSMENT OF POWER PLANTS PERFORMANCE (JULY TO DEC., 2024) – RENEWABLE (KE SYSTEM)

S. No.	Name of Power Plants	Main Fuel	Inst. Cap. (MW)	Ref. Cap. (MW)	Net Gen. (MWh)	Service Hours	Standby Hours	Planned Outage Hours	Unplanned Outage Hours	Availability Factor (%)	Net Capacity Factor (%)	Net Output Factor (%)
1	Oursun Pakistan	Solar	50	50	41,127	2,089	2,324	0	0	100.0	18.6	39.4
2	Gharo Solar	Solar	50	50	43,888	4,416	0	0	0	100.0	19.9	19.9
Sub-Total			100	100	85,015	-	-	-	-	-	-	-
Grand Total			2,996	2,945	2,770,329	-	-	-	-	-	-	-

*The above table indicates that several solar plants remained in standby mode for a significant duration during the period from July to September, 2024. In this regard, reasons were sought from these solar plants. In response, they stated that the standby hours occur because there is no solar irradiance after sunset, which means the solar panels cannot generate power. During this time, the system automatically transitions to standby mode to conserve energy and remain ready to resume operation once irradiance levels rise again.

TABLE-12: ASSESSMENT OF POWER PLANTS PERFORMANCE (JULY TO SEPT., 2024) – RENEWABLE (NTDC SYSTEM)

S. No.	Name of Power Plants	Main Fuel	Inst. Cap. (MW)	Ref. Cap. (MW)	Net Gen. (MWh)	Service Hours	Standby Hours	Planned Outage Hours	Unplanned Outage Hours	Availability Factor (%)	Net Capacity Factor (%)	Net Output Factor (%)
1	Sapphire Wind	Wind	53	50	23,581	2,188	0	15	5	99.1	21.4	21.6
2	Zephyr Wind	Wind	50	50	43,781	2,154	21	33	0	98.5	39.7	40.7
3	Hydrochina Dawood	Wind	50	50	28,955	2,178	0	9	21	98.6	26.2	26.6
4	Foundation Wind-1	Wind	50	50	33,542	2,198	0	0	10	99.5	30.4	30.5
5	Foundation Wind-2	Wind	50	50	36,420	2,198	0	0	10	99.5	33.0	33.1
6	Sachal Wind	Wind	50	50	29,458	2,188	0	15	5	99.1	26.7	26.9
7	Metro Power	Wind	50	50	32,015	2,142	66	0	0	100.0	29.0	29.9
8	Metro Wind	Wind	60	60	57,504	1,791	376	11	30	98.1	43.4	53.5
9	UEP Wind	Wind	99	99	50,432	1,832	356	0	20	99.1	23.1	27.8
10	Artistic Energy	Wind	50	50	46,999	2,078	130	0	0	100.0	42.6	45.2
11	Jhimpir Power	Wind	50	50	33,288	2,171	37	0	0	100.0	30.2	30.7
12	Hawa Energy	Wind	50	50	31,793	2,166	37	4	0	99.8	28.8	29.4
13	Tricon Boston-A	Wind	50	50	37,980	1,874	314	1	19	99.1	34.4	40.5
14	Tricon Boston-B	Wind	50	50	35,967	1,882	311	0	14	99.3	32.6	38.2
15	Tricon Boston-C	Wind	50	50	35,319	1,874	319	0	16	99.3	32.0	37.7
16	Tenaga Generasi	Wind	50	50	29,980	2,208	83	1	16	103.8	27.2	27.2
17	FFCEL Wind	Wind	50	50	24,205	2,139	0	0	69	96.9	21.9	22.6
18	3 Gorges 1st Wind	Wind	50	50	28,824	2,208	0	0	0	100.0	26.1	26.1
19	3 Gorges 2nd Wind	Wind	50	50	25,914	2,208	0	0	0	100.0	23.5	23.5
20	3 Gorges 3rd Wind	Wind	50	50	26,880	2,208	0	0	0	100.0	24.3	24.3
21	Yunus Energy	Wind	50	50	24,570	2,141	67	0	0	100.0	22.3	23.0
22	ACT2 Wind	Wind	30	30	19,972	2,007	149	0	52	97.6	30.2	33.2
23	Master Wind	Wind	50	50	25,495	1,862	318	1	27	98.7	23.1	27.4
24	Gul Ahmed Wind	Wind	50	50	24,499	2,139	69	0	0	100.0	22.2	22.9
25	Lucky Renewables	Wind	50	50	38,703	2,181	27	0	0	100.0	35.1	35.5
26	Master Green Energy	Wind	50	50	36,479	1,981	199	8	20	98.7	33.0	36.8
27	Zorlu Energy	Wind	56	56	32,391	1,709	99	6	394	81.9	26.2	33.8
28	ACT2 Wind	Wind	50	50	40,150	2,010	188	0	10	99.5	36.4	39.9
29	Artistic Wind	Wind	50	50	37,723	2,195	0	7	6	99.4	34.2	34.4
30	Indus Wind	Wind	50	50	40,956	2,149	48	11	0	99.5	37.1	38.1
31	Lakeside Energy	Wind	50	50	38,626	2,129	48	8	23	98.6	35.0	36.3
32	Liberty-I	Wind	50	50	35,191	2,136	58	0	13	99.4	31.9	33.0
33	DIN Energy	Wind	50	50	35,360	2,072	118	2	15	99.2	32.0	34.1
34	Gul Ahmed Electric	Wind	50	50	39,930	2,202	2	3	1	99.8	36.2	36.3
35	Liberty-II	Wind	50	50	36,434	2,135	52	0	22	99.0	33.0	34.1
36	NASDA Green	Wind	50	50	39,387	2,202	2	3	1	99.8	35.7	35.8

S. No.	Name of Power Plants	Main Fuel	Inst. Cap. (MW)	Ref. Cap. (MW)	Net Gen. (MWh)	Service Hours	Standby Hours	Planned Outage Hours	Unplanned Outage Hours	Availability Factor (%)	Net Capacity Factor (%)	Net Output Factor (%)
37	Quaid-e-Azam Solar	Solar	100	96	40,262	1,159	14	0	1,035	53.1	19.0	36.2
38	Appolo Solar	Solar	100	96	42,672	1,175	0	0	1,033	53.2	20.1	37.8
39	Atlas Solar	Solar	100	100	50,217	2,208	0	0	0	100.0	22.7	22.7
40	Best Green Energy	Solar	100	96	42,295	1,171	1,036	0	1	100.0	20.0	37.6
41	Crest Energy	Solar	100	96	43,307	1,172	1,035	0	1	100.0	20.4	38.5
42	Helios Power	Solar	50	50	27,223	1,194	1,004	0	11	99.5	24.7	45.6
43	HNDS	Solar	50	50	27,007	1,196	0	0	9	54.2	24.5	45.2
44	Meridian	Solar	50	50	27,305	1,196	0	0	9	54.2	24.7	45.7
45	AJ Power Plant	Solar	12	12	4,698	1,190	1,015	0	3	99.9	17.7	32.9
46	Harappa	Solar	18	18	8,810	2,208	0	0	0	100.0	22.2	22.2

S. No.	Name of Power Plants	Main Fuel	Inst. Cap. (MW)	Ref. Cap. (MW)	Net Gen. (MWh)	Service Hours	Standby Hours	Planned Outage Hours	Unplanned Outage Hours	Availability Factor (%)	Net Capacity Factor (%)	Net Output Factor (%)
47	Chanar	Baggase	22	22	0	0	0	2,208	0	0.0	0.0	0.0
48	RYKML	Baggase	40	24	9,145	691	0	1,481	36	31.3	17.3	55.1
49	JDW-II	Baggase	26	24	52,694	2,172	0	36	0	98.4	99.4	101.1
50	JDW-III	Baggase	27	24	43,072	1,818	2	384	4	82.4	81.3	98.7
51	Chiniot Power	Baggase	63	63	30,767	1,109	0	1,073	2	50.2	22.1	44.0
52	Fatima Energy	Baggase	118.8	108.1	0	954	1,218	0	36	98.4	0.0	0.0
53	Hamza Sugar Mills	Baggase	15	15	0	0	0	2,208	0	0.0	0.0	0.0
54	Thal Industries	Baggase	20	20	0	0	0	0	2,208	0.0	0.0	0.0
55	Al-Moiz Industries	Baggase	36	36	0	0	0	0	2,208	0.0	0.0	0.0
	Sub-Total		2,896	2,845	1,688,181	-	-	-	-	-	-	-

TABLE-13: ASSESSMENT OF POWER PLANTS PERFORMANCE (JULY TO SEPT., 2024) – RENEWABLE (KE SYSTEM)

S. No.	Name of Power Plants	Main Fuel	Inst. Cap. (MW)	Ref. Cap. (MW)	Net Gen. (MWh)	Service Hours	Standby Hours	Planned Outage Hours	Unplanned Outage Hours	Availability Factor (%)	Net Capacity Factor (%)	Net Output Factor (%)
1	Oursun Pakistan	Solar	50	50	19,004	1,111	1,095	0	0	99.9	17.2	34.2
2	Gharo Solar	Solar	50	50	20,916	2,208	0	0	0	100.0	18.9	18.9
	Sub-Total		100	100	39,920	-	-	-	-	-	-	-
	Grand Total		2,996	2,945	1,728,101	-	-	-	-	-	-	-

TABLE-14: ASSESSMENT OF POWER PLANTS PERFORMANCE (OCTOBER TO DEC., 2024)–RENEWABLE (NTDC SYSTEM)

S. No.	Name of Power Plants	Main Fuel	Inst. Cap. (MW)	Ref. Cap. (MW)	Net Gen. (MWh)	Service Hours	Standby Hours	Planned Outage Hours	Unplanned Outage Hours	Availability Factor (%)	Net Capacity Factor (%)	Net Output Factor (%)
1	Sapphire Wind	Wind	53	50	10,195	1,930	172	14	92	95.2	9.2	10.6
2	Zephyr Wind	Wind	50	50	16,599	2,186	22	0	0	100.0	15.0	15.2
3	Hydrochina Dawood	Wind	50	50	10,393	2,184	24	0	0	100.0	9.4	9.5
4	Foundation Wind-1	Wind	50	50	11,185	2,197	0	7	4	99.5	10.1	10.2
5	Foundation Wind-2	Wind	50	50	14,459	2,204	0	0	4	99.8	13.1	13.1
6	Sachal Wind	Wind	50	50	15,112	2,187	0	3	19	99.0	13.7	13.8
7	Metro Power	Wind	50	50	17,947	1,859	337	12	0	99.5	16.3	19.3
8	Metro Wind	Wind	60	60	24,963	1,822	343	9	34	98.0	18.8	22.8
9	UEP Wind	Wind	99	99	20,864	1,614	586	0	7	99.7	9.5	13.1
10	Artistic Energy	Wind	50	50	23,117	2,168	40	0	0	100.0	20.9	21.3
11	Jhimpir Power	Wind	50	50	15,637	1,715	493	0	0	100.0	14.2	18.2
12	Hawa Energy	Wind	50	50	17,405	1,722	486	0	0	100.0	15.8	20.2
13	Tricon Boston-A	Wind	50	50	15,139	2,011	164	12	21	98.5	13.7	15.1
14	Tricon Boston-B	Wind	50	50	15,259	2,017	170	12	9	99.0	13.8	15.1
15	Tricon Boston-C	Wind	50	50	15,812	2,003	178	10	16	98.8	14.3	15.8
16	Tenaga Generasi	Wind	50	50	11,057	1,808	400	0	0	100.0	10.0	12.2
17	FFCEL Wind	Wind	50	50	11,327	2,087	0	24	97	94.5	10.3	10.9
18	3 Gorges 1st Wind	Wind	50	50	12,921	2,202.1	0	0	5.9	99.7	11.7	11.7
19	3 Gorges 2nd Wind	Wind	50	50	12,188	2,184	24	0	0	100.0	11.0	11.2
20	3 Gorges 3rd Wind	Wind	50	50	12,890	2,184	24	0	0	100.0	11.7	11.8
21	Yunus Energy	Wind	50	50	12,071	1,804	404	0	0	100.0	10.9	13.4
22	ACT2 Wind	Wind	30	30	8,118	1,549	627	0	32	98.6	12.3	17.5
23	Master Wind	Wind	50	50	11,177	1,974	178	8	48	97.5	10.1	11.3
24	Gul Ahmed Wind	Wind	50	50	12,215	1,830	368	10	0	99.5	11.1	13.4
25	Lucky Renewables	Wind	50	50	17,156	1,907	289	12	0	99.5	15.5	18.0
26	Master Green Energy	Wind	50	50	15,704	1,523	657	12	15	98.8	14.2	20.6
27	Zorlu Energy	Wind	56	56	14,223	1,804	35	19	350	83.3	11.5	14.1
28	ACT2 Wind	Wind	50	50	16,657	1,386	805	15	2	99.2	15.1	24.0
29	Artistic Wind	Wind	50	50	17,167	2,202	0	5	1	99.7	15.5	15.6
30	Indus Wind	Wind	50	50	18,281	1,887	318	3	0	99.9	16.6	19.4
31	Lakeside Energy	Wind	50	50	17,043	1,966	199	27	16	98.1	15.4	17.3
32	Liberty-I	Wind	50	50	16,035	1,694	499	13	2	99.3	14.5	18.9
33	DIN Energy	Wind	50	50	17,686	1,698	483	15	12	98.8	16.0	20.8
34	Gul Ahmed Electric	Wind	50	50	18,312	2,183	25	0	0	100.0	16.6	16.8
35	Liberty-II	Wind	50	50	15,793	1,701	484	11	12	98.9	14.3	18.6
36	NASDA Green	Wind	50	50	17,500	2,189	0	9	10	99.1	15.9	16.0

S. No.	Name of Power Plants	Main Fuel	Inst. Cap. (MW)	Ref. Cap. (MW)	Net Gen. (MWh)	Service Hours	Standby Hours	Planned Outage Hours	Unplanned Outage Hours	Availability Factor (%)	Net Capacity Factor (%)	Net Output Factor (%)
37	Quaid-e-Azam Solar	Solar	100	96	34,107	967	0	0	1,241	43.8	16.1	36.8
38	Appolo Solar	Solar	100	96	36,112	978	1,229	0	1	100.0	17.0	38.4
39	Atlas Solar	Solar	100	100	33,863	2,208	0	0	0	100.0	15.3	15.3
40	Best Green Energy	Solar	100	96	36,093	975	1,233	0	1	100.0	17.0	38.6
41	Crest Energy	Solar	100	96	36,538	974	1,234	0	0	100.0	17.2	39.1
42	Helios Power	Solar	50	50	19,478	1019	1,213	0	0	101.1	17.6	38.2
43	HNDS	Solar	50	50	19,242	1,010	1,198	0	0	100.0	17.4	38.1
44	Meridian	Solar	50	50	19,573	1,009	1,199	0	0	100.0	17.7	38.8
45	AJ Power Plant	Solar	12	12	3,702	1,015	1,192	0	1	100.0	14.0	30.4
46	Harappa	Solar	18	18	5,259	2,208	0	0	0	100.0	13.2	13.2

S. No.	Name of Power Plants	Main Fuel	Inst. Cap. (MW)	Ref. Cap. (MW)	Net Gen. (MWh)	Service Hours	Standby Hours	Planned Outage Hours	Unplanned Outage Hours	Availability Factor (%)	Net Capacity Factor (%)	Net Output Factor (%)
47	Chanar	Baggase	22	22	2,810	189	0	2,019	0	8.6	5.8	67.7
48	RYKML	Baggase	40	24	15,611	807	10	1,391	0	37.0	29.5	80.6
49	JDW-II	Baggase	26	24	45,138	1,998	0	186	23	90.5	85.2	94.1
50	JDW-III	Baggase	27	24	45,749	2,036	8	162	2	92.6	86.3	93.6
51	Chiniot Power	Baggase	63	63	46,610	1,354	6	838	10	61.6	33.5	54.6
52	Fatima Energy	Baggase	118.8	108.1	0	861	0	1,342	5	39.0	0.0	0.0
53	Hamza Sugar Mills	Baggase	15	15	27,050	2,148	12	34	14	97.8	81.7	84.0
54	Thal Industries	Baggase	20	20	15,630	907	0	1,288	13	41.1	35.4	86.2
55	Al-Moiz Industries	Baggase	36	36	4,960	902	0	0	1,306	40.9	6.2	15.3
	Sub-Total		2,896	2,845	997,133	-	-	-	-	-	-	-

TABLE-15: ASSESSMENT OF POWER PLANTS PERFORMANCE (OCTOBER TO DEC., 2024) – RENEWABLE (KE SYSTEM)

S. No.	Name of Power Plants	Main Fuel	Inst. Cap. (MW)	Ref. Cap. (MW)	Net Gen. (MWh)	Service Hours	Standby Hours	Planned Outage Hours	Unplanned Outage Hours	Availability Factor (%)	Net Capacity Factor (%)	Net Output Factor (%)
1	Oursun Pakistan	Solar	50	50	22,123	978	1,229	0	0	100.0	20	45.2
2	Gharo Solar	Solar	50	50	22,972	2,208	0	0	0	100.0	20.8	20.8
	Sub-Total		100	100	45,095	-	-	-	-	-	-	-
	Grand Total		2,996	2,945	1,042,228	-	-	-	-	-	-	-

TABLE-16: ASSESSMENT OF POWER PLANTS PERFORMANCE (JULY TO DECEMBER, 2024) – NUCLEAR

S. No.	Name of Power Plants	Inst. Cap. (MW)	Ref. Cap. (MW)	Net Gen. (MWh)	Service Hours	Standby Hours	Planned Outage Hours	Unplanned Outage Hours	Availability Factor (%)	Net Capacity Factor (%)	Net Output Factor (%)
1	K2	1,145	1,040	4,064,541	4,298	0	0	94	97.3	88.5	90.9
2	K3	1,145	1,040	2,375,517	2,558	0	1,648	210	57.9	51.7	89.3
3	Chashma C1	325	301	1,309,523	4,416	0	0	0	100.0	98.5	98.5
4	Chashma C2	325	315	923,781	3,090	0	1,326	0	70.0	66.4	94.9
5	Chashma C3	340	315	1,027,065	3,573	0	843	0	80.9	73.8	91.3
6	Chashma C4	340	315	1,235,508	4,083	0	333	0	92.5	88.8	96.1
Total		3,620	3,326	10,935,935	-	-	-	-	-	-	-

TABLE-17: ASSESSMENT OF POWER PLANTS PERFORMANCE (JULY TO SEPTEMBER, 2024) – NUCLEAR

S. No.	Name of Power Plants	Inst. Cap. (MW)	Ref. Cap. (MW)	Net Gen. (MWh)	Service Hours	Standby Hours	Planned Outage Hours	Unplanned Outage Hours	Availability Factor (%)	Net Capacity Factor (%)	Net Output Factor (%)
1	K2	1,145	1,040	2,022,683	2,114	0	0	94	95.7	88.1	92.0
2	K3	1,145	1,040	1,617,236	1,590	0	618	0	72.0	70.4	97.8
3	Chashma C1	325	301	649,124	2,208	0	0	0	100.0	97.7	97.7
4	Chashma C2	325	315	259,608	882	0	1,326	0	39.9	37.3	93.4
5	Chashma C3	340	315	654,939	2,208	0	0	0	100.0	94.2	94.2
6	Chashma C4	340	315	570,103	1,875	0	333	0	84.9	82.0	96.5
Total		3,620	3,326	5,773,693	-	-	-	-	-	-	-

TABLE-18: ASSESSMENT OF POWER PLANTS PERFORMANCE (OCTOBER TO DECEMBER, 2024) – NUCLEAR

S. No.	Name of Power Plants	Inst. Cap. (MW)	Ref. Cap. (MW)	Net Gen. (MWh)	Service Hours	Standby Hours	Planned Outage Hours	Unplanned Outage Hours	Availability Factor (%)	Net Capacity Factor (%)	Net Output Factor (%)
1	K2	1,145	1,040	2,041,858	2,184	0	0	0	98.9	88.9	89.9
2	K3	1,145	1,040	758,281	968	0	1,030	210	43.9	33.0	75.3
3	Chashma C1	325	301	660,399	2,208	0	0	0	100.0	99.4	99.4
4	Chashma C2	325	315	664,173	2,208	0	0	0	100.0	95.5	95.5
5	Chashma C3	340	315	372,126	1,365	0	843	0	61.8	53.5	86.5
6	Chashma C4	340	315	665,405	2,208	0	0	0	100.0	95.7	95.7
Total		3,620	3,326	5,162,242	-	-	-	-	-	-	-

DEFINITIONS AND ACRONYMS

1. **Installed Capacity:** The unit's total maximum potential generation capacity.
2. **Reference Capacity:** The maximum generating capability, adjusted for Initial Dependable Capacity (IDC) or Annual Initial Dependable Capacity (AIDC), excluding auxiliary power consumption.
3. **Net Generation:** The actual electricity generated, excluding power used for station service or auxiliary needs.
4. **Service Hours:** The total time the unit was online and synchronized to the grid, actively generating power.
5. **Standby Hours:** The time the unit was available but not utilized for economic reasons (e.g., lower cost plants being idle).
6. **Planned Outage Hours:** The duration the unit was offline due to scheduled maintenance, overhauls, or planned repairs.
7. **Unplanned Outage Hours:** The time the unit was offline due to unexpected issues such as equipment failures, delayed starts, or unforeseen shutdowns.
8. **Availability Factor (AF):** The ratio of Available Hours (when the unit could have operated) to Period Hours (total hours in the reporting period).
9. **Net Capacity Factor (NCF):** The ratio of Net Generation to the product of Net Capacity and Period Hours, reflecting plant utilization.
10. **Net Output Factor:** The ratio of Net Generation to the product of Net Capacity and Service Hours, indicating the actual output relative to available capacity.

Monthly M&E Report: July 2024



Generation Break-Up and Comparative Analysis

Source	Jul 23 (GWh)	Jul 24 (GWh)	YoY Change (%)	Jun 24 (GWh)	MoM Change (%)
Bagasse	40	53	34%	60	-12%
Coal- Imported	702	1,137	62%	637	44%
Coal- Local	1,478	1,506	2%	1,489	1%
Gas	1,129	1,150	2%	1,166	-1%
Hydel	5,518	5,341	-3%	4,729	11%
Import from Iran	29	48	66%	48	0%
Nuclear	2,107	1,988	-6%	1,998	-1%
RFO	295	102	-65%	263	-158%
RLNG	2,918	2,999	2%	2,437	23%
Solar	75	110	47%	118	-6%
Wind	549	445	-19%	516	-16%
Grand Total	14,839	14,880	0%	13,459	10%

Variation against Reference

Reference Generation (GWh)	15,362
Actual Generation (GWh)	14,880
Energy Sold (GWh)	14,411
Reference Fuel Price (Rs. Mln)	139,286
Actual Fuel Price (Rs. Mln)	132,588
Fuel Price Chargeable (Rs. Mln)	130,243
Reference. Rate (Rs./KWh)	9.35
Avg. Rate (Rs./KWh)	9.04
FCA Claim Current month (Rs./KWh)	(0.31)

Monthly M&E Report: August 2024



Generation Break-Up and Comparative Analysis

Source	Aug 23 (GWh)	Aug 24 (GWh)	YoY Change (%)	Jul 24 (GWh)	MoM Change (%)	2MFY 2024	2MFY 2025	YoY Change (%)
Bagasse	38	47	24%	53	-12%	78	100	29%
Coal- Imported	719	681	-5%	1,137	-40%	1,421	1,818	28%
Coal- Local	1,638	1,306	-20%	1,506	-13%	3,116	2,811	-10%
Gas	1,214	950	-22%	1,180	-19%	2,342	2,130	-9%
Hydel	6,006	5,362	-11%	5,341	0%	11,523	10,703	-7%
Import from Iran	26	36	37%	48	-25%	55	84	52%
Nuclear	2,040	2,190	7%	1,988	10%	4,147	4,178	1%
RFO	649	6	-99%	102	-94%	944	108	-89%
RLNG	2,741	2,106	-23%	2,970	-29%	5,659	5,075	-10%
Solar	84	98	17%	110	-11%	159	209	31%
Wind	805	398	-51%	445	-11%	1,353	843	-38%
Grand Total	15,959	13,179	-17%	14,880	-11%	30,798	28,059	29%

Variation against Reference

Reference Generation (GWh)	16,514
Actual Generation (GWh)	13,179
Energy Sold (GWh)	12,752
Reference Fuel Price (Rs. Mln)	150,300
Actual Fuel Price (Rs. Mln)	114,389
Fuel Price Chargeable (Rs. Mln)	112,376
Reference. Rate (Rs./KWh)	9.39
Avg. Rate (Rs./KWh)	8.81
FCA Claim Current month (Rs./KWh)	(0.58)

Monthly M&E Report: Sep 2024



Generation Break-Up and Comparative Analysis

Source	Sep 23 (GWh)	Sep 24 (GWh)	YoY Change (%)	Aug 24 (GWh)	MoM Change (%)	3MFY 2024	3MFY 2025	YoY Change (%)
Bagasse	35	36	3%	47	-24%	112	136	21%
Coal- Imported	644	1,149	78%	681	69%	2,065	2,967	44%
Coal- Local	1,479	1,261	-15%	1,306	-3%	4,595	4,073	-11%
Gas	1,005	988	-2%	950	4%	3,348	3,118	-7%
Hydel	5,009	4,838	-3%	5,362	-10%	16,532	15,541	-6%
Import from Iran	24	40	66%	36	13%	79	124	56%
Nuclear	2,286	1,596	-30%	2,190	-27%	6,434	5,774	-10%
RFO	241	39	-84%	6	592%	1,184	147	-88%
RLNG	2,128	2,039	-4%	2,106	-3%	7,786	7,115	-9%
Solar	79	105	33%	98	7%	238	314	32%
Wind	410	395	-4%	398	-1%	1,764	1,239	-30%
Grand Total	13,339	12,487	-6%	13,179	-5%	44,137	40,546	-8%

Variation against Reference

Reference Generation (GWh)	13,850
Actual Generation (GWh)	12,487
Energy Sold (GWh)	12,188
Reference Fuel Price (Rs. Mln)	131,688
Actual Fuel Price (Rs. Mln)	111,618
Fuel Price Chargeable (Rs. Mln)	110,216
Reference. Rate (Rs./KWh)	9.80
Avg. Rate (Rs./KWh)	9.09
FCA Claim Current month (Rs./KWh)	(0.70)

Monthly M&E Report: October 2024



Source	Oct-24 (GWh)	Oct-23 (GWh)	YoY Change (%)	Sep-24 (GWh)	MoM Change (%)	4MFY25 (GWh)	4MFY24 (GWh)	YoY Change (%)
Bagasse	50	29	+72%	36	+39%	186	141	+32%
Coal (Imported)	903	336	+169%	1,149	-21%	3,870	2,401	+61%
Coal (Local)	1,518	1,334	+14%	1,261	+20%	5,591	5,929	-6%
Gas	826	704	+17%	988	-16%	3,944	4,051	-3%
Hydel	3,187	3,114	+2%	4,838	-34%	18,728	19,646	-5%
Nuclear	1,442	1,826	-21%	1,596	-10%	7,216	8,260	-13%
RFO	0	0	0%	39	-95%	0	1,184	-87%
RLNG	2,003	1,939	+3%	2,039	-2%	9,118	9,725	-6%
Solar	99	76	+30%	105	-6%	412	314	+31%
Wind	190	191	-1%	395	-52%	1,428	1,955	-27%
Others	42	23	+83%	40	+5%	102	63	+63%
Total	10,262	9,572	+7%	12,487	-18%	50,808	53,709	-5%

Variation against Reference

Reference Generation (GWh)	10,187
Actual Generation (GWh)	10,262
Energy Sold (GWh)	9,981
Reference Fuel Price (Rs. Mln)	101,480
Actual Fuel Price (Rs. Mln)	92,046
Fuel Price Chargeable (Rs. Mln)	92,412
Reference. Rate (Rs./KWh)	10.28
Avg. Rate (Rs./KWh)	9.26
FCA Claim Current month (Rs./KWh)	(1.02)

Monthly M&E Report: November 2024



Source	Nov-23 (GWh)	Nov-24 (GWh)	YoY Change (%)	Oct-24 (GWh)	MoM Change (%)	5MFY24 (GWh)	5MFY25 (GWh)	YoY Change (%)
Bagasse	27	52	96%	50	4%	168	238	42%
Coal-Imported	486	477	-2%	903	-47%	2,887	4,346	51%
Coal-Local	987	1,019	3%	1,518	-33%	6,916	6,610	-4%
Gas	695	858	23%	826	4%	4,746	4,802	1%
Hydel	2,755	2,860	4%	3,187	-10%	22,401	21,588	-4%
Import from Iran	30	37	24%	42	-13%	132	203	54%
Nuclear	1,572	1,655	5%	1,442	15%	9,832	8,871	-10%
F.O.	0	0	-100%	2	-100%	1,183	149	-87%
RLNG	798	907	14%	2,003	-55%	10,523	10,024	-5%
Solar	50	69	39%	99	-30%	364	482	32%
Wind	148	98	-34%	190	-48%	2,103	1,527	-27%
<i>Total</i>	7,547	8,031	6%	10,262	-22%	61,254	58,840	-4%

Variation against Reference

Reference Generation (GWh)	7,972
Actual Generation (GWh)	8,031
Energy Sold (GWh)	7,716
Reference Fuel Price (Rs. Mln)	60,758
Actual Fuel Price (Rs. Mln)	58,239
Fuel Price Chargeable (Rs. Mln)	55,765
Reference. Rate (Rs./KWh)	7.86
Avg. Rate (Rs./KWh)	7.23
FCA Claim Current month (Rs./KWh)	(0.63)

Monthly M&E Report: December 2024



Source	Dec-23 (GWh)	Dec-24 (GWh)	YoY Change (%)	Nov-24 (GWh)	MoM Change (%)	6MFY24 (GWh)	6MFY25 (GWh)	YoY Change (%)
Bagasse	101.24	101.07	0.14%	52	94%	268.92	339.24	26%
Coal- Imported	383.63	123.63	-68%	477	-74%	3,270.72	4,469.85	37%
Coal- Local	1,309.55	784.28	-40%	1,019	-23%	8,225.74	7,393.81	-10%
Gas	825.91	959.82	16%	858	12%	5,572.09	5,762.19	3%
Hydel	1,859.01	1,778.28	-4%	2,860	-38%	24,259.81	23,366.43	-4%
Import from Iran	28.20	32.76	16%	37	-11%	159.76	235.77	48%
Nuclear	1,464.43	2,065.10	41%	1,655	25%	11,296.09	10,935.94	-3%
F.O.	168.22	2.64	-98%	0	-	1,351.59	151.58	-89%
RLNG	1,267.99	1,614.68	27%	907	78%	11,791.17	11,638.49	-1%
Solar	61.82	75.82	23%	69	10%	425.65	557.76	31%
Wind	150.37	261.62	74%	98	167%	2,253.04	1,788.32	-21%
Total	7,626.68	7,799.69	2%	8,031	-3%	68,880.88	66,639.37	-3%

Variation against Reference

Reference Generation (GWh)	7,929
Actual Generation (GWh)	7,799
Energy Sold (GWh)	7,516
Reference Fuel Price (Rs. Mln)	81,765
Actual Fuel Price (Rs. Mln)	73,362
Fuel Price Chargeable (Rs. Mln)	72,164
Reference. Rate (Rs./KWh)	10.64
Avg. Rate (Rs./KWh)	9.60
FCA Claim Current month (Rs./KWh)	(1.04)

Monthly M&E Report: KE July 2024

Prepared by M&E



Energy Mix/Price Mix

Month	July 2023				July 2024				June 2024			
Category	KE Own	NTDC	IPPs	Total	KE Own	NTDC	IPPs	Total	KE Own	NTDC	IPPs	Total
Energy (GWh)	958	772	167	1,897	1,076	783	152	2,011	956	723	165	1,843
Fuel Price (Rs. Mln)	23,413	6,464	3,705	33,582	28,449	7,080	2,839	38,368	25,580	6,591	2,692	34,863
Av. Per Unit Price (Rs. / kWh)	24.44	8.37	22.24	17.71	26.44	9.04	18.73	19.08	26.77	9.12	16.35	18.92
Energy Mix (%)	51%	41%	9%	100%	54%	39%	8%	100%	52%	39%	9%	100%
Fuel Price Mix (%)	70%	19%	11%	100%	74%	18%	7%	100%	73%	19%	8%	100%

Category wise Sales Mix (GWh)

Category	Jul-23	Jul-24	YoY Change (%)
	Units (GWh)	Units (GWh)	
Residential & Commercial	1,394	1,477	6%
EHT & Industrial	391	410	5%
Strategic	109	120	10%
Import (Net metering)	3	4	40%
Total	1,897	2,011	6%

Fuel Cost Adjustment - Variation	PKR / KWh	3.09
Fuel Cost Adjustment - Amount	PKR Mn	6,206

Monthly M&E Report: KE Aug 2024

Prepared by M&E



Energy Mix/Price Mix

Month	Aug 2023				Aug 2024				July 2024			
Category	KE Own	NTDC	IPPs	Total	KE Own	NTDC	IPPs	Total	KE Own	NTDC	IPPs	Total
Energy (GWh)	800	753	134	1,687	806	755	119	1,680	1,076	783	152	2,011
Fuel Price (Rs. Mln)	18,955	6,307	2,836	28,098	19,460	6,657	1,606	27,724	28,449	7,080	2,839	38,368
Av. Per Unit Price (Rs. / kWh)	23.70	8.37	21.19	16.66	24.14	8.81	13.56	16.50	26.44	9.04	18.73	18.92
Energy Mix (%)	47%	45%	8%	100%	48%	45%	7%	100%	57%	41%	8%	100%
Fuel Price Mix (%)	67%	22%	10%	100%	70%	24%	6%	100%	74%	18%	7%	100%

Category wise Sales Mix (GWh)

Category	Aug-23	Aug-24	YoY Change (%)	Jul-24	MoM Change (%)
	Units (GWh)	Units (GWh)		Units (GWh)	
Residential & Commercial	1,140	1,177	3%	1,477	-20%
EHT & Industrial	442	400	-10%	410	-3%
Strategic	104	102	-2%	120	-15%
Import (Net metering)	1	0.941	-34%	4	-74%
Total	1,687	1,680	0%	2,011	-16%

Fuel Cost Adjustment - Variation	PKR / KWh	0.51
Fuel Cost Adjustment - Amount	PKR Mn	853

Monthly M&E Report: KE Sep 2024

Prepared by M&E



Energy Mix/Price Mix

Month	Sep 2023				Sep 2024				Aug 2024			
Category	KE Own	NTDC	IPPs	Total	KE Own	NTDC	IPPs	Total	KE Own	NTDC	IPPs	Total
Energy (GWh)	762	711	194	1,667	720	734	117	1,571	806	755	119	1,680
Fuel Price (Rs. Mln)	17,099	6,290	1,485	24,874	19,460	6,657	1,606	27,724	19,460	6,657	1,606	27,724
Av. Per Unit Price (Rs. / kWh)	24.17	7.49	27.00	17.39	23.76	8.57	12.65	15.84	24.14	8.81	13.56	16.50
Energy Mix (%)	46%	43%	12%	100%	46%	47%	7%	100%	48%	45%	7%	100%
Fuel Price Mix (%)	64%	18%	18%	100%	69%	25%	6%	100%	70%	24%	6%	100%

Category wise Sales Mix (GWh)

Category	Sep-23	Sep-24	YoY Change (%)	Aug-24	MoM Change (%)
	Units (GWh)	Units (GWh)		Units (GWh)	
Residential & Commercial	1,118	1,084	-3%	1,177	-8%
EHT & Industrial	445	382	-14%	400	-4%
Strategic	102	101	0%	102	-1%
Import (Net metering)	2	4	65%	0.941	300%
Total	1,667	1,571	-6%	1,680	-7%

Fuel Cost Adjustment - Variation	PKR / KWh	(0.16)
Fuel Cost Adjustment - Amount	PKR Mn	(247)

Monthly M&E Report: KE Oct 2024

Prepared by M&E



Energy Mix/Price Mix

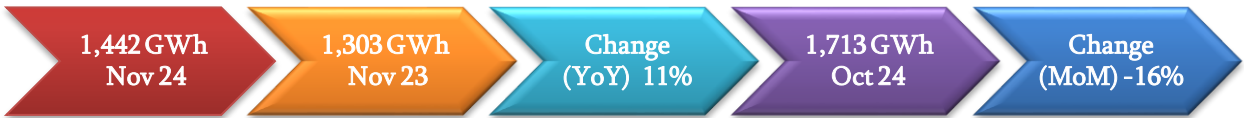
Month	Oct 2023				Oct 2024				Sep 2024			
Category	KE Own	NTDC	IPPs	Total	KE Own	NTDC	IPPs	Total	KE Own	NTDC	IPPs	Total
Energy (GWh)	744	711	231	1,686	802	791	120	1,714	720	734	117	1,571
Fuel Price (Rs. Mln)	20,922	7,859	5,765	34,546	18,053	7,327	1,568	26,947	19,460	6,657	1,606	27,724
Av. Per Unit Price (Rs. / kWh)	28.12	11.05	25.00	20.49	22.51	9.26	13.03	15.73	23.76	8.57	12.65	15.84
Energy Mix (%)	44%	42%	14%	100%	47%	46%	7%	100%	46%	47%	7%	100%
Fuel Price Mix (%)	61%	23%	17%	100%	67%	27%	6%	100%	69%	25%	6%	100%

Category wise Sales Mix (GWh)

Category	Oct-23	Oct-24	YoY Change (%)	Sep-24	MoM Change (%)
	Units (GWh)	Units (GWh)		Units (GWh)	
Residential & Commercial	1,142	1,188	4%	1,084	10%
EHT & Industrial	439	413	-6%	382	8%
Strategic	102	106	4%	101	5%
Import (Net metering)	3	6	82%	4	68%
Total	1,686	1,714	2%	1,571	9%

Fuel Cost Adjustment - Variation	PKR / KWh	(0.27)
Fuel Cost Adjustment - Amount	PKR Mn	(461)

Prepared by M&E



Energy Mix/Price Mix

Month	November 2024			November 2023			October 2024		
Category	KE Own	NTDC /IPPs	Nov-24 Total	KE Own	NTDC /IPPs	Nov-23 Total	KE Own	NTDC /IPPs	Oct-24 Total
Energy (GWh)	368	1,072	1,442	459	844	1,303	802	912	1,714
Price (Rs. Mln)	7,829	8,059	15,888	13,810	9,337	23,147	18,053	8,895	26,947
Per Unit Price (Rs. / kWh)	21.27	7.52	11.02	30.06	11.07	17.77	22.51	9.76	15.73
Energy Mix (%)	26%	74%	100%	35%	65%	100%	47%	53%	100%
Fuel Price Mix (%)	49%	51%	100%	60%	40%	100%	67%	33%	100%

Category wise Sales Mix (GWh)

Category	Nov-24		Nov-23			Oct-24		
	Units (GWh)	% of Total	Units (GWh)	% of Total	YoY Change (%)	Units (GWh)	% of Total	MoM Change
Residential & Commercial	897	62%	817	63%	10%	1,178	69%	-24%
EHT	40	3%	62	5%	-35%	34	2%	18%
Industrial	302	21%	323	25%	-7%	375	22%	-19%
Strategic	189	13%	90	7%	110%	107	6%	77%
Import (Net metering)	20	1%	12	1%	67%	22	1%	-9%
Total	1,448	100%	1,304	100%	11%	1,716	100%	-16%

Fuel Cost Adjustment - Variation	PKR / KWh	(4.98)
Fuel Cost Adjustment - Amount	PKR Mn	(7,179)

Monthly M&E Report: KE December 2024

Prepared by M&E



Energy Mix/Price Mix

Month	December 2024				December 2023				November 2024			
Category	KE Own	NTDC	IPPs	Dec-24 Total	KE Own	NTDC	IPPs	Dec-23 Total	KE Own	NTDC	IPPs	Nov-24 Total
Energy (GWh)	188	741	70	999	264	709	97	1,070	370	967	105	1,442
Fuel Price (Rs. Mln)	3,503	7,113	415	11,031	9,704	7,110	1,150	17,964	7,829	6,992	1,067	15,888
Av. Per Unit Price (Rs. / kWh)	18.63	9.60	5.93	11.04	36.76	10.03	11.86	16.79	21.16	7.23	10.16	11.02
Energy Mix (%)	19%	74%	7%	100%	25%	66%	9%	100%	26%	67%	7%	100%
Fuel Price Mix (%)	32%	64%	4%	100%	54%	40%	6%	100%	49%	44%	7%	100%

Category wise Sales Mix (GWh)

Category	Dec-23	Dec-24	YoY Change (%)	Nov-24	MoM Change (%)
	Units (GWh)	Units (GWh)		Units (GWh)	
Residential & Commercial	613	567	-7.5	954	-41
EHT & Industrial	367	346	-5.7	383	-9.7
Strategic	78	72	-7.4	91	-20.9
Import (Net metering)	12	15	55.4	20	-7.4
Total	1,069	999	-6.6	1,448	-30.7

Fuel Cost Adjustment - Variation	PKR / KWh	(4.95)
Fuel Cost Adjustment - Amount	PKR Mn	(4,940)