



Summary of Annual Report 2024

National Power Parks Management Company (Private) Limited

**Ministry of Energy (Power Division),
Government of Pakistan**

1230 MW CCPP Haveli Bahadur Shah



1223 MW CCPP Balloki



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Brief Background:

Section 7 of the State-Owned Enterprises Act 2023 stipulates that a state-owned enterprise must arrange for publication of a summary of the annual report on an internet site maintained by the state-owned enterprise or, where the state-owned enterprise does not have a website, on the website of the Division to which the business of the state-owned enterprise is allocated under the Rules of Business, 1973, or in one or more newspapers generally circulating in Pakistan.

The summary of the annual report must be published under sub section (1) within one month after the report is submitted to the Federal Government and should compare the actual performance of the state-owned enterprise during the financial year to which the report relates with the targets or benchmarks set in its statement of corporate intent for that financial year.

1. Business Goals:

- To maximize return for the shareholders.
- To help the country achieve self-sufficiency in power generation to support economic growth and reduce poverty.
- To adopt best Management practices to ensure optimum operational efficiency.
- To strive for Excellence, which is recognized and followed by industry in general as a model and ensures long-term growth through sustainable operation.
- To extend hard-core professional, social, and ethical commitments towards stakeholders including shareholders, clients, and community.
- To provide reliable and sustainable electricity to National Grid.

2. Performance Measures and Benchmarks against the business goals:

Critical success factors (CSF)/Key performance indicators (KPIs) for our business plan are as follows:

- Availability of Plants as assured under PPAs
- Net Electric Output during the reporting period
- Maintenance of Efficiency of Plants as provided under PPAs
- Earning of RoE provided under approved Tariff
- Budgetary Compliances
- Equipped Human Resource
- Number of forced outages
- Performance against benchmarks of Health, Safety & Environment
- Non-operational performance

3. Operational Plan:

A forecast of estimated Capacity, Generation Capability and Plant Availability for the fiscal year 2023-24 viz-a-viz actual Capacity, Generation and Plants' Availability is given hereunder:

Fiscal Year 2023-24	1223 MW CCPP Balloki			1230 MW CCPP HBS		
	Capacity	Generation Capability	Availability	Capacity	Generation Capability	Availability
	GWh	GWh	%	GWh	GWh	%
Forecast	10,153	9,121	92%	10,254	9,186	92%
Actual	10,009	6,685	95.04%	10,102	7,931	96.1%
Variance	(144)	(2,436)	3.04%	(152)	(1,255)	4.1%
Reason of Variance	Ambient site conditions	Less Demand from NPCC	Less outages	Ambient site conditions	Less Demand from NPCC	Less outages

Being the most efficient combined cycle thermal power plants in the country, the rising electricity demand, and high merit order, the service factor of plants was forecasted to remain high. RLNG being the primary fuel and the reduced dependence on liquid fuel usage for power generation by the Government of Pakistan, the fuel requirement was calculated on the RLNG fuel based on generation capability of both power plants. A comparison of forecast and actual use of RLNG during FY 2023-24 is provided hereunder:

Fiscal Year 2023-24	1223 MW CCPP Balloki	1230 MW CCPP HBS
	Gas Requirement	Gas Requirement
	MMSCF	MMSCF
Forecast	54,297	54,388
Actual	44,116	51,406
Variance	(10,181)	(2,982)
Reasons of Variance	Less Demand from NPCC	Less Demand from NPCC

Note: This fuel quantity has been worked out based on the maximum generation capability and actual may vary as per the dispatch received from the System Operator.

4. Maintenance Plan:

NPPMCL's Technical team is fully aware that maintenance plays a pivotal role in the smooth and efficient operation of power plants therefore regular equipment maintenance is ensured. Comprehensive Preventive and Predictive Maintenance plans are prepared and in place to ensure reliable operation of the plants. Routine maintenance of major equipment of both plants was to be carried out as per OEM recommendations in Operation & Maintenance Manuals. Besides arranging essential spares by the O&M Contractors, NPPMCL keeps a close watch on the availability of Capital and mandatory spares arrangements along with plans for capital improvements or process improvements during the preparation of budgets.

Effective equipment maintenance is vital for the reliable and efficient operation of power plants. By implementing a comprehensive maintenance strategy/Plan that includes preventive, predictive, corrective, condition-based, shutdown maintenance and calibration/ testing, power plant operators can optimize equipment performance, extend the lifespan of critical components, and minimize downtime, ultimately ensuring a continuous supply of electricity to meet the needs of consumers and industries. Some of the Major Equipment in the Power plant with critical maintenance requirements are listed below:

- Gas turbines, Gas Turbine Generators & Auxiliaries
- Steam Turbine & Steam Turbine Generator & Auxiliaries
- Heat Recovery Steam Generator
- Gas Boosting Compressor
- Cooling water Pumps
- Main and Auxiliary Transformers
- Electrical Switch Yard
- Fuel supply system
- Balance of plant

Outage planning lies at the heart of Maintenance Planning. The Scheduled Inspection of the major Equipment i.e., Gas Turbines & Steam Turbines is based on the Fired Hours/Operating Hours of the respective machine. Each site maintains a record of such Fired/Operating Hours. OEM of Gas Turbines & Steam Turbine has recommended performing mandatory Inspections at certain intervals of time. Considering the present status of such hours and the forecasted operation, the Outage Intervals are finalized in coordination with the O&M Contractor, LTSA Contractor and Power Purchaser.

Such outage intervals are scheduled in low-demand months. Any foreseeable allied maintenance activities such as compressor offline water wash, air inlet filter replacement, HRSG inspection that require outages, are also combined in such scheduled Outages. Extensive outage plans are prepared, analyzed, reviewed, and evaluated to reduce outage time.

The planned Scheduled Outage Inspections of both power plants is as follows wherefrom it may be noted that no maintenance activity was planned during FY 2023-24.

Unit	1223 MW CCPP Balloki		1230 MW CCPP HBS	
	Inspection	Month & Year	Inspection	Month & Year
GT-1	Major Inspection	Feb-Mar-2025	Major Inspection	Jan-Mar-2025
GT-2	Major Inspection	Feb-Mar-2025	Major Inspection	Jan-Mar-2025
ST	C-Type Inspection	Feb-Mar-2025	C-Type Inspection	Jan-Mar-2025

5. Financial Plan

Financial plans are of primary importance to the corporate organizations as they provide financial guidance to prepare the organization in meeting its obligations and corporate objectives. It also helps in tracking the progress throughout the planning period. Financial planning involves evaluation of the financial position (income, spending, receipts, settlement of liabilities, and cashflows) and expectations for the future.

NPPMCL's financial plan for FY 2023-24 was primarily based on the operational & maintenance plans of the HBS and Balloki power plants. The plan comprises of;

- Key Financial assumptions including General inflation, RLNG Cost, Foreign Exchange Rates, Market interest rates
- Operational performance
- Working Capital management plan
- Forex requirements and Plant insurance
 - Long-term loans and settlement plan
 - Dividend Pay-out plan
 - Budgeting
- Forecasted financial position i.e., Projected Balance sheets comprising of Assets, Liabilities, Equity and reserves positions.
- Forecasted financial performance i.e., Projected Income statements comprising of Revenues, Operating costs, Admin expenses, Financial charges and other incomes
- Separate forecasted financial statements for both the projects at HBS and Balloki
- Cashflow Forecasts i.e., Projected cashflow statements comprising of Operating, Financing & Investing Cashflows

Following is the summary of planned operating results vis-a-vis actual results for FY 2023-24 on a consolidated basis:

Rs. In billion

Description	FY 2023-24		Variance	
	Planned	Actual	Amount	Reasons
Revenue	586	410	176	<ul style="list-style-type: none"> • Less generation of energy due to decrease in power purchaser's demand.
Cost of Sales	531	350	181	<ul style="list-style-type: none"> • Variation in RLNG price, USD exchange rates. • Increase in US CPI & Pak CPI indexation rates changes.
Gross profit	54	60	(6)	
Delay payment charges	20	34	(14)	On average, CPPA has taken more time to release payments as envisaged in the budget.
Financial charges	44	18	26	<ul style="list-style-type: none"> • Financial charges were budgeted to cater for any change in the capital structure of PDPL i.e. preference shares to be issued against share deposit money. • Finance cost saved due to non-utilization of financing against housing facilities at power plant sites.
Net profit after tax	30	77	47	

Working Capital Management Plan

As part of working capital management plan of NPPMCL the following assumptions were considered.

• RLNG payables to SNGPL	10 days LNG cost as per payment terms
• Energy receivables from CPPAG	60 days receivables (Last year average)
• Capacity receivables from CPPAG	357 days receivables (Last year average)
• Delay payments receivable from CPPAG	Bi-Annual Receipts

Based on the above the Company had projected utilizing the bank's working capital finance facility of Rs 42 billion in full, with financing cost @ 3-M Kibor + 1.5% of the outstanding amount. Further, RLNG gas payables to SNGPL are maintained at an average balance of Rs. 70 billion which carries a delay payment markup rate @ 3-M Kibor + 2%.

Working Capital Management Actual Outcomes

Due to improved receipt of funds in Energy Receivables during FY 2023-2024, the average receivable days have decreased from 60 days as envisaged in budget to 39 days. This enhancement in cash flow has also led to a reduction in average payables to SNGPL, which now stands at Rs. 39 billion.

Foreign exchange requirement and plant insurance

Foreign exchange requirement for FY 2023-24 was estimated as per the contractual requirement of LTSA agreements and expected plant insurance premium. Total expected foreign currency requirement vis-a-vis used in actual is given hereunder:

No.	USD (Million)	Planned	Actual	Variance	Reasons for variance
1	LTSA contractual payments	30.03	22.43	7.60	As per the fee schedule of the LTSA Agreement, LTSA fee of Term-1 has been reached to its capped limit during FY 2023-2024. Therefore, the LTSA contractor cannot charge fee during 2 nd half of the FY 2024.
2	Plants insurance premium	17.04	15.82	1.22	Due to better negotiations with the Reinsurance market, discount have been achieved in insurance premium.
	Total	47.07	38.25	8.82	

As per the requirements of PPA, the Company is required to maintain Property Damage, Political Violence, and Third-Party Liability insurance.

6. Health & Safety Management Plan -

Objective: Zero Accidents/incidents at sites.

This plan comprises of the requirements to ensure the health and safety of the Site and personnel. It also includes plans to handle crisis or emergencies at the site. Certain drills and

training programs are made part of this plan to achieve zero incidents and to improve awareness of Safety and expected response of the staff in case of any incident or emergency condition.

A summary of the health & safety program is as below (Balloki Plant):

No	Objective / Target	Program	Actual Results FY 2023-24
1	Achieve "Zero" Accident/Incident	Preparation of Hazard identification and risk assessment (Area and Job wise)	Risk assessments were carried out
2	Permit To Work System	Arrange and conduct Periodic audits of PTW.	Quarterly PTW audits were conducted. Total 29 PTWs were selected for audit during this period.
		Arrange and conduct tests and interviews for PTW authorization	Tests and interviews for PTW authorization were conducted for maintenance and operations personal along with refresher trainings as per Training Need Analysis (TNA).
3	Emergency Response Plan (ERP)	Plan and Conduct combined ERT drills	4 ERT drills were conducted annually as per ERP SOP
		Plan and conduct Evacuation drills and minimize the response time of evacuation drills.	Training Need Analysis (TNA) FY 2023-24 is prepared, and trainings are done accordingly.
		Conduct Fire Fighting, First Aid and Rescue Trainings	4 ERT drills were conducted which include firefighting, first aid and rescue.
4	HSEQ training	Internal Training	14 internal trainings were conducted.
		Planned and conducted External certification Training (Crane, Forklift, Scaffolding, First Aid and CPR) for all concerned	7 external trainings were conducted
5	Improve firefighting system.	Maintain fitness of fire tender by routine inspection.	Monthly inspection was done
		Inspection of all firefighting equipment.	Monthly inspection was done
		Deluge Valves Testing	Annual testing was done for SUTs, and HSD Storage tanks
		Testing of Fire detection system	Annual testing was performed
		Annual Fire Water Pumps Performance Test	Annual performance testing was done.
6	Certification and inspection of safety-critical equipment	Ensure timely inspection of all safety-critical equipment and 100% compliance of lifting equipment's inspection tag procedure.	Safety critical device list is available along with inspection and testing records.
		3rd party certification of cranes and periodic inspection of cranes by contractor	Lifting equipment is inspected by 3rd party on annual basis
		Ensure 100% compliance of power tools inspection and tagging procedure	Crane and heavy equipment are inspected by 3rd party annually.
7	Crisis management	Business Continuity Plan has been prepared and implemented accordingly.	Inspection and tagging is done as per approved SOP.
		ERP is being prepared and be implemented.	Business Continuity Plan is available. ERP procedure is available and implemented.

8	Noise Management Program.	Arrange 3rd Party Noise survey on a periodic basis. Procurement of low noise power tools and equipment.	Quarterly noise measurement as per EPA guidelines is done. Low noise generation is prioritized during equipment procurement.
9	Food Safety and Hygiene Program.	Conduct in-house, Food safety hygiene Audit of canteen, kitchens and washrooms on periodic basis.	Monthly inspection of mess, washrooms, and kitchen is done.
10	Medical Centre/Ambulance /First aid	Inspection of First Aid Room/Medicine/Ambulance etc.	Monthly inspection of first aid, ambulance and medicine storage is done.
		Make the availability of First aid box at admin and CCR and its periodic inspection	First aid box is available in administration building and central control room (CCR)

A summary of the health & safety program is as below (HBS Plant):

No	Objective / Target	Program	Actual Results FY 2023-24
1	Achieve "Zero" Accident/Incident	Preparation of Hazard identification and risk assessment (Area and Job wise)	Risk assessments were carried out
2	Permit To Work System	Arrange and conduct Periodic audits of PTW.	Weekly audits of PTW were carried out. A total of 48 audits have been conducted, during which 361 PTWs were selected for review.
		Arrange and conduct tests and interviews for PTW authorization	Tests and interviews for PTW authorization were conducted twice during FY 2023-2024.
3	Emergency Response Plan (ERP)	Plan and Conduct combined ERT drills	07 ERT drills were performed.
		Plan and conduct Evacuation drills and minimize the response time of evacuation drills.	02 Evacuation drills were conducted.
		Conduct Fire Fighting, First Aid and Rescue Trainings	07 Fire Fighting, First Aid and Rescue drills were carried out.
4	HSEQ training	Internal Training	56 HSEQ trainings were conducted during FY 2023-2024 at site.
		Planned and conduct External certification Training (Crane, Forklift, Scaffolding, First Aid and CPR) for all concerned	03 External Trainings were conducted at site.
5		Maintain fitness of fire tender by routine inspection.	Monthly inspection of fire tenders is being carried out.

No	Objective / Target	Program	Actual Results FY 2023-24
	Improve firefighting system.	Inspection of all firefighting equipment.	Daily and monthly inspections are in place for the firefighting equipment.
		Deluge Valves Testing	Deluge valves are being tested as and when opportunity is available. GSUT 1&2, UAT 1& 2, and LCI 1&2 transformers were tested in FY 2023-2024.
		Testing of Fire detection system	The system is being tested quarterly and annually.
		Annual Fire Water Pumps Performance Test	Test conducted.
6	Certification and inspection of safety-critical equipment	Ensure timely inspection of all safety-critical equipment and 100% compliance of lifting equipment's inspection tag procedure.	Lifting gears are being inspected on a bi-annual basis whereas lifting equipment is inspected on an annual basis. Safety-critical equipment is being inspected annually.
		3rd party certification of cranes and periodic inspection of cranes by contractor	Cranes are being inspected on an annual basis by third party and on monthly basis by contractor.
		Ensure 100% compliance of power tools inspection and tagging procedure	Inspection and tagging of power tools are being carried out as per the SOP for Power and Hand Tools Safety.
7	Crisis management	business continuity plan has been prepared and implemented accordingly. ERP is being prepared and be implemented.	BCP has been implemented. 02 emergency drills were conducted under BCP.
8	Noise Management Program.	Arrange 3rd Party Noise survey on a periodic basis. Procurement of low noise power tools and equipment.	Noise survey is being carried out on quarterly basis and internal surveys are also conducted by contractor and PPEs are mandatory as per the dB levels.
9	Food Safety and Hygiene Program.	Conduct in-house, Food safety hygiene Audit of canteen, kitchens and washrooms on periodic basis.	Daily and monthly inspections are being carried out at site.
10	Medical Centre/Ambulance	Inspection of First Aid Room/Medicine/Ambulance etc.	Inspections are being done on a monthly basis.

No	Objective / Target	Program	Actual Results FY 2023-24
	/First aid	Make the availability of First aid box at admin and CCR and its periodic inspection	First aid boxes are available throughout the site and are being inspected on a weekly basis.

7. Corporate Social Responsibility to Environmental Plan

NPPMCL is aware of its responsibilities toward social uplift and environmental safety. The Regulator has also made it mandatory for all Licensees to provide updates on Corporate Social Responsibility measures on a periodic basis. NPPMCL had budgeted Rs. 15 million per year per plant on account of CSR activities.

Actual Performance during FY 2023-24:

The CSR activities are focused in the vicinity of both plant sites, i.e. district Kasur for Balloki Power Plant and district Jhang for HBS Power Plant. The Company has focused on the education sector currently and Vocational Training of the youth under CSR initiative is underway at both plant sites. The training is being conducted at the TEVTA institutes in Chunian, Pattoki, Kot Radha Kishan and Jhang.

A comprehensive awareness campaign was held in the vicinity of both plant sites. Several banners and posters were placed around the access road to the plant, along the main roads of the nearby residential areas and educational institutes, health centers and provisional stores of the nearby area. An overwhelming response was shown by the youth of the area and a huge number of application forms were received. The vocational training started from 1st April 2024 and will end on 30th September 2024. The Company has started the preparation to enroll more students for the upcoming session starting on 1st October 2024.

Altogether, 100 students started the training from HBS site and 75 students from Balloki site. The Company paid the institute fee and a stipend of PKR 10,000 per month to each student. The company has also approved a passing bonus of PKR 45,000/- for each student who successfully completes the training course. A few pictures of the vocational trainings are appended below:

1223 MW CCPP BALLOKI



Awareness Campaign for Vocational Training



Awareness Campaign for Vocational Training



Awareness Campaign for Vocational Training



Trainee Induction at Balloki



Training in Progress



Training in Progress

1230 MW HBS Power Plant



Awareness Campaign for Vocational Training



Awareness Campaign for Vocational Training



Awareness Campaign for Vocational Training



Induction Ceremony at HBS



Training in Progress



Training in Progress

An Environmental Management System is in place at both sites to consider the impact of the plant and activities on the environment. Essential measures and procedures (SOP's) have been developed considering the NEQS, PEQS and ISO 14001. O&M contractors are assigned to perform monitoring, including 3rd party testing services. A periodic testing/monitoring plan is as below:

Potential Impact	Parameters	Location	Frequency	Actual 3 rd Party Testing Conducted
Air Quality	PM10 (Particulate Matter), PM2.5(Particulate Matter), SO2 (Sulphur Dioxide), NOx (Nitrogen Oxides), CO (Carbon Monoxide), HC (Ambient Air Quality).	<ul style="list-style-type: none"> • At the boundary of Plant Area. • Nearby communities 	Bi-Annually	Yes
Stack Emissions	PM10 (Particulate Matter), PM2.5(Particulate Matter), SO2 (Sulphur Dioxide), NOx (Nitrogen Oxides), CO (Carbon Monoxide), HC (Ambient Air Quality).	<ul style="list-style-type: none"> • All the stacks. 	Monthly	Yes
Ground Water	Color, pH, Odor, Taste, Turbidity, TDS, TSS, Heavy Metals, Phosphate, NH3, Arsenic, Sulphate, Sulfide, Coliforms, Other Heavy Metals and Fecal Coliforms	<ul style="list-style-type: none"> • Tube wells and any other drinking water Source approx. in 5 km radius. • Ground Water / Drinking Water Samples from Plant Facilities. 	Quarterly	Yes
Surface Water	Color, pH, TSS, TDS, Turbidity, DO, BOD5, COD,	<ul style="list-style-type: none"> • TS-Link/ BS-Link Canal. • Drains 	Quarterly	Yes

Potential Impact	Parameters	Location	Frequency	Actual 3 rd Party Testing Conducted
	Total Toxic Metals etc.	<ul style="list-style-type: none"> • Other sources like ponds in the villages 		
Wastewater	NEQS 32 Parameters.	<ul style="list-style-type: none"> • Composite discharge outside the plant boundary. • Wastewater ponds in the villages 	Monthly	Yes
Noise Level	Noise levels on dB(A) scale.	<ul style="list-style-type: none"> • In the area of about 1-2 Km from the proposed Gas Turbines and in the Plant Boundary. • Nearby communities • At the access road. • Maintenance Facilities 	Quarterly	Yes
Soil	Oil and grease, Total Toxic Metals, Nitrate and Phosphate.	<ul style="list-style-type: none"> • Tank farm area, fuel and chemical • Storage areas. 	Bi-annually	Yes
Potential Impact	Parameters	Location	Frequency	Actual 3 rd Party Testing Conducted