adani

Electricity

23rd National Award for Excellence in Energy Management 2022

ADTPS – Last 20 years Performance

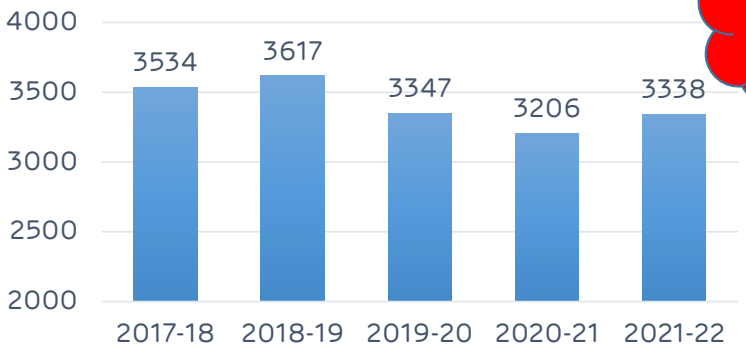
Description	Remark
Plant Load Factor (PLF)	92.32 %
Availability	95.04 %
Specific Oil consumption	0.131 ml/kwh
Aux Consumption without FGD	7.797 %
Aux Consumption with FGD	9.131 %
Heat Rate	2286 Kcal/kwh

ADTPS achieved Plant load factor > 100% For 9 financial years

2.0 Energy Consumption Overview

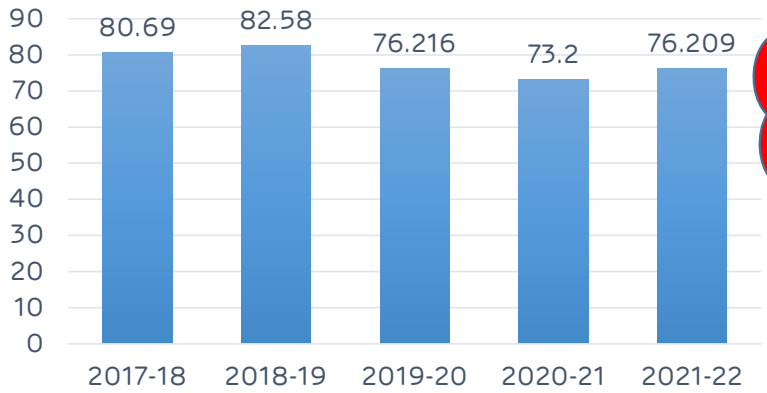
Plant Performance

Generation in MUs



Reduction in generation due to influx of RE, Back down and coal shortage

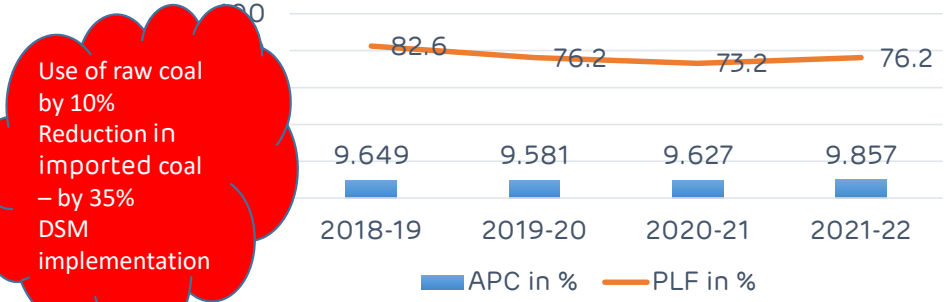
PLF in %



Reduction in PLF Back down -11.38% Coal shortage - 3.0%

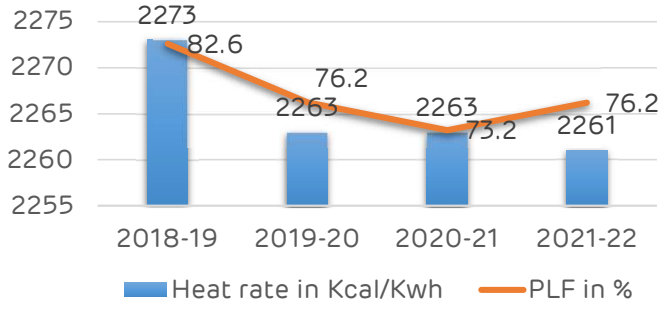
Backing down -498.7484 MUs

APC in %



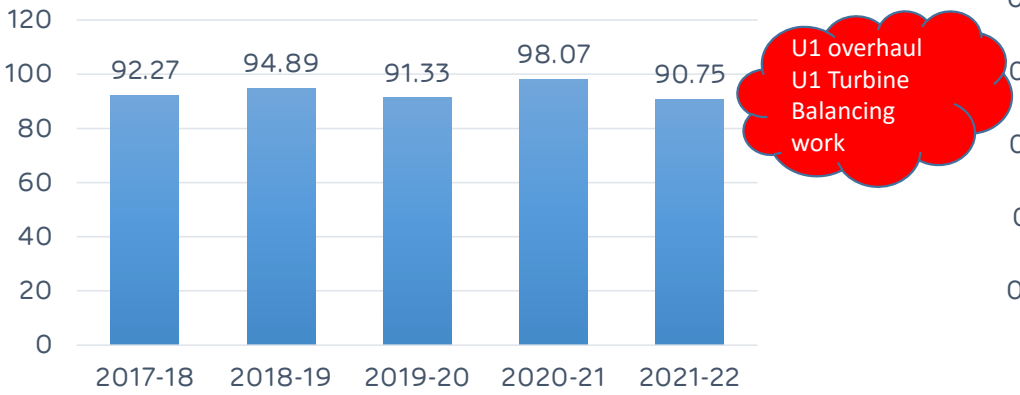
Use of raw coal by 10% Reduction in imported coal – by 35% DSM implementation

Heat rate Kcal/Kwh Vs PLF %

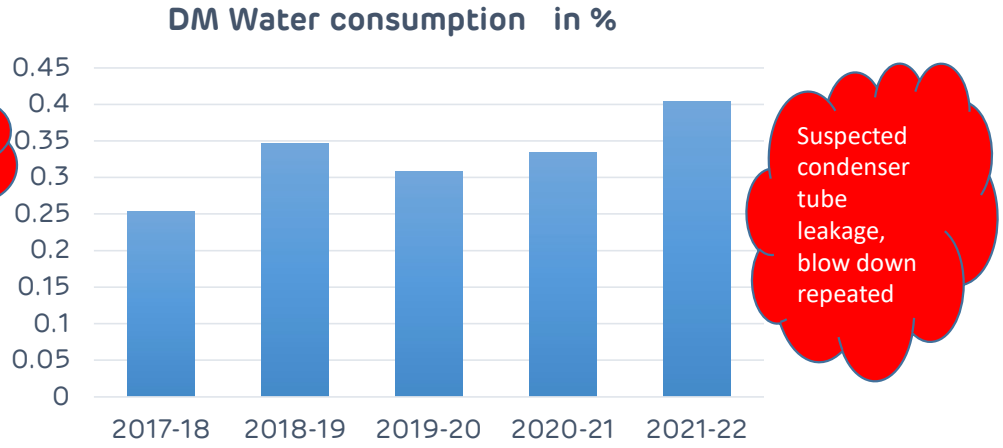


Sustainable heat rate even though tech minimum reduced to 55%

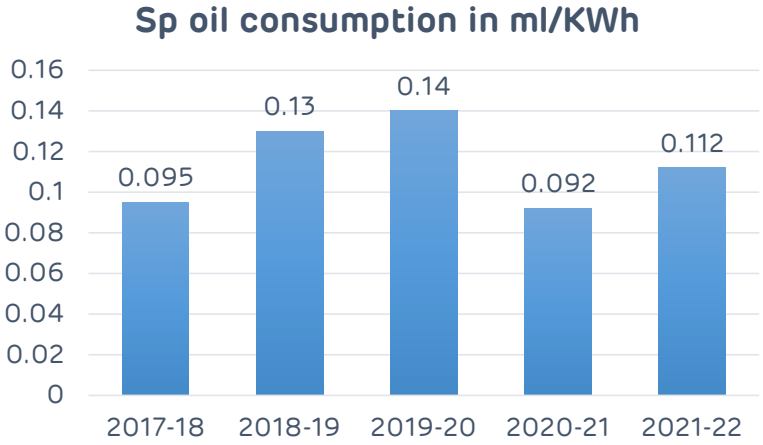
Plant Performance



U1 overhaul
U1 Turbine
Balancing
work



Suspected
condenser
tube
leakage,
blow down
repeated

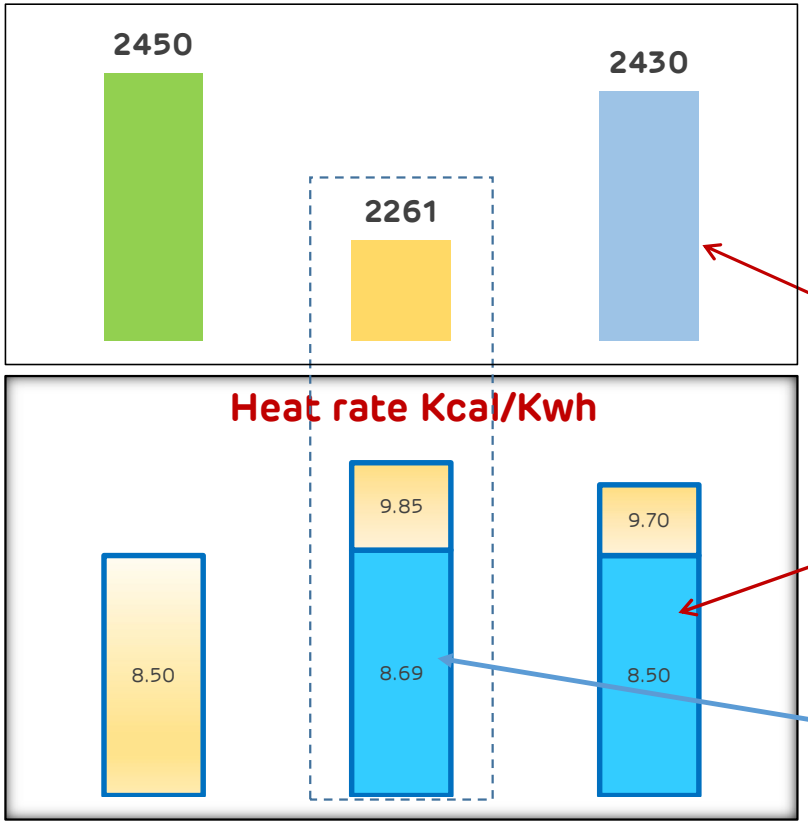


Additional
Cold start
Up

3.0 Bench marking- Performance against Regulatory Targets

adani Electricity

ADTPS FY 21-22



MERC MYT Target	
Heat rate	2430 kcal/kwh
Aux Power	8.5 % + 1.2 % for FGD

National SEC Benchmark

Source- CEA Recommendations for thermal generating stations for tariff period 2019-24

MERC SEC Target for FY Year 2021-22

Without FGD

Backing down by 498.7484 MUs

Bench Marking with Peer Companies for FY 2021-22

Description	UoM	ADTPS-Dahanu	GWEL-Warora	JSW-Ratnagiri	Reliance-Rosa	RPG-Dhariwal	Lanco-Amarkantak
Plant Capacity	MW	2*250	2*300	4*300	4*300	2*300	2*300
Availability	%	90.75	79.01	64.79	85.1	90.5	90.57
PLF	%	76.21	66.2	57.31	54.9	75.93	76.56
Loading Factor	%	83.97	83.6	88.45	64.51	83.9	84.53
Aux. Power consumption	%	8.691	8.2	8.08	8.2	7.82	7.98
Sp. Oil consumption	mL/Kwh	0.112	0.17	0.13	0.14	0.19	0.14
DM Water Make-up	%	0.41	0.15	0.48	0.2	0.45	0.29
Heat Rate	Kcal/Kwh	2261	2310	2329	2350	2341	2377

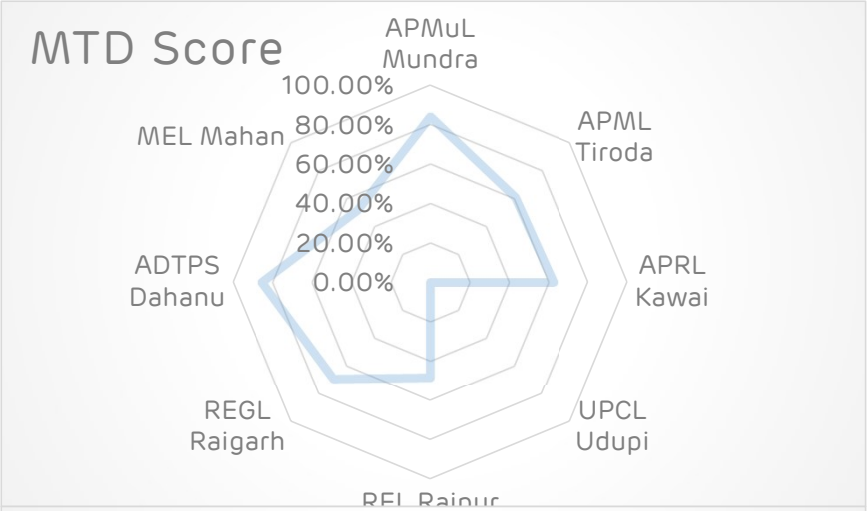
Benchmarking within Organization

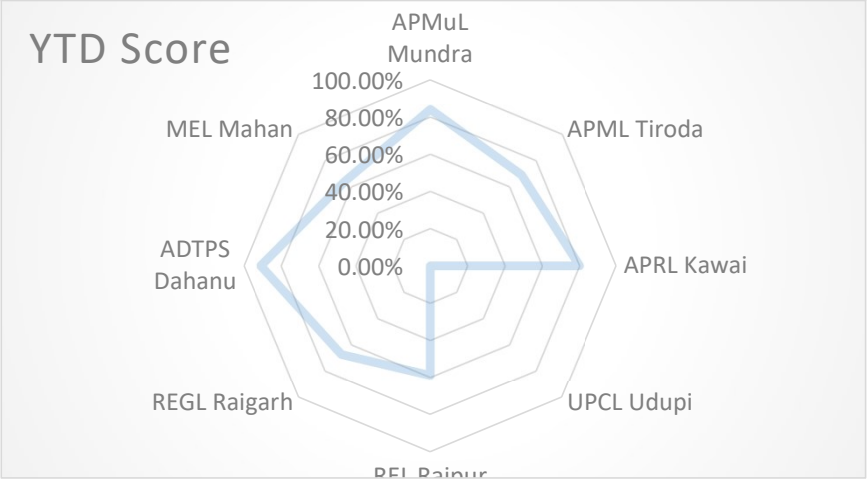
Thermal Stations Ranking for Month Jun-2022			
Rank	Station	State	Achieved Score
1	ADTPS Dahanu	Maharashtra	85.50%
2	APMuL Mundra	Gujarat	84.00%
3	REGL Raigarh	Chhattisgarh	69.50%
4	APRL Kawai	Rajasthan	62.50%
5	APML Tiroda	Maharashtra	61.00%
6	MEL Mahan	Madhya Pradesh	52.00%
7	REL Raipur	Chhattisgarh	48.50%

Note:
Station having PLF lower than 40% are excluded from ranking.
UPCL Udupi was under RSD for complete month

Thermal Stations Ranking - YTD			
Rank	Station	State	Achieved Score
1	ADTPS Dahanu	Maharashtra	91.00%
2	APMuL Mundra	Gujarat	84.00%
3	APRL Kawai	Rajasthan	80.00%
4	APML Tiroda	Maharashtra	69.00%
5	REGL Raigarh	Chhattisgarh	67.50%
6	MEL Mahan	Madhya Pradesh	64.50%
7	REL Raipur	Chhattisgarh	59.00%

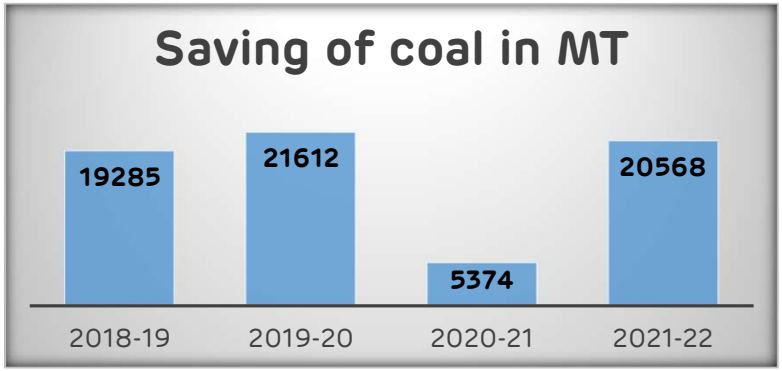
Note:
Station having PLF lower than 40% are excluded from ranking.
UPCL Udupi have PLF less than 40%



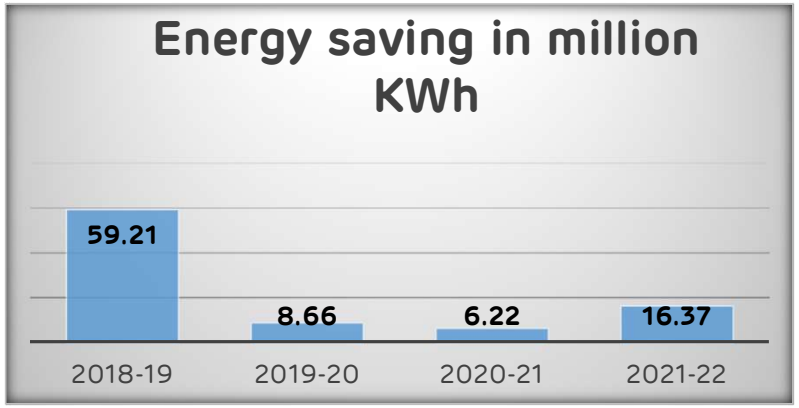


4.0 Energy Saving projects implemented

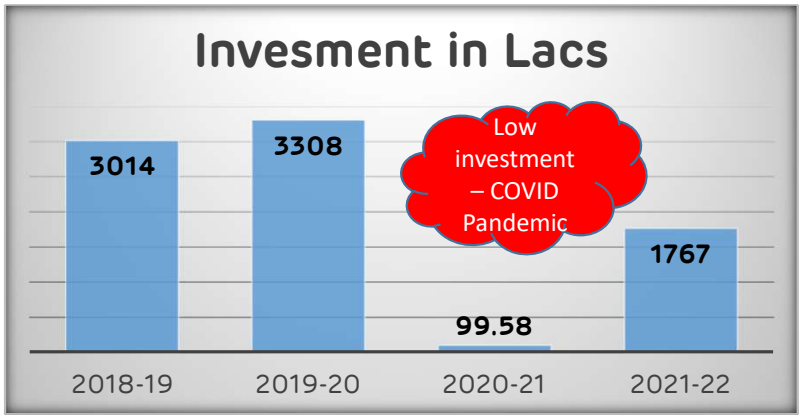
Summary of Investment and Energy saving



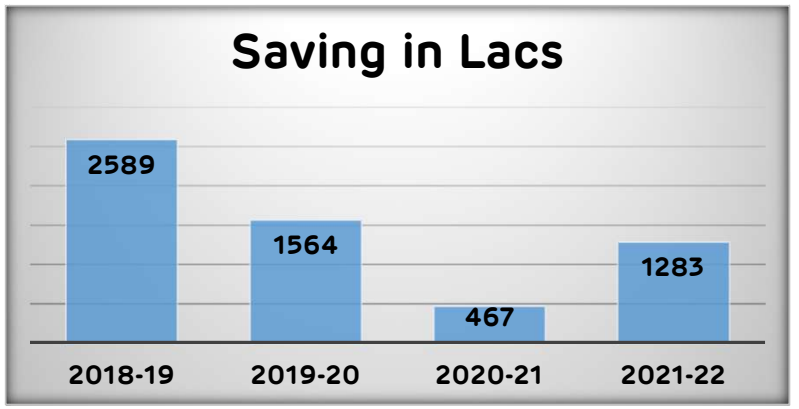
Coal saving in 4 Years – 66839 MT



Energy saving in 4 Years – 90.86 Million Kwh



Investments in 4 Years – 8188 Rs Lacs



Financial Impact in 4 Years–5904 Rs Lacs

Energy Conservation Projects 2021-22

Energy Saving Project	Savings /Year (Rs. Lacs)	Investments (Rs. Lacs)
Replacement of HP & IP Turbine - OH of LP Turbine	1657.00	1238.65
Reduction in slip loss of BFP 1B hydraulic coupling in U-1	101.00	0.63
De–staging -CEP 1B	3.54	9.0

Energy Conservation Projects 2020-21

Energy Saving Project	Savings /Year (Rs. Lacs)	Investments (Rs. Lacs)
HP Heater Performance improvement by attending parting plate leakage	249.00	0.25
Replacement of BFP Cartridge in BFP 1A	160.60	58
Installation of Energy Efficient Lighting	15.70	30.33

Energy Conservation Projects 2019-20

Energy Saving Project	Savings /Year (Rs. Lacs)	Investments (Rs. Lacs)
Unit-2 Replacement of IP turbine by new one and Overhauling of LP Turbine.	1007	3212
Unit-2 Heat rate improvement due to HP Heater Performance attending of parting plate leakage	75	1
Unit-2 Air Preheater – Seals are upgraded by double seal and Flue gas duct leakage and replacement of flue gas duct expansion bellows	265	44
De – staging of impeller Condensate Extraction Pump in Unit-2	1	10
Installation of CEP VFD in Unit-1	33	40
Improvement in Heat rate by jet cleaning of APH basket in unit-2	183	0.75

Energy Saving Project Implemented in FY 2021-22

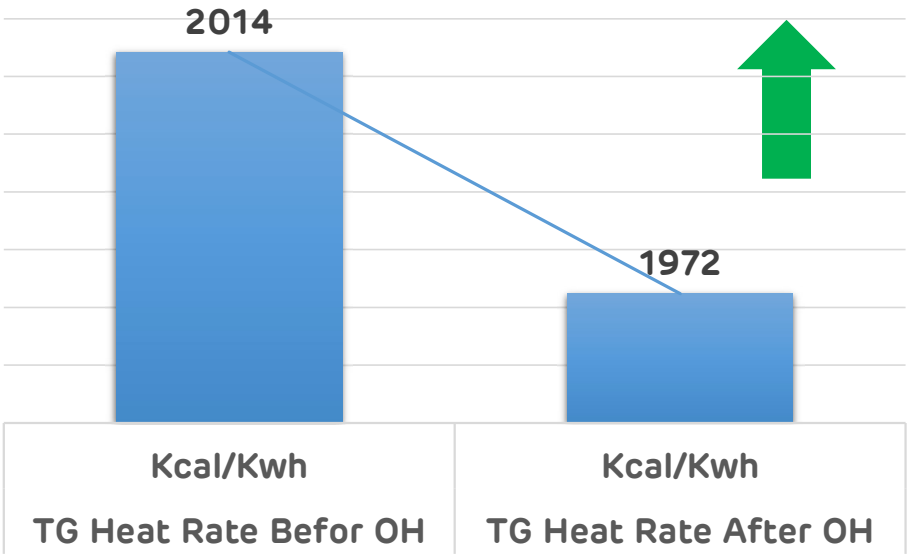
Replacement of HP & IP Turbine - OH of LP Turbine

Refurbished HP turbine

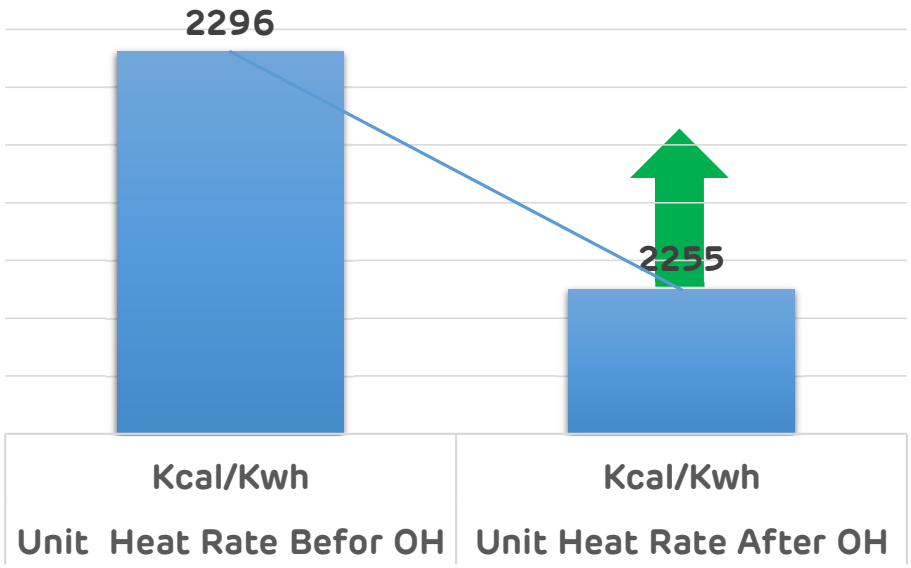
Refurbished IP turbine

Servicing LP turbine

Performance improvement in Heat Rate



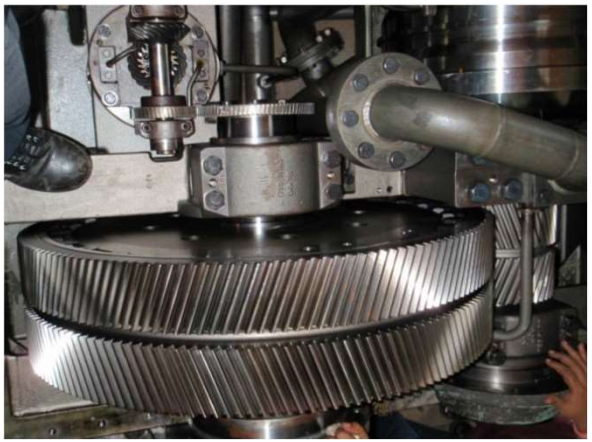
2.08 % Reduction in TG Heat Rate

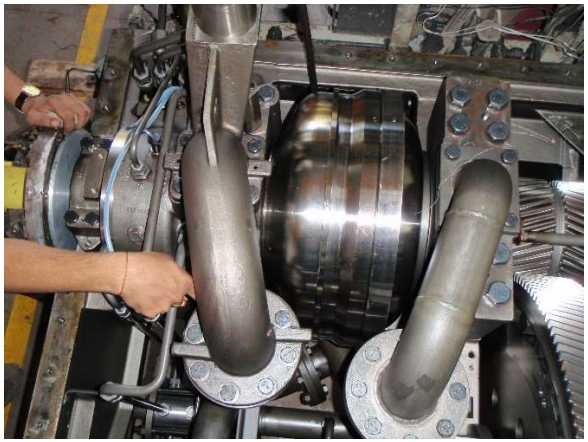


1.80 % Reduction in Unit Heat Rate

Improvement in Heat rate in Kcal/Kwh	Investment in Rs Crs	Net saving in Rs Cr	Saving of coal in MT	CO_2 Reduction in MT
41	16.57	12.10	20568	29885

Reduction in slip loss of BFP 1B hydraulic coupling in U-1



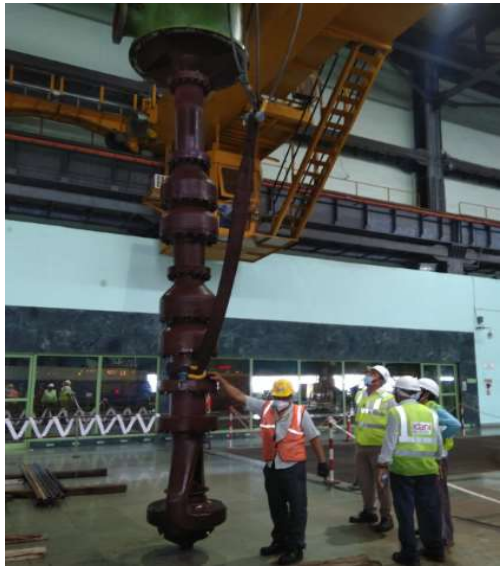


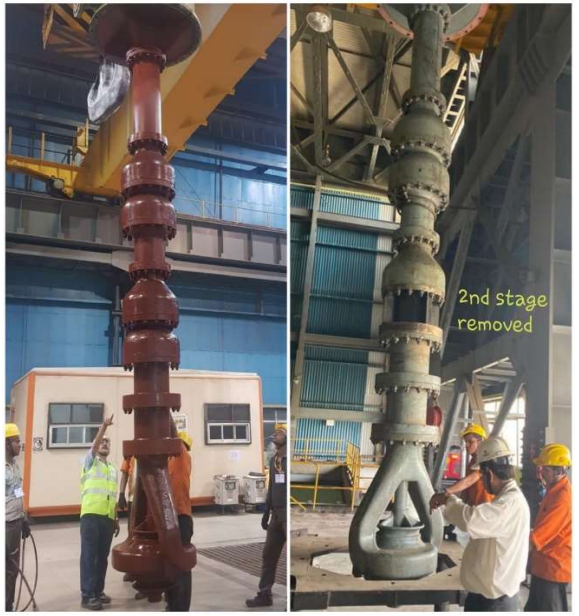
Modified Gear ratio retrofitted in existing hydraulic coupling

Gear Ratio changed from 165/41 to 133/36

Improvement in APC in KW	Investment in Rs Crs	Net saving in Rs Crs	Saving of coal in MT	CO_2 Reduction in MT
584	1.05	1.61	1003	1457

De–staging -CEP 1B





Improvement APC in KW	Investment in Rs lacs	Net saving in Rs Lacs	Saving of coal in MT	CO_2 Reduction in MT
83	9.0	2.54	16	23

5.0 Innovative projects

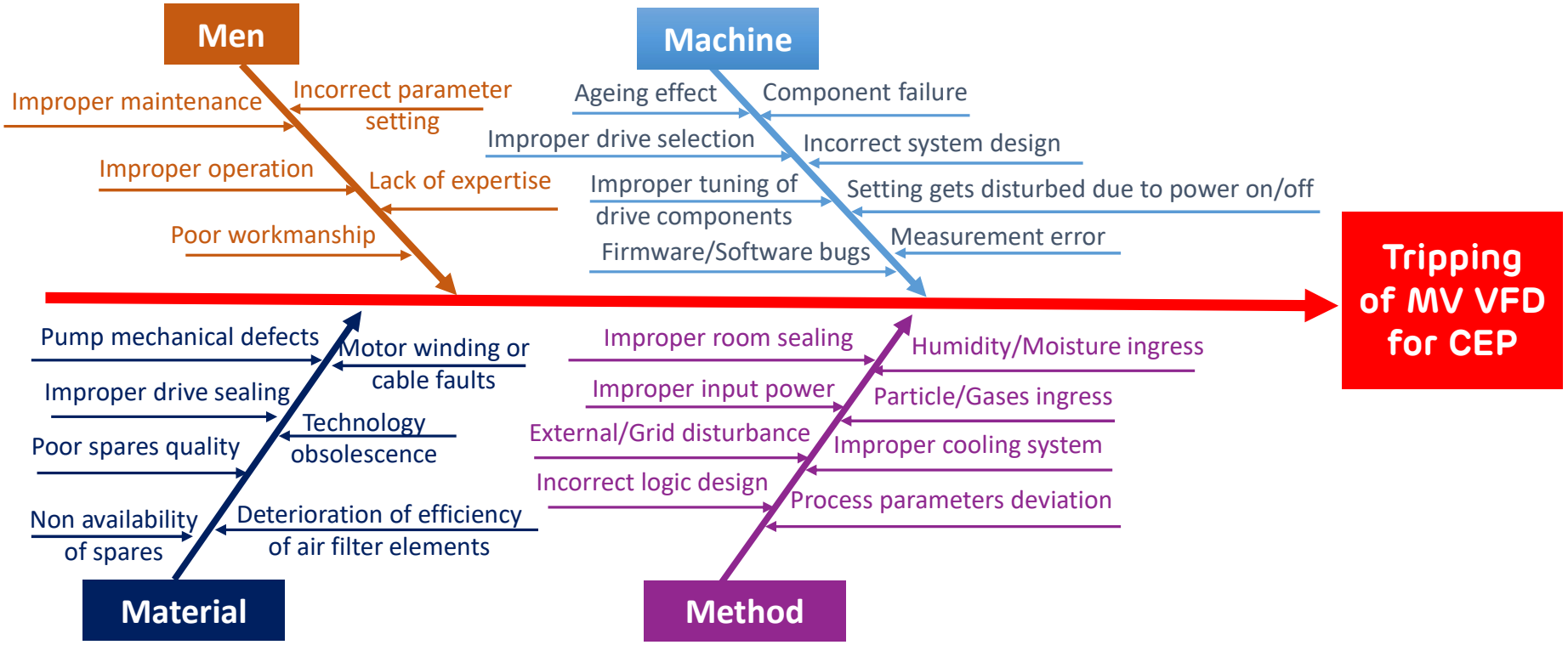
Reduction in CEP MV VFD Tripping

Problem Statement

Increase in the tripping of Medium Voltage Variable Frequency Drive (MV VFD) installed for Condensate Extraction Pump (CEP) encountered in last 3 years resulting in loss of energy saving opportunity of 1.126 Mus and generation loss of 1.303 Mus.

Reduction in CEP MV VFD Tripping

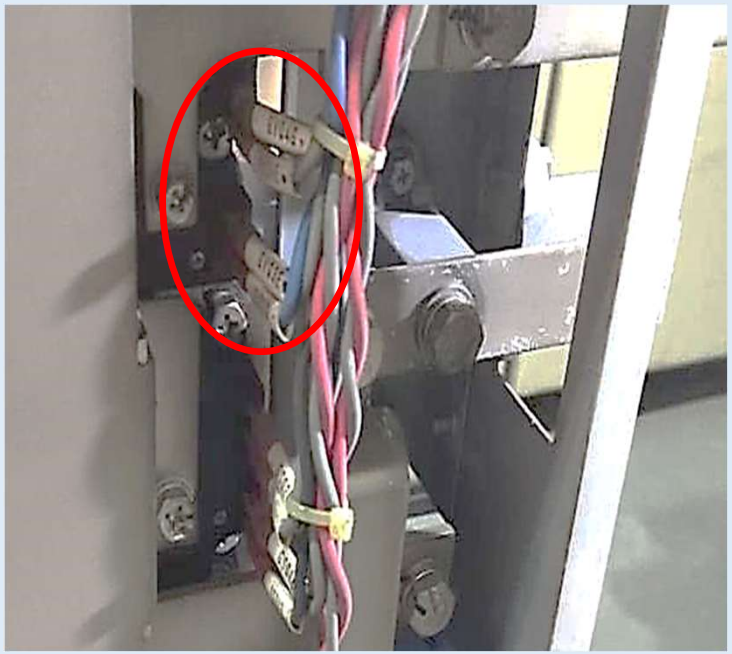
Cause Effect Diagram



Ishikawa Diagram (Fish-bone Analysis)

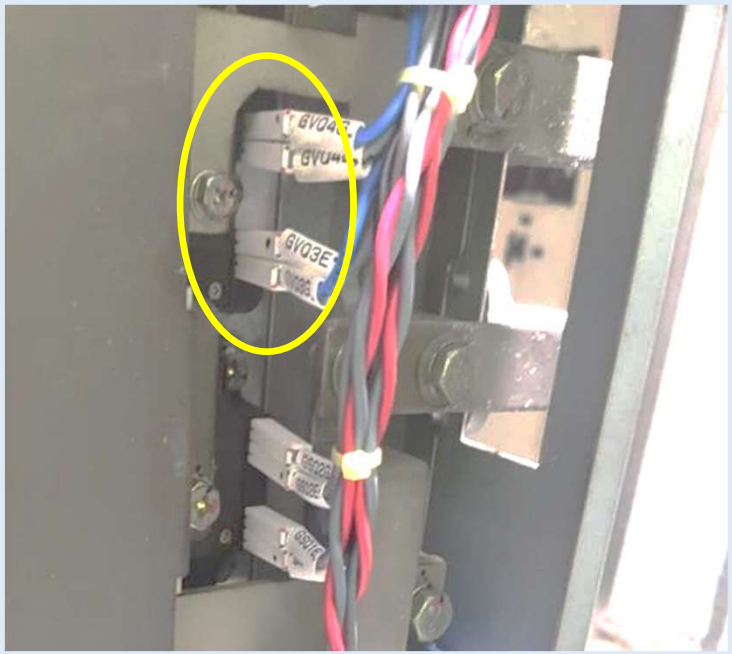
Reduction in CEP MV VFD Tripping

IGBT Terminal Connection Modification



BEFORE

Existing IGBT connections with no insulating sleeves at gate terminal



AFTER

Covering with the Insulating Sleeves at gate terminal

Reduction in CEP MV VFD Tripping

Cooling System Modification

BEFORE

Cooling system duct design was not proper and open circuit cooling system was used

AFTER

Cooling system duct design modified and converted to closed circuit

Reduction in CEP MV VFD Tripping

Overhauling of VFD

SOP for Overhauling of MV VFD Power Cells

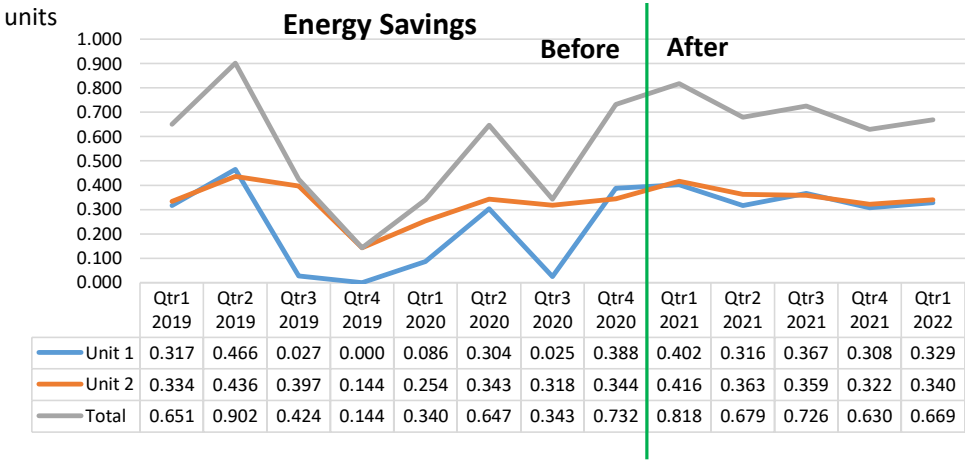
1) Remove power cell fiber optic cables and power cell connection links
2) Dismantle and remove all power cells from VFD panel
3) Carry out thorough cleaning of power cell internals using vacuum cleaner and manually using cloth
4) Ensure connection tightness of power cell internal components e.g., IGBT and control cards
5) Ensure there is no power cell component damage, deformation, discoloration and rectify same if required.
6) Carefully assemble all power cells in place again and restore all connection links and fiber optic cables




Reduction in CEP MV VFD Tripping

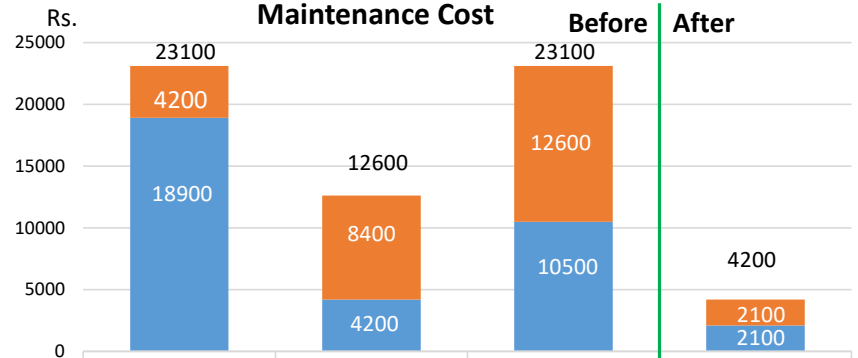
Result Monitoring Dashboard

Energy Savings



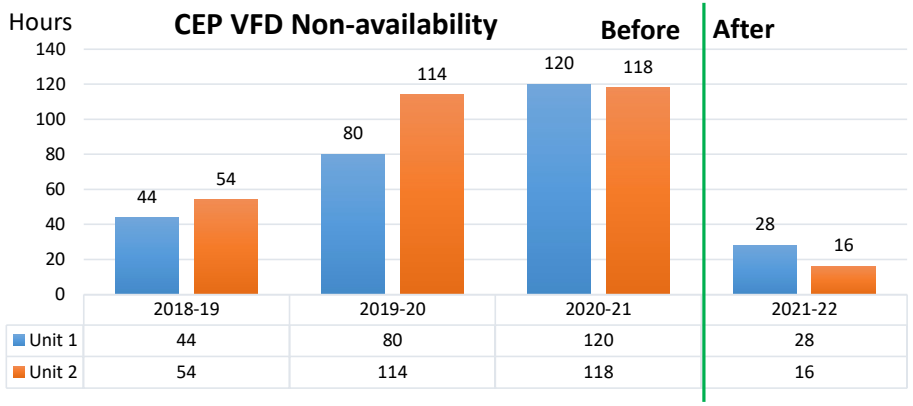
	Qtr1 2019	Qtr2 2019	Qtr3 2019	Qtr4 2019	Qtr1 2020	Qtr2 2020	Qtr3 2020	Qtr4 2020	Qtr1 2021	Qtr2 2021	Qtr3 2021	Qtr4 2021	Qtr1 2022
Unit 1	0.317	0.466	0.027	0.000	0.086	0.304	0.025	0.388	0.402	0.316	0.367	0.308	0.329
Unit 2	0.334	0.436	0.397	0.144	0.254	0.343	0.318	0.344	0.416	0.363	0.359	0.322	0.340
Total	0.651	0.902	0.424	0.144	0.340	0.647	0.343	0.732	0.818	0.679	0.726	0.630	0.669

Maintenance Cost



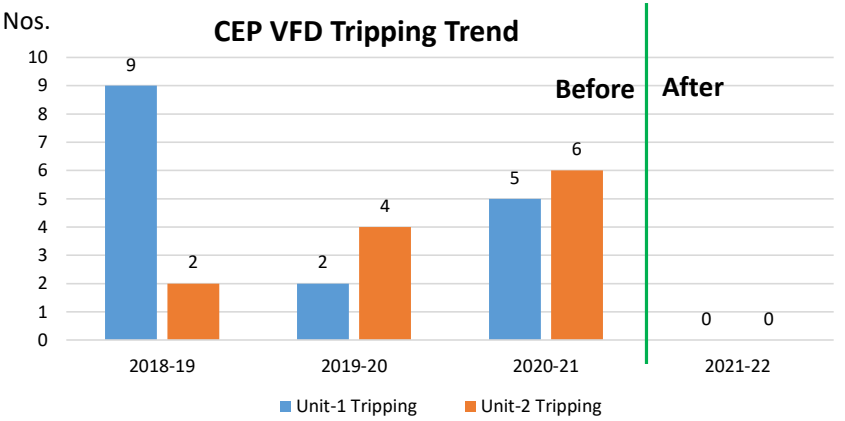
	2018-19	2019-20	2020-21	2021-22
Unit-2	4200	8400	12600	2100
Unit-1	18900	4200	10500	2100

CEP VFD Non-availability



	2018-19	2019-20	2020-21	2021-22
Unit 1	44	80	120	28
Unit 2	54	114	118	16

CEP VFD Tripping Trend



6.0 Renewable Energy

Installation of 55 KW solar Power at ADM Building

- FY 2021-22 Solar Generation -68393.50 KWh
- FY 2021- 22 PLF – 14.20%
- Total Solar energy generation since inception -244022 KWh

New Initiative

- ADTPS also identified place for installation of another **550 KW Roof Top solar (Project Cost @ 360 Lacs)**
- **Roof Top solar at AAQM station**
- In plant, 160MW solar power generation area identified. This will be reduced 149 Mus of auxiliary power consumption. (Assuming 17% PLF)

7.0 Environment Management-Ash Utilization

adani Electricity

Dry Evacuation system 2005

It is the first of its kind of system installed in India. In classifiers – mixture of fly ash is separated into fine ash

Ash Gridding Unit 2011

First unit being used in the any power plant in Asia for improving coarse ash utilization

To grind the coarse ash into finer size of less than 45 µm, thus improved total ash utilization

300 MT Ash Storage Silo 2014-15

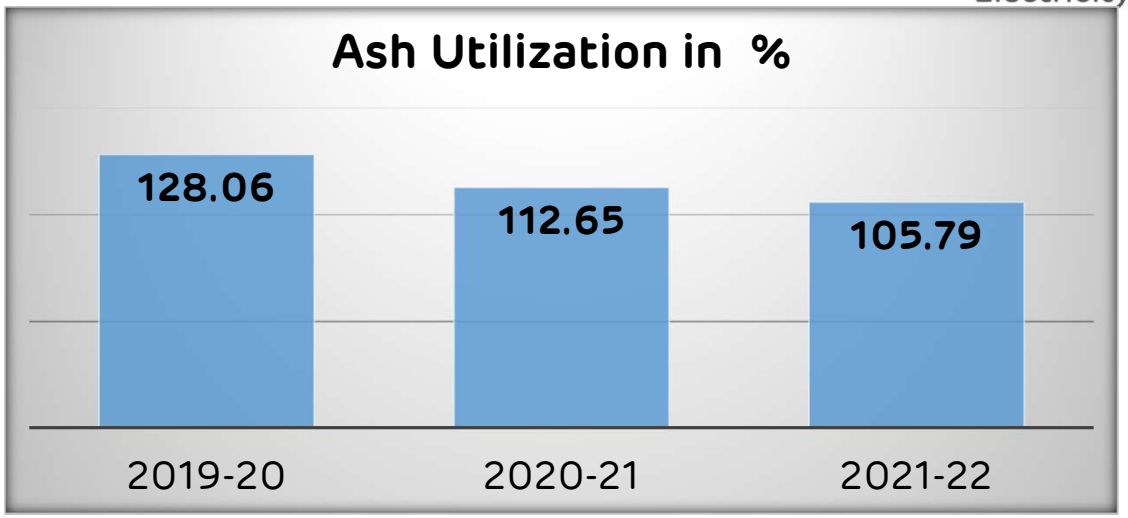
To counter day - to - day fly ash demand variation in availability of ash lifting vehicle

100% ash utilization since FY 2014

Dry Ash Silo's & Ash Grinding Unit

adani Electricity

Fine & Coarse Ash Silo's

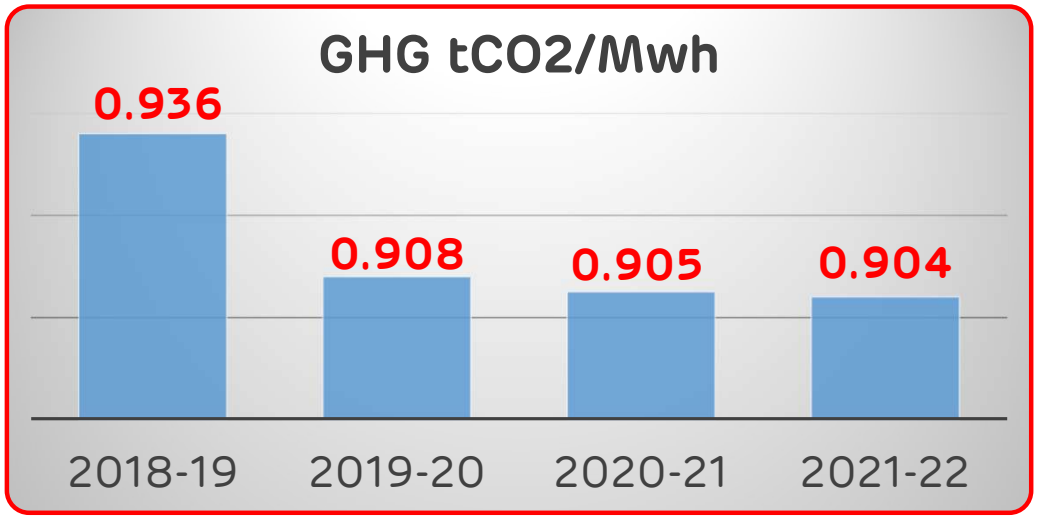


Ash Grinding Unit & 300 MT Silo

Particulars	UOM	2019-20	2020-21	2021-22
Ash Generated	Tons	425076	375348	634391
Ash Utilization	%	128.06	112.65	105.79
Ash Utilized in manufacturing of cement/concrete	%	68.35	56.18	58.38
Ash Utilized in Fly Ash Bricks	%	59.72	56.47	47.41

8.0 Environment Management Emission

Assurance on AEML GHG Emissions & Renewable Energy Mix FY22



- Successfully completed and published AEML GHG Emissions & Renewable Energy Mix Assurance statement.
- Showcase our progress against committed sustainability KPI's.

DNV

GHG Emissions (Scope-1 & Scope-2) Summary

Scope	Emission Source	Total GHG Emissions 2021-22 (tCO2e)
Scope-1	Fossil fuels (Coal, Diesel, Petrol, LDO, LPG) used in stationary and mobile equipment's and coal used in electricity generation process. SF6 and Refrigerants used in operations & maintenance activities	2,690,622
Scope-2	Emissions arising from consumption of purchased electricity towards auxiliary power consumed in generation, transmission and distribution assets owned by AEML and T&D losses incurred	547,204

GHG Emission Intensity (KPI-2):

	Boundary of emission within the company	FY-2018-19	FY-2021-22
GHG tCO_2e	AEML: Scope 1 & Scope 2	3,750,069	3,237,826
EBITDA in INR- in Crore	AEML	1,664	2,083
Emission Intensity (tCO_2e/ EBITDA in INR in Crore)		2,254	1,554

Statement of Competence and Independence

DNV applies its own management standards and compliance policies for quality control, in accordance with ISO IEC 17021:2015 – Conformity Assessment Requirements for bodies providing audit and certification of management systems, and accordingly maintains a comprehensive system of quality control including documented policies and procedures regarding compliance with ethical requirements, professional standards and applicable legal and regulatory requirements.

We have complied with the DNV Code of Conduct[2] during the assurance engagement and maintain independence where required by relevant ethical requirements as detailed in DNV VeriSustain. This engagement work was carried out by an independent team of sustainability assurance professionals. DNV was not involved in the preparation of any statements or data included in the Report except for this Verification Statement. DNV maintains complete impartiality toward stakeholders interviewed during the assurance process. DNV did not provide any services to AEML or its subsidiaries in the scope of assurance during FY 2021-2022 that could compromise the independence or impartiality of our work.

For DNV

Vadakepatth, Nandkumar — Digitally signed by Vadakepatth, Nandkumar — Date: 2022.06.27 17:13:48 +05'30'

Vadakepatth Nandkumar
Lead Verifier
DNV Business Assurance India Private Limited, India.

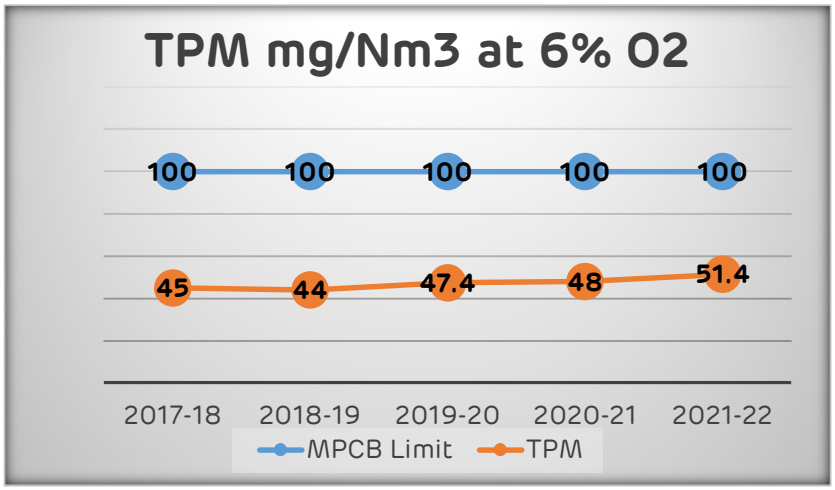
Radhakrishnan, Kiran — Digitally signed by Radhakrishnan, Kiran — Date: 2022.06.27 16:50:02 +05'30'

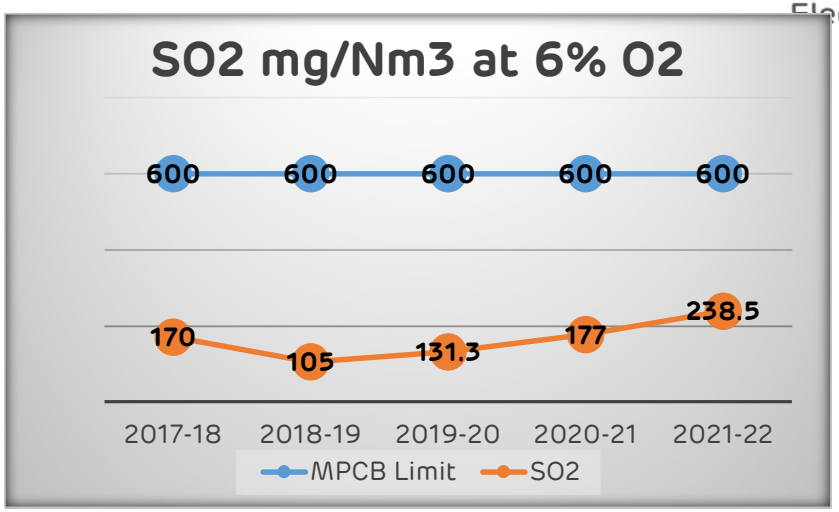
Kiran Radhakrishnan
Technical Reviewer
DNV Business Assurance India Private Limited, India.

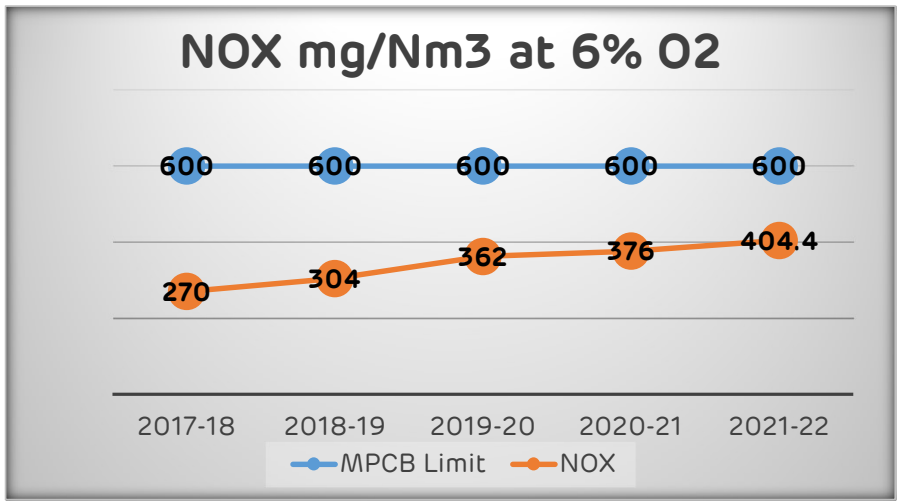
Bengaluru, India, 27th June 2022.

AA1000
Licensed Report
000-10/V3-22PDF

Stack Parameters







PAT Cycle

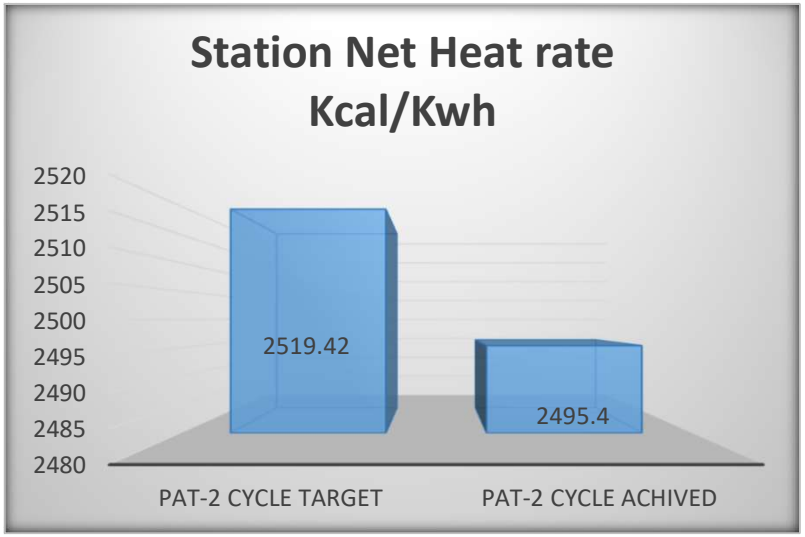
ESCerts ISSUED\ENTITLED TO BE PURCHASED

PAT Cycle	ESCerts Claimed	ESCerts Issued	Entitled to be Purchased	Eligibility Type	Sr.No. From	Sr.No. To
PAT(1)2012-2015	4591	4591		Seller	01-03087601-TPP0073MH-160217	01-03092191-TPP0073MH-160217
PAT(2)2016-2019	8749	8749	0	Seller	02-01621152-TPP0073MH-180821	02-01629900-TPP0073MH-180821

TRADING

PAT(1)2012-2015 PAT(2)2016-2019

Banked ESCert: From Previous Cycle	Eligibility Type:	ESCerts Issued:	Opening Balance: (Banked ESCerts From Previous Cycle + ESCerts Issued)	Closing Balance:	Total Sold:
0	Seller	4591	4591	4591	0



Reduction in SHNR by 24 Kcal/Kwh

Successful completion of PAT-1 & PAT -2 Cycle with gain of 4591 and 8749 Escerts

Certificate

Single Use Plastic Assessment Certificate

Assessment Statement on
Management of Single Use Plastic

For

ADANI ELECTRICITY MUMBAI LTD.
ADANI DAHANU THERMAL POWER STATION

DAHANU ROAD, PALGHAR – 401 606, MAHARASHTRA, INDIA.

Bureau Veritas (BVTPL) confirms that the assessment of the management of Single Use Plastic (SUP) at Adani Dahanu Thermal Power Station, has been carried out by means of interviews, site inspection and review of documents related to the management of SUP for the

Reporting Period: "1st Jan 2020 to 15th December 2020"

Based on the assessment, it is hereby confirmed that the organisation has established a system to manage SUP by establishing methods to Identify, Classify, Segregate, Store and Dispose the plastic materials of single use in application.

The organisation has initiated actions to eliminate SUP received at its operational boundary. The list of Single Use Plastic identified and phased out from the operational boundary, is presented in Appendix A

To check this certificate validity please call: +91 22 6274 2000.

Further clarifications regarding the scope of this Assessment Statement may be obtained by consulting the organisation.

Certificate Number: IND21.0003/SUP Date: 12 February 2021

Jagdheesh N. MANIAN
Head – CERTIFICATION, South Asia
Commodities, Industry & Facilities Division

Certification / Managing Office Address: Bureau Veritas (India) Private Limited (Certification Business) 72 Business Park, Marol Industrial Area, MIDC Cross Road "C", Andheri (East), Mumbai – 400 093, India.

Page 1 of 2

Zero Waste to Landfill Certificate

Assessment Statement on
Claim on Zero Waste to Landfill

For

ADANI ELECTRICITY MUMBAI LTD.
ADANI DAHANU THERMAL POWER STATION

DAHANU ROAD, PALGHAR – 401 606, MAHARASHTRA, INDIA.

Bureau Veritas India (BVTPL) confirms that the assessment of claim on "Zero Waste to Landfill" has been carried out at Adani Dahanu Thermal Power Station by means of interviews, site inspection and review of documents related to the management of waste for the Reporting Period: "1st January 2020 to 31st January 2021"

Based on the assessment, it is hereby confirmed that the organisation has established a system to manage waste generated by establishing processes for identification, classification, segregation, storage, reuse and disposal.

Based on the assessment of the system adopted by the organisation, during reporting period, it is hereby confirmed that the diversion rate achieved for the reporting period **1st January 2020** to **31st January 2021** is 99.87% on mass balance basis.

Details of computation of Diversion Rate is presented in the Appendix A of this Assessment Statement

To check this certificate validity please call: +91 22 6274 2000.

Further clarifications regarding the scope of this Assessment Statement may be obtained by consulting the organisation.

Certificate Number: IND.21.0087/BA-ZWL Date: 22 April 2021

Jagdheesh N. MANIAN
Head – CERTIFICATION, South Asia
Commodities, Industry & Facilities Division

Certification / Managing Office Address: Bureau Veritas (India) Private Limited (Certification Business) 72 Business Park, Marol Industrial Area, MIDC Cross Road "C", Andheri (East), Mumbai – 400 093, India.

Page 1 of 2

Water Efficiency Management System

ADANI ELECTRICITY MUMBAI LIMITED
ADANI DAHANU THERMAL POWER STATION

DAHANU ROAD, DISTRICT PALGHAR – 401 606, MAHARASHTRA, INDIA.

Bureau Veritas (India) Pvt. Ltd. (Certification Business) certify that the Management System of the above organisation has been audited and found to be in accordance with the requirements of the management system standards detailed below

Standard

ISO 46001:2019

Scope of certification

GENERATION OF ELECTRICITY IN COAL BASED THERMAL POWER PLANT OF 2 X 250 MW CAPACITY

Original cycle start date: 08 June 2021
Expiry date of previous cycle: Not Applicable
Certification Audit date: 22 May 2021
Certification cycle start date: 08 June 2021

Subject to the continued satisfactory operation of the organization's Management System, this certificate expires on: 07 June 2024

Certificate No. IND.21I0108/BA-WEM Version : 1 Revision date: 08 June 2021

Certification Authority
Jagdheesh N. MANIAN
Head – CERTIFICATION, South Asia
Commodities, Industry & Facilities Division

Local office: Bureau Veritas (India) Private Limited (Certification Business) 72 Business Park, Marol Industrial Area, MIDC Cross Road "C", Andheri (East), Mumbai – 400 093, India.

Further clarifications regarding the scope of this certificate and the applicability of the management system requirements may be obtained by consulting the organization. To check this certificate validity please call +91 22 6274 2000.

9.0 Best Practices in the plant

Functionalities of Video Analytics

- Identify & capture the PPE related deviations through AI based application software
- Alerts immediately send to Monitoring PCs in Safety dept & PCR
- SMS / WhatsApp alert is be given to safety In-charge
- Auto Announcement is done in that area

Digitization

SAP

Digital Logbooks

QR code-based Safety & Environment Data sheet.

Knowledge Management through MS teams

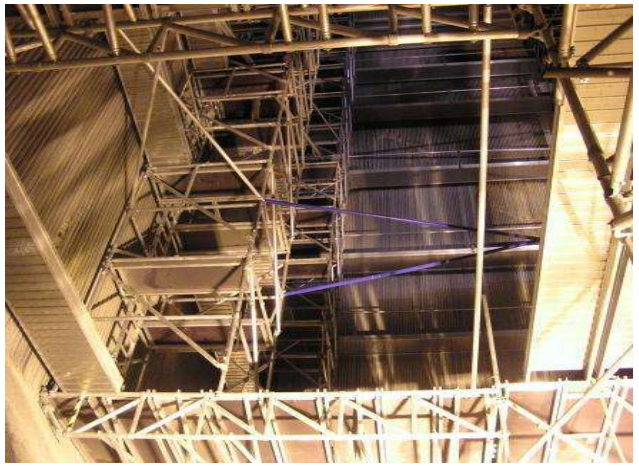
Digital approval portal - Esign

Remote Operation of Stack analyzer moisture removal system

Maintenance and Reliability

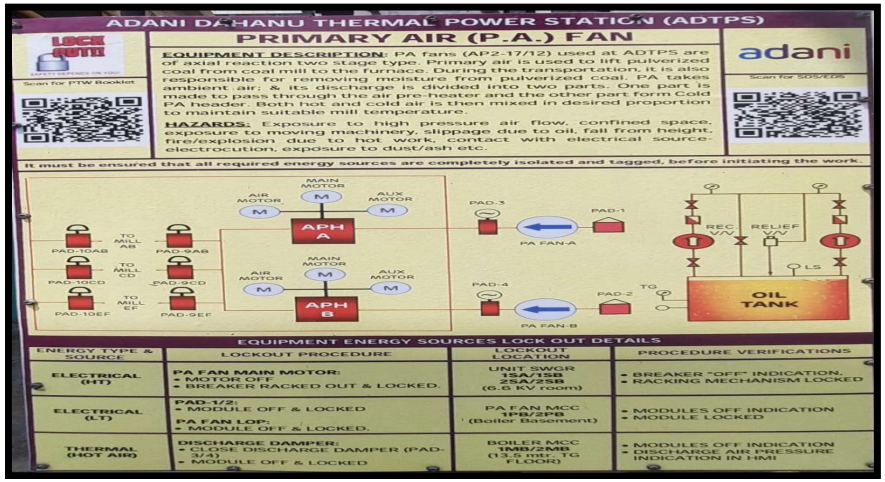
- Use of modular concept that allows the replacement of major assemblies in a minimum amount of time and expenditure (e.g. HP turbine module, CW debris filter, Primary & Secondary fans rotor, Boiler feed pump cartridge, vacuum pump, CW pump)
- Modular Scaffolding for Boiler Overhauling

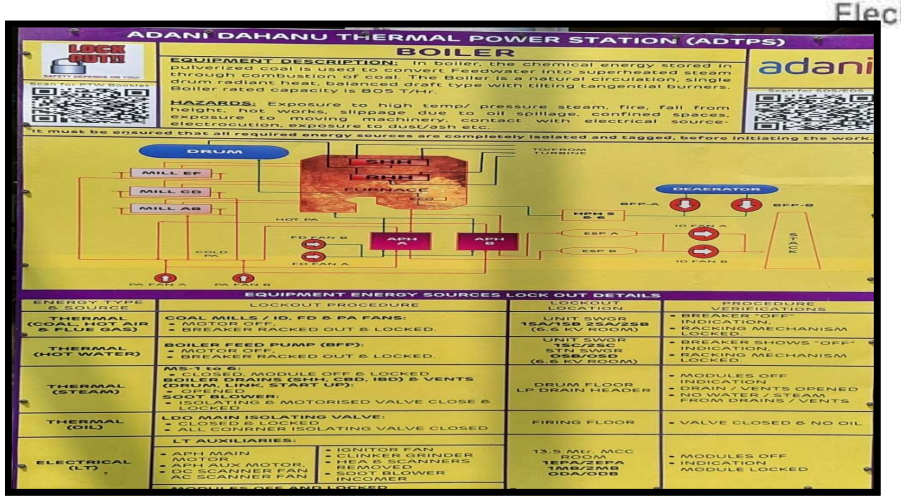
IP Turbine Module



Scaffolding

Best Practices – Safety -Precaution Boards at Site

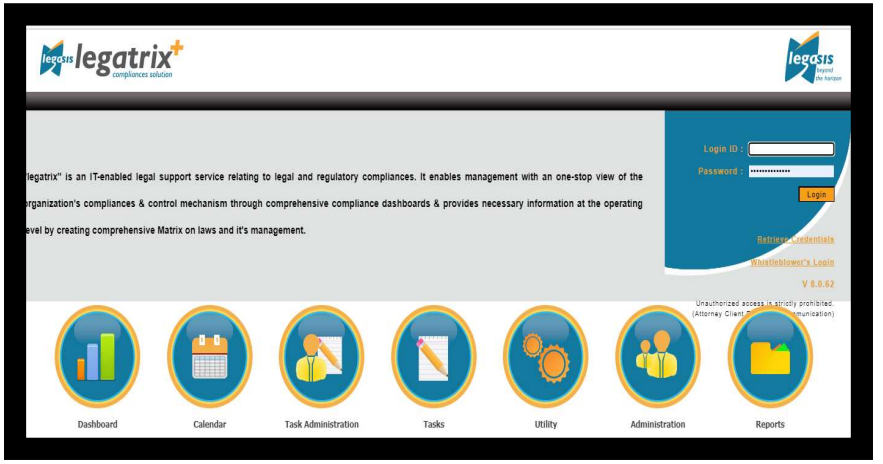




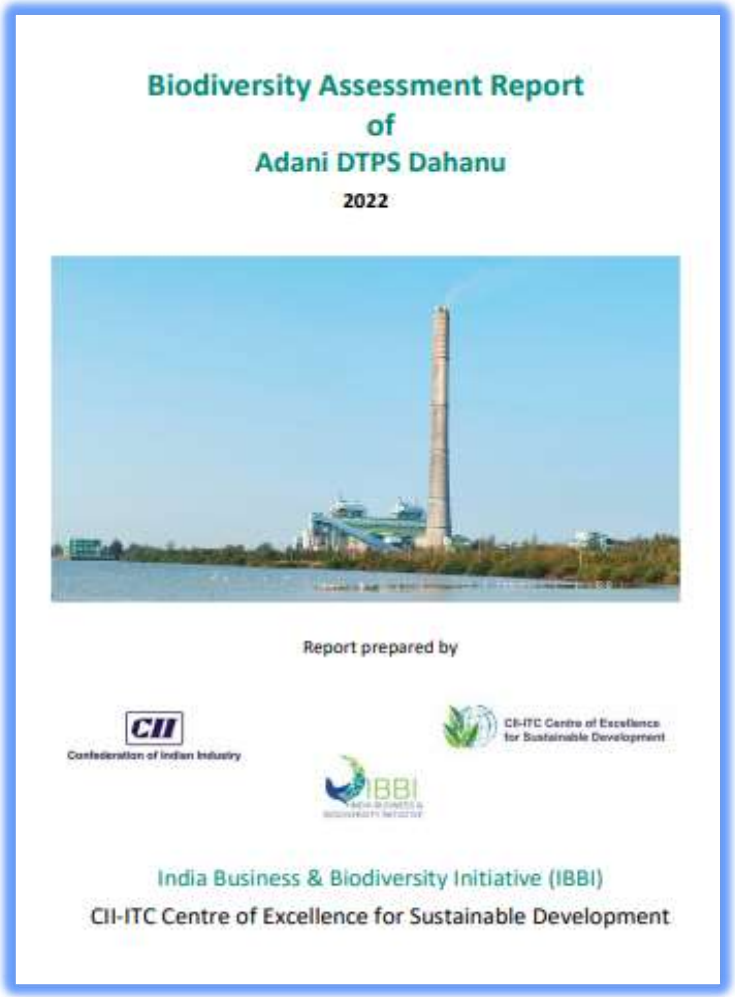
Legatrix

Statutory Compliance monitored through Legatrix

- Legal
- Commercial
- Human Resources
- Regulatory



ADTPS – Biodiversity assessment by CII



Highlights of the assessment

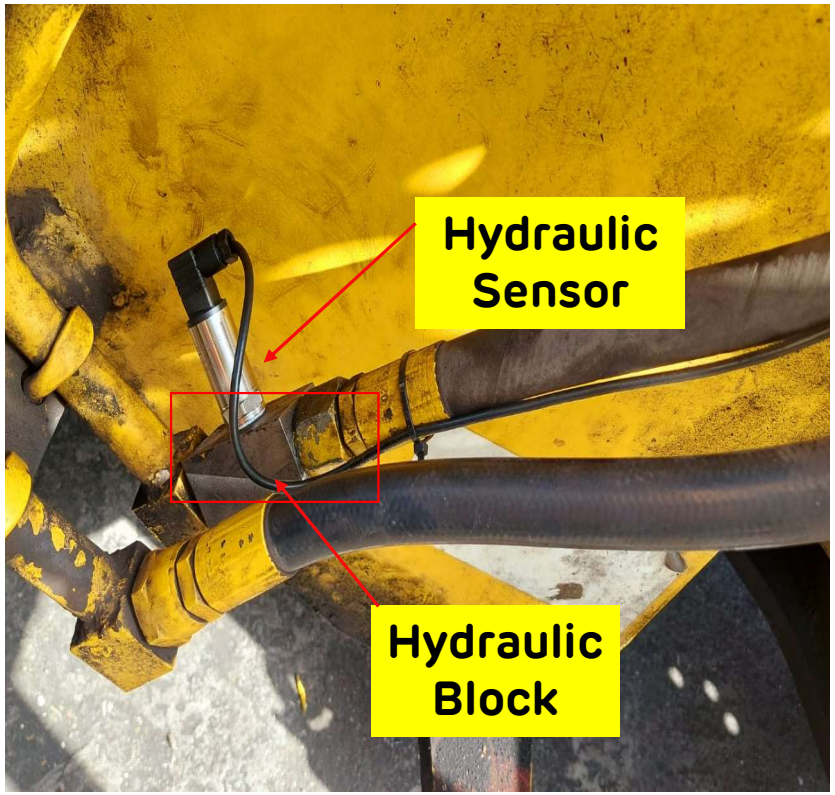
1. Total floral diversity of ADTPS after second assessment is 224 which includes 91 tree species, 28 shrub species, 57 herb species, 22 grass species and 26 climber species.
2. Four nos. of mangrove species documented.
3. Total of 90 species of birds belonging to 42 families have been documented from the Plant premises and study area.
4. The mammalian diversity of Plant premises and study area was represented by 8 species. The Indian Fruit bat was the most common mammalian species recorded.
5. Pugmark of Small Indian Civet (*Viverricula indica*) found
6. Scat of Leopard (*Panthera pardus fusca)* found
7. 7 Species of reptiles were recorded in the Plant premises and study area. It included 4 snake species, 2 lizards & a gecko species
8. 29 species of butterflies were recorded during the study.
9. The most recorded butterfly species are Common Grass Yellow (*Eurema hecabe*) and Common Emigrant (*Catopsilia pomona*).

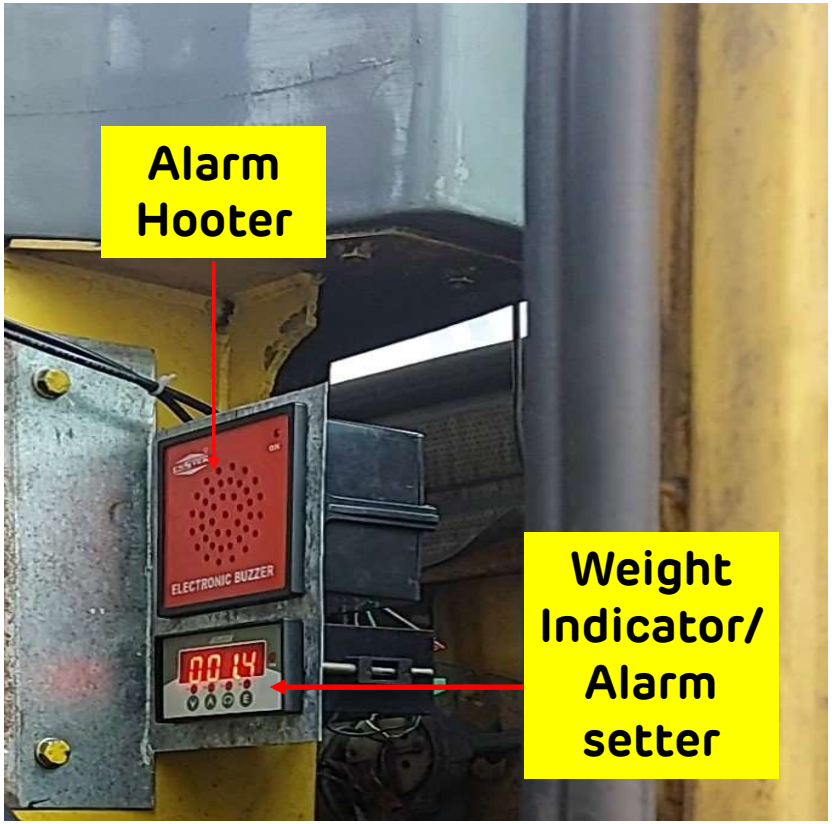
Innovation – Inhouse development of technology

Online Vibration Monitoring of Boiler Clinkering

Wireless rechargeable Hand Lamp

Safety improvement by providing safe load operation on wheel loader





Demo: Wheel Loader Safe Operation

Model development

Sr. No.	Model Description
1	Solar PV Generation Demo Kit
2	Hydro Power Generation Demo Kit
3	Wind Power Generation Demo Kit
4	Transmission Line Safety Kit
5	Level Control Demo Kit
6	Sound System Demo Kit
7	Internet of Things (IoT) Demo Kit
8	Mobile Tower Unit for Communication Sys Demo
9	De-mineralized (DM) Plant Kit
10	Faraday's Law of Electromagnetic Ind. Demo Kit
11	RLC Circuit for Grid Modelling Demo Kit
12	Loco Engine with Rail Track Kit
13	Wheatstone Bridge Demo Kit
14	ELCB testing Demo Kit
15	Air conditioner Demo Kit
16	Bus Changeover Model
17	Lead Acid Battery Demo Kit
18	Road Model Civil

Model Developed for college students

adani Electricity

Working model residential rooftop solar energy system

Working model of D.M. PLANT

ADTPS CSR Initiatives - Integrated Tribal development project

- **Livelihood Support: A**DTPS in association with "NABARD" initiated a program "Integrated Tribal Development Project " in selected 11 villages of Dahanu
- Project is to cater economic upliftment of tribal covering 1000 land owing families
- Landless tribal registers for livelihood support in Saloon shop, Goat farming, Aata-Chakki (Ghar ghanti), Tailoring shop, Kirana shop & Carpentry business.

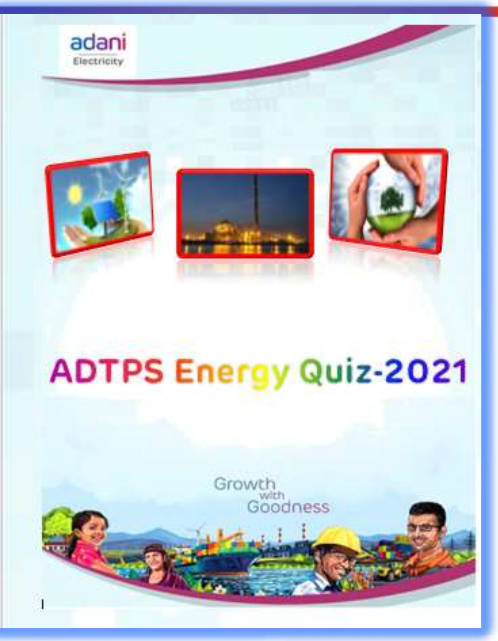
ADTPS CSR Initiatives

10.0 Teamwork Employee involvement & Monitoring

Energy Oath in Daily Plant Meeting

Drawing Competition for Colony children

Energy Quiz and KM for ADTPS Employees



Tue 14/12/2021 14:35
PANDURANG JALKOTE
Energy Conservation Quiz -2021
To Dahanu Users

Energy Quiz-2021 Answer Sheet.xlsx 16 KB
Energy Quiz Question 2021.docx 1 MB

Dear All,

Energy Management Cell is celebrating Energy Conservation Week from 14th December - 2021

We have arranged Quiz competition to refresh the knowledge about energy conservation.

Your participation will be highly appreciated.

Rules:

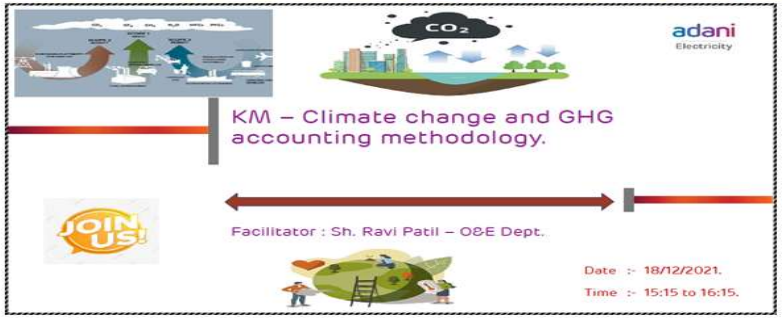
1. More than one answer for any question shall be treated as wrong.
2. Deadline for sending entries is 17:30 hrs 20th Dec-2021
   a) e.mail **answer sheet** to ravi.patil@adani.com or suhas.patil@adani.com
   b) Those who do not have email facility can send through Colleague's/friend's email account

Energy Management Cell

The Greenhouse Gas Protocol (GHG Protocol) is the most widely used international accounting tool for government and business leaders to understand, quantify, and manage greenhouse gas e

Yearly Sustainability measurement of Business on various parameters like Environment, safety, Governance, etc & accordingly Business ranking is now followed widely in India & worldwide.

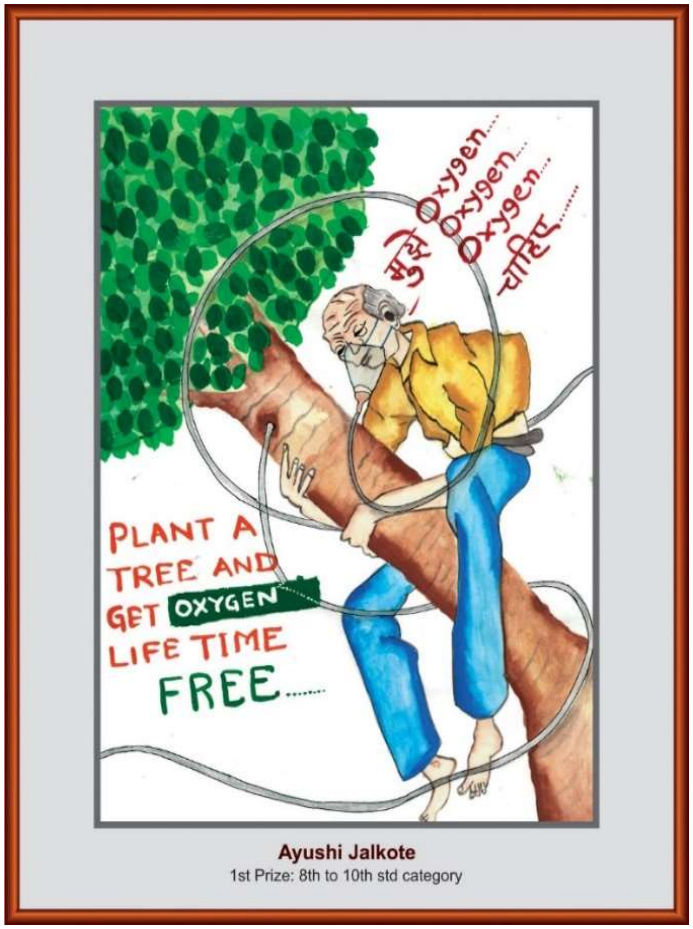
On the occasion of "Energy Conservation Week", to know more on the subject, TTC along with O&E Department has arranged a KM as detailed below:



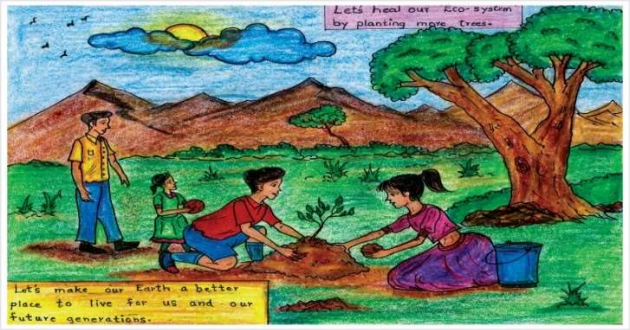
Energy & Environment Samwad with children

World Environment Day Celebration – 5th June'21

Tree Plantation – More than 600 nos of Mango, Jamun & Casuarina plants were planted



Ayushi Jalkote
1st Prize: 8th to 10th std category



Ashwin Vijay

Drawing & Quiz Competition for Colony Children

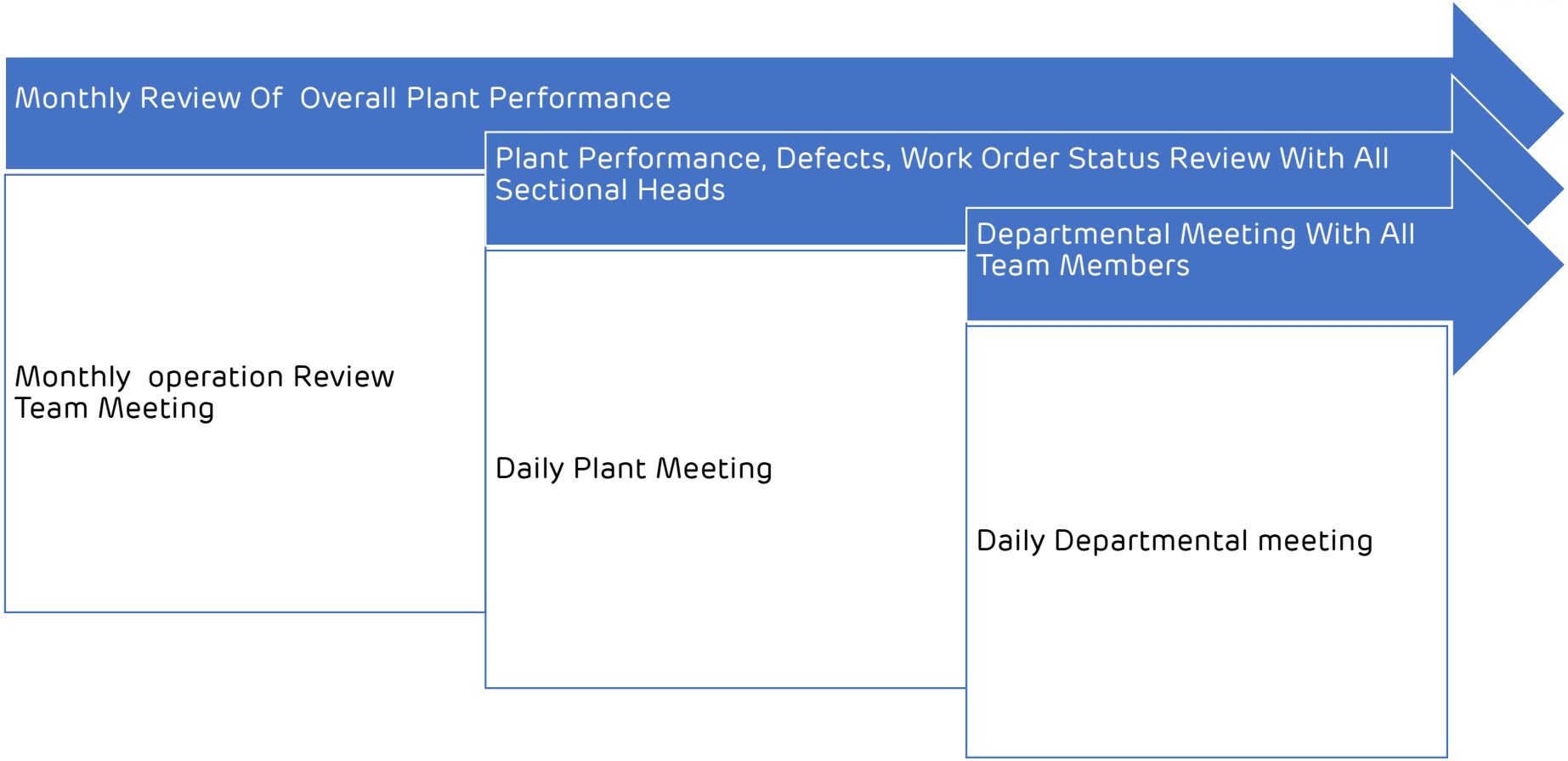
Energy management system at ADTPS

MIS for Performance Monitoring

adani Electricity

- Daily Energy Deviation Report
- Generation Loss Classification Report
- Monthly Performance test
- Monthly Building Energy Deviation Report
- Critical Management report
- Daily Heat Rate Break Up Loss Report
- Mill and BFP changeover report
- Area wise Auxiliary Monitoring Report
- Preoutage survey before overhauling
- Post outage survey after overhauling with economical impact

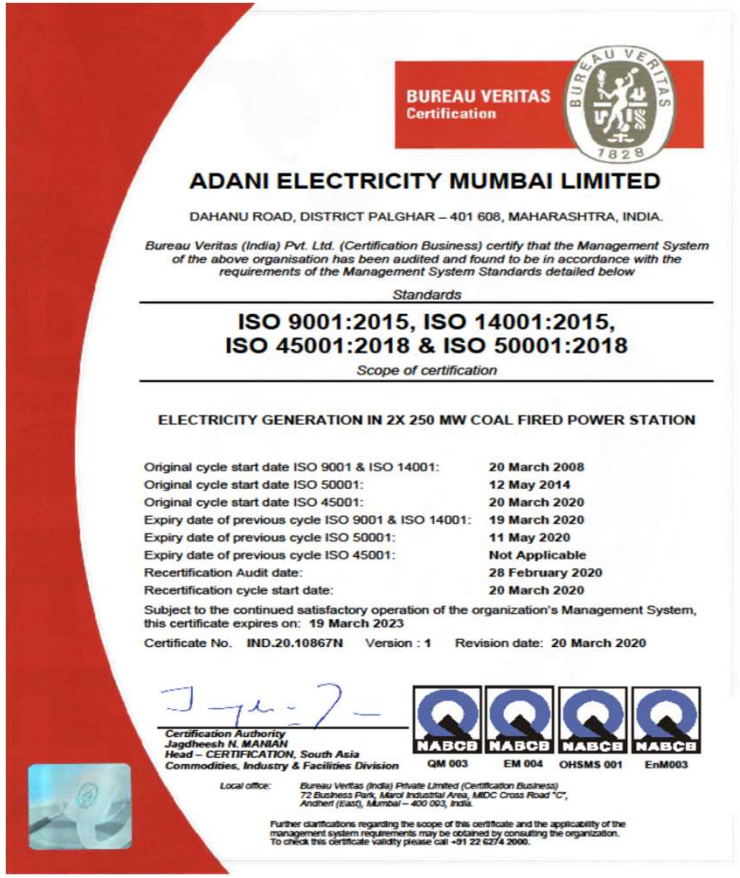
Performance Review



10.0 Long Term Vision on Energy Efficiency

Schemes	Dept	Cost Rs Crs
IP Turbine - New casing procurement & rotor refurbishment	Mech	27
Refurbishment of BFP system	Mech	2.00
Procurement of APH baskets	Mech	2.30
Refurbishment of flue gas duct	Mech	0.75
Renovation of lighting system	ELM	0.70
Procurement of energy efficient HT/LT motors	ELM	0.40
Procurement of energy efficient sump pumps for Conveyor tunnels	CHP	0.30
Replacement of LT VFDs	ELM	0.30
Total Cost		**33.75**

11.0 Implementation of ISO 50001



BUREAU VERITAS
Certification

ADANI ELECTRICITY MUMBAI LIMITED

DAHANU ROAD, DISTRICT PALGHAR – 401 608, MAHARASHTRA, INDIA.

Bureau Veritas (India) Pvt. Ltd. (Certification Business) certify that the Management System of the above organisation has been audited and found to be in accordance with the requirements of the Management System Standards detailed below

Standards

ISO 9001:2015, ISO 14001:2015, ISO 45001:2018 & ISO 50001:2018

Scope of certification

ELECTRICITY GENERATION IN 2X 250 MW COAL FIRED POWER STATION

Original cycle start date ISO 9001 & ISO 14001:	20 March 2008
Original cycle start date ISO 50001:	12 May 2014
Original cycle start date ISO 45001:	20 March 2020
Expiry date of previous cycle ISO 9001 & ISO 14001:	19 March 2020
Expiry date of previous cycle ISO 50001:	11 May 2020
Expiry date of previous cycle ISO 45001:	Not Applicable
Recertification Audit date:	28 February 2020
Recertification cycle start date:	20 March 2020

Subject to the continued satisfactory operation of the organization's Management System, this certificate expires on: **19 March 2023**

Certificate No. **IND.20.10867N** Version : **1** Revision date: **20 March 2020**

Certification Authority
Jagdheesh N. MANIAN
Head – CERTIFICATION, South Asia
Commodities, Industry & Facilities Division

NABCB QM 003 NABCB EM 004 NABCB OHSMS 001 NABCB EnM003

Local office: *Bureau Veritas (India) Private Limited (Certification Business) 72 Business Park, Marol Industrial Area, MIDC Cross Road "C", Andheri (East), Mumbai – 400 093, India.*

Further clarifications regarding the scope of this certificate and the applicability of the management system requirements may be obtained by consulting the organization. To check this certificate validity please call +91 22 6274 2000.

- ✓ ADTPS is the first power plant in the world to implement Energy Management System (ISO 50001:2011).
- ✓ ADTPS has integrated all its business processes through Enterprise Resources Planning system SAP.
- ✓ The plant has established a comprehensive fuel management system. In view of logistic, economics, O&M challenges and environmental issues

Award - QCFI

adani Electricity

Quality Circle Forum Of India

MARKSHEET

for Allied Quality Concept presentation in NCQC 2021, Coimbatore

Registration No :V1600
Team/Circle Name :URJA
Organization Name:ADANI ELECTRICITY MUMBAI LIMITED

S.No	Section	Maximum Marks	Marks Obtained
1	Pre- Evaluation	100	91
2	Presentation Marks	50	39
3	Knowledge Test	50	22
		Total Marks	**152**
		Total Marks(Rounded)	**152**

Result : Par Excellence Award

30-Dec-2021
Date of Issue

Executive Director

Quality Circle Forum Of India

MARKSHEET

for Allied Quality Concept presentation in NCQC 2021, Coimbatore

Registration No :V1597
Team/Circle Name :VIRAT
Organization Name:ADANI ELECTRICITY MUMBAI LIMITED

S.No	Section	Maximum Marks	Marks Obtained
1	Pre- Evaluation	100	80
2	Presentation Marks	50	42
3	Knowledge Test	50	24
		Total Marks	**146**
		Total Marks(Rounded)	**146**

Result : Excellent Award

30-Dec-2021
Date of Issue

Executive Director

From Adani, ADTPS, Dahanu, 02 teams won Par Excellence (Urja Team) & Excellence (Virat) Award in NCQC & trailing mail received for participation in ICQCC

Adani Dahanu Thermal Power Station- CSR

We're listening.

adani™
Electricity

The power of service