



# BRIGHT FUTURE

Adani Power Limited

Sustainability Performance and Value Creation Report 2018-19

## **BRIGHT FUTURE**

India's energy industry is undergoing a transition, driven by the government's initiatives to boost the power sector and reduce the nation's dependence on fossil fuels. In this evolving operating landscape, Adani Power Limited (APL) has not only stayed resilient but has also grown stronger, which testifies to its business model's ability to create sustainable value.

At APL, sustainability is the utmost priority. We diligently follow responsible Environmental, Social and Governance (ESG) principles and have implemented effective corporate governance, robust risk management and stringent safety measures across our operations. We are confident that our conscientious efforts today will pave the way for a B'RIGHT' FUTURE.

A future where our environmental footprint is minimal.

A future where we exceed customer expectations, everyday.

A future where we empower communities in India.

Our Sustainability Performance and Value Creation Report 2018-19 outlines our constantly evolving business approach to continued progress towards a B'RIGHT FUTURE'.



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#### About Adani Group

#### **Group Overview**

The Adani Group is an integrated business conglomerate in India which consists of six publicly traded companies with combined revenues of \$13 billion.

Founded in 1988, Adani Group has grown to become a global integrated infrastructure player with businesses in key industry verticals - Resources (coal mining and trading), Logistics (ports, logistics, shipping and rail), Energy (renewable and thermal power generation, transmission and distribution), Agro (commodities, edible oil, food products, cold storage and grain silos), Real Estate, Consumer Finance and Defence. The integrated model is well adapted to the infrastructural challenges of the emerging economies.

With expanding global footprints across Australia, Bangladesh, China, Dubai, Indonesia, Myanmar, Singapore and the United States the Group's vision.

Adani Group owes its success and leadership position to its core philosophy of 'Nation Building' and 'Growth with Goodness'. The Group is committed to protecting the environment and improving the life and livelihood of communities

through its CSR programme, based on the principles of sustainability, diversity and shared values.

#### **Group Vision**

To be a world-class leader in businesses that enrich lives and contribute to nations in building infrastructure through sustainable value creation.

#### Growth with Goodness

Scale denotes growth. To us, scale is not just about the businesses we are in. It is also about the influence and the change we can spur, our lives we can touch, the communities we can enrich, the businesses we can propel, and the future we can inspire. We have been able to disseminate this goodness by leveraging the size of our operations in multiple nation-critical sectors. We have consciously extended our scale to help India meet its infrastructure development requirements and ensure improved quality of life.

Our values, 'Courage, Trust and Commitment', enable us to give back to the society by creating sustainable business value.

#### Businesses

Agri Logistics

**B**unkering

Coal & Mining

Defence & Aerospace

Edible Oils & Food

Financial Services

Gas Distribution

Housing Finance

Industrial Land

Logistics

Ports & Terminals

Power Distribution

Power Transmission

Real Estate

Renewable Power Generation

Solar Manufacturing

Thermal Power Generation

#### Approach to Reporting

#### About the Sustainability Performance and Value Creation Report

This Report presents the sustainability performance and value creation story of APL on material topics spanning six capitals — Financial, Manufactured, Natural, Human, Intellectual, and Social & Relationship — with the objective of disclosing the ESG performance of the Company in line with the Integrated Reporting <IR> framework. Global Reporting Initiative (GRI) Standards have been referenced to adopt measurable performance indicators and indexing of contents for disclosures across six capitals. The content of the Report has been guided by the reporting principles for <IR>. This is also our communication on progress in implementing the principles of the United Nations Global Compact (UNGC), International Finance Corporation (IFC) Performance Standards and Sustainable Development Goals (SDGs).

#### Reporting Period

We publish the Report on an annual basis. It covers information for the period from 1st April, 2018 to 31st March, 2019.

For comparative analysis of the sustainability performance, we have showcased performance for a period of minimum three years.

#### Scope and Boundary

The scope of the Report includes - under construction, planned and operational power plants of APL. Our internal aspect boundary includes thermal power plants and the solar plant at Bitta, Gujarat. It also includes its subsidiaries. Adani Power Mundra Ltd.'s plant at Mundra (Gujarat), Adani Power Maharashtra Ltd.'s plant at Tiroda (Maharashtra), Adani Power Rajasthan Ltd.'s plant at Kawai (Rajasthan) and Udupi Power Corporation Ltd.'s plant at Udupi (Karnataka). Corporate office at Ahmedabad (Gujarat) and under construction Thermal Power Plant (TPP) of Adani Power Jarkhand Limited at Godda (Jarkhand). The external aspect boundary includes external impact areas and stakeholders in our value chain, including upstream and downstream value chain partners, business partners, vendors, government agencies and local communities at these locations.

#### Materiality

Material topics are those that are of high concern to the business and stakeholders

and can impact our value drivers, such as operational efficiency, human capital and brand. These topics direct our strategic planning and management priorities towards achieving the end goal of long-term sustainable value for our stakeholders. The Report lists the identified material issues and covers information on them.

#### **Board Responsibility**

Through resolution of the Board of Directors, the responsibility for extrafinancial disclosures has been delegated to the CEO. All strategic and operational responsibilities, including sustainability performance and value creation, are executed by the CEO of APL. For integrity and development of the contents of the report, the Sustainability Reporting Team at all operating locations and at the corporate office, guided by the Chief Sustainability Officer (CSO), has been responsible. The report has been reviewed by the Apex Sustainability Committee, which is a group of functional heads and station heads chaired by the CEO. Key indicators of value creation and sustainability performance are monitored and reviewed by the CEO and the results are deliberated at the Board of Directors (the Board) level on a quarterly basis.

## FY 2018-19

## Highlights

**Financial Capital** 

**Manufactured Capital** 

Social & Relationship Capital





**Intellectual Capital** 

**Natural Capital** 













₹2,63,616 MN

Revenue

₹74,310 MN

**EBITDA** 

₹1,85,905 MN

Market capitalisation

₹77,123 MN

Equity

10,480 MW

(As on 31st March, 2019)

Power generation capacity

58.47 billion units

Power generation

55.33 billion units

Power sales

95.80%

Operational availability

Upcoming projects

2X800 MW Godda Thermal Power Project (TPP) (under construction)

2X800 MW Expansion of Udupi Power Corporation Limited (under planning)

₹124.80 MN

CSR expenditure\*

₹20.70 MN

CSR expenditure directly by Adani Power

>6.50 lakh

CSR beneficiaries

1,378

On-boarded vendors

\* Includes expenditure through Adani Foundation 2,186

Company employees

6,364

Contract workforce

39,328

Employee Safety training man-hours

Lost day rate, excluding fatalities (per million man-hours)

0.00

Company employees

2.99

Contract workforce

**AGILE and DISHA** 

Business process transformation initiatives

E-logbook

at operating power plants

ISO 9001, ISO 14001, OHSAS 18001 and ISO 50001

Certification

0.57 tonne/MWh

Specific coal consumption

0.85 tCO<sub>2</sub>e/MWh

Specific GHG emissions

Specific water consumption (m³/MWh)

9.57

Adani Power Mundra Limited – Seawater

2.29

Adani Power Maharashtra Limited - Freshwater

2.54

Adani Power Rajasthan Limited – Freshwater and Harvested Rainwater

5.51

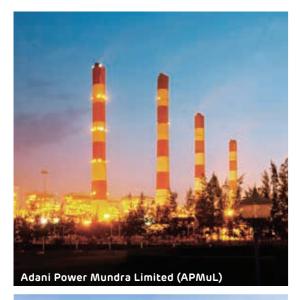
Udupi Power Corporation Limited – Seawater and Rainwater

#### **Company Overview**

## The Right Portfolio

## to a Bright Future

Adani Power Limited (APL), headquartered at Ahmedabad, Gujarat is the largest private sector power producer in India. Beginning its journey in 2006 with a 330 MW unit in Mundra, APL has an installed thermal power generation capacity of 12,450 MW as on 31 October, 2019 with plants in Guiarat, Maharashtra, Karnataka, Rajasthan and Chhattisgarh, The Company also operates a 40 MWp solar power plant in Bitta, Gujarat.



The power sector in India has undergone a challenging period in the past few years, which put to test the resilience of our business model. We have emerged stronger through successful navigation of challenges by adopting the right combination of prudence, persistence and discipline.

We implement the best available technologies and practices that can serve as benchmarks for the power industry. We leverage our experience and the capabilities of our technical and commercial teams to quickly expand our generation capacity, both organically and inorganically.

Our passion to meet the growing energy demand of India and its neighbouring countries and consolidate our leadership in the private power sector will enable us to achieve our goal of 20,000 MW installed capacity (refer to page 4-7 of our Annual Report 2018-19). We establish forward and backward linkages of businesses by collaborating with different Group companies that are engaged in coal mining, coal logistics, ports and electricity transmission, among others.

At APL, we incorporate sustainable practices in everything we do to ensure a B'RIGHT' FUTURE for our stakeholders.



12,450 MW Thermal power generation capacity



40 MWp Solar power plant at Bitta, Gujarat

#### installed capacity of 12,450 MW across Gujarat, Maharashtra, Rajasthan, Karnataka and Chhattisgarh. Additionally, we have several planned projects across Jharkhand, Madhya Pradesh,

As on 31st October, 2019, we had seven power projects with an

power generation capacity.



Operating Power Plants (Outside Reporting Boundary as acquisition completed in FY 2019-20)

- Projects Under Planning
- Projects Under Construction

Integrated Management Systems (IMS) ISO 9001. ISO 14001. OHSAS 18001

**Energy Management Systems** (EnMS)

ISO 50001

5S, 5S-Union of Japanese Scientists and Engineers (JUSE)

#### Gujarat, Rajasthan and Karnataka, comprising 7,000+ MW of Kawai (Rajasthan) APRL Operating Capacity | Planned Expansion 1 320 MW 1,600 MW IMS, EnMS, 5S. 5S-JUSE Godda (Jharkhand) Bitta Solar (Gujarat) Operating Capacity 40 MWp Construction 1,600 MW Mundra (Gujarat) APMuL Operating 4,620 MW IMS, EnMS, 5S, 5S-JUSE Six Sioma Projects Raigarh (Chhatisgarh) Raigarh Energy Generation Ltd. Bhadreswar (Gujarat) • Operating Capacity 600 MW Planned Projects 3,300 MW Raipur (Chhatisgarh) Dahej (Gujarat) Raipur Energen Ltd. Planned Projects 2,640 MW Operating Capacity 1,370 MW Tiroda (Maharashtra) • APML Udupi (Karnataka) Operating Capacity 3,300 MW Operating Capacity | Planned Expansion 1,200 MW 1,600 MW IMS, EnMS, 5S, 5S-JUSE Six Sigma IMS, EnMS, 5S. 5S-JUSE Pench (Madhya Pradesh) •

Note: Map not to scale. For representation purposes only

#### APL's Subsidiaries as on 31st March, 2019



Adani Power Mundra Limited (APMuL)

With 4,620 MW generating capacity at Mundra, Gujarat



Adani Power Maharashtra Limited (APML)

With 3,300 MW generating capacity at Tiroda, Maharashtra



Adani Power Rajasthan Limited (APRL)

With 1,320 MW generating capacity at Kawai, Rajasthan



**Udupi Power Corporation Limited** (UPCL)

With 1,200 MW generating capacity at Udupi, Karnataka



Our Operating and Upcoming Plants

Adani Power Jharkhand Limited (APJL)

Under construction plant of 1,600 MW generation capacity at Godda, Jharkhand

#### **Planned Projects**

• Pench Thermal Energy (MP) Limited (earlier known as Adani Pench Power

Planned projects with 1,320 MW generation capacity at Pench, Madhya Pradesh

**Kutch Power Generation Limited** Planned projects with 3,300 MW generation capacity at Bhadreswar, Gujarat

· Adani Power Dahej Limited Planned projects of 2,640 MW generation capacity at Dahej, Gujarat

· Adani Power Resources Limited

**CEO's Statement** 

## The Right Steps

## to a Bright Future

As India's largest private power producer, we acknowledge our responsibility to achieve sustainable growth and create value for our stakeholders. This Report is a testimony to our efforts in this direction during FY 2018-19 and presents a way forward.



Dear Stakeholders,

We generated 58.47 billion units of power and contributed nearly 16.2% of India's total coal-based generation in the private sector. Critical aspects for APL continue to be better returns to shareholders, fulfilling our obligations under Power Purchase Agreements (PPAs), uninterrupted domestic coal supply, water availability, safety in operations and land acquisition for new projects.

Steady global economic growth, coupled with rapid urbanisation, is likely to continue to propel world energy demand growth. India along with Southeast Asia and other developing Asian nations is estimated to account for two-thirds of global energy demand growth.

In this favourable operating landscape, we are working towards our goal of achieving 20,000 MW capacity by tapping organic as well as inorganic growth opportunities. During FY 2018-19, we initiated due diligence for the acquisitions of GMR Chhattisgarh Energy Limited and Korba West Power Company Limited (KWCPL). Acquisition of these companies were completed recently

and renamed as Raipur Energen Limited and Raigarh Energy Generation Limited.

Increasing concerns about climate change and growing international commitments to contain global warming are expected to result in a major policy shift towards renewable sources of energy and energy efficiency. Although the share of coal-based power generation in India is expected to drop in India's energy mix, we except net capacity additions to maintain the base load in the grid to meet the growing demand. The Indian government has taken several policy initiatives, such as electricity connection to the remotest corners of the nation, agricultural feeder separation, strengthening of rural grids and policy fostering the e-vehicle market, which is expected to further boost the load requirement in grid.

At the same time, demand growth has been somewhat muted due to fewer PPAs being signed by DISCOMs in India, despite the government's initiatives to improve the overall health of the power sector, such as improving domestic coal availability and the performance of DISCOMs. The Ujjwal DISCOM Assurance Yojana (UDAY) to reduce DISCOM losses is critical to translating increased demand into new PPAs. These initiatives are likely to lead to signing of more PPAs in the next 3-4 years, and we are well positioned to leverage this opportunity.

Over the past several years, we have stood at the forefront of this capacity-building effort and delivered four world-class power plants supplying electricity at some of the most competitive rates. Under the Indo-Bangla Friendship Treaty of 2010, we are developing a 1,600 MW thermal power plant at Godda in Jharkhand for supplying power under a long-term PPA to the Bangladesh Power Development Board. Godda TPP will be the first thermal power project in India dedicated to exports.

In FY 2018-19, we received important regulatory approvals, which will contribute significantly to our profitability going forward. The Company's wholly owned subsidiary, Adani Power Mundra Ltd (APMuL) signed supplementary PPAs with the Gujarat Urja Vikas Nigam Limited (GUVNL), pursuant to the adoption of the Gujarat government's High-Power Committee report in December 2018. This allows APMuL to pass through fuel cost for imported coal and increase our tied-in capacity under the two PPAs to 2,434 MW from 2,000 MW earlier. This will stem the under-recovery of high-imported coal prices, and improve capacity utilisation and cash flows of the Mundra plant substantially.

We also received permission from the Maharashtra Electricity Regulatory Commission (MERC) to claim compensation for the usage of alternate coal due to shortfall in domestic coal supply under 'change in law' provisions for our wholly owned subsidiary, Adani Power Maharashtra Ltd. (APML), which operates the 3,300 MW power plant at Tiroda. During FY 2018-19, APML had

#### Our Goal

Achieving 20,000 MW generation capacity

#### Strategic Focus Areas

- 1. Ensuring domestic coal availability for our power plants
- 2. Engaging with regulators in matters of policy reforms
- 3. Engaging with the community proactively
- 4. Ensuring sustainable financing for all projects
- 5. Signing long-term PPAs

raised a total claim of  $\ref{2}$ ,821 crore on the basis of this order, out of which MSEDCL paid  $\ref{1}$ ,400 crore on ad-hoc basis during FY 2018-19.

Our wholly owned subsidiary, Adani Power Rajasthan Limited (APRL), which operates the 1,320 MW power plant at Kawai, also received a similar order from the Rajasthan Electricity Regulatory Commission (RERC). APRL received ₹2,351 crore as part of 50% provisional payment, subsequent to an order passed by the RERC. We expect to receive the balance claims for APML and APRL plants over the next few years, starting FY 2019-20.

Capacity utilisation at our plants in Tiroda and Kawai suffered owing to a shortage in domestic coal, partly due to delays in signing Fuel Supply Agreements (FSAs) under the SHAKTI policy. However, coal supply under the SHAKTI FSAs to both these plants improved substantially in FY 2018-19, allowing Tiroda and Kawai to achieve a PLF of 75% and 66%, respectively, during the review period. The Udupi power plant operated quite satisfactorily in FY 2018-19, and achieved a high level of availability, allowing the plant to recover its capacity charges fully. However, its PLF dipped due to higher generation from must-run status renewable power plants. During FY 2018-19, Udupi achieved billed availability of 92% and PLF of 50%.

In addition to our sustained operational performances and successful resolution of regulatory issues, we successfully tied up more than 95% of our capacity in long-term PPAs, which provides strong revenue visibility. Additionally, domestic coal tie-ups for APL and its subsidiaries increased by 88% over the past two years, with the government focused on increasing fuel security.

In 2015, the Ministry of Environment, Forest and Climate Change (MoEF&CC) notified new emission standards for thermal power plants. Based on the representations of power sectors, the Central Electricity Authority (CEA) clarified that the new emission standards for thermal power plants qualify as 'change in law' for calculating tariffs. The CEA provided a phase-wise timeframe for implementing Flue Gas Desulphurisation (FGD) for all power plants in India, including our Mundra, Tiroda, Kawai and Udupi plants. Accordingly, we have initiated the international commercial bidding for installing new pollution-control devices.

Safety remains a major focus area for us. We have been working with DuPont to achieve 'Zero Harm' through 'Project Chetna'. However, despite our best efforts, there were 0.03 lost time injuries. We are renewing our efforts to eliminate any potential unsafe act and situation. There were no fatalities, and the injury frequency and lost time injury rates came down compared to the previous year.

As thermal power generation is a water-intensive process, we focus on responsible consumption through optimal utilisation and conservation. We have set an internal target of 2.5 m³/MWh of surface water for our hinterland power plants, which is well within the regulatory limit of 3.5 m³/MWh. Although there is no regulatory limit on seawater consumption, we have set an internal target of 9.5 m³/MWh at plants with seawater-based Flue Gas Desulphurisation (FGD) and 6 m³/MWh at plants without seawater-based FGD. During the reporting year, seawater consumption was 9.57 m³/MWh at the Mundra plant and 5.51 m³/MWh at the Udupi plant.

Our people are our strength. We continue to adopt and implement the best people practices. We also revisited our Human Resource (HR) policies and procedures, in line with the changing corporate and people requirements. The average age of our employees is 36 years. This provides us a competitive advantage to cultivate leadership and engage in succession planning to meet our growth plants within the organisation.

We continue to identify and implement various Corporate Social Responsibility (CSR) activities in the core areas of education, sustainable livelihood, community healthcare and rural infrastructure development and partner through the Adani Foundation. Although we did not generate any net profit and hence did not come under the CSR spend mandate, we spent ₹20.70 million towards CSR activities at the operating location of APL.

Further, we recognise the growing concerns around climate change, and are committed to adopting environment-friendly technologies. During the review period, we recorded direct GHG emissions of 0.85 tCO<sub>2</sub>e/MWh, versus 0.83 tCO<sub>2</sub>e/MWh the year earlier. We are developing the Godda project using the ultra-supercritical technology, which will reduce our specific Greenhouse Gas (GHG) footprint, while the Group is working towards increasing renewables in its portfolio mix.

The Indian government's thrust on the effective utilisation of fly ash from thermal power plants, within a 300 km radius, has prompted us to develop infrastructure to handle and utilise fly ash. During FY 2018-19, we recorded fly ash utilisation of 93.2%, up from 87.9% in the year earlier. Recently, we initiated the development of a Fly Ash Utilisation Promotion and Research Park at our Tiroda plant to encourage Research and Development (R&D) in fly ash utilisation.

Our sustainability and value creation journey has been a path of self-discovery and innovation. I express my gratitude to all those who are part of this journey.

Jai Hind!

Vneet S Jaain

**CSO's Statement** 

# Incorporating the Best Sustainable Practices

## Across our Operations

This Report narrates APL's value creation story on material topics spanning six capitals – Financial, Manufactured, Natural, Human, Intellectual, and Social & Relationship – and is guided by reporting principles for the International Integrated Reporting <IR> Framework. GRI Standards have further helped in adopting measurable performance indicators across the six capitals.



Dear Stakeholders,

It is my pleasure to present to you our Sustainability Performance and Value Creation Report 2018-19. The Report covers our subsidiaries, Adani Power Mundra Limited (APMuL), Adani Power Maharashtra Limited (APML), Adani Power Rajasthan Limited (APRL), Udupi Power Corporation Limited (UPCL), Adani Power Jharkhand Limited (APJL), Adani Power Dahej Limited (APDL), Pench Thermal Energy (MP) Limited (formerly Adani Pench Power Limited) and Kutch Power Generation Limited (KPGL). These subsidiaries have their assets at Mundra in Gujarat, Tiroda in Maharashtra, Kawai in Rajasthan, Udupi in Karnataka, Godda in Jharkhand, Dahej in Gujarat, Pench in Madhya Pradesh and Kutch in Gujarat, respectively.

Disclosures in the Report have also been mapped with the UN Global Compact Principles, International Finance Corporation (IFC) Performance Standards on Environmental and Social Sustainability, and Sustainable Development Goals (SDGs).

We revisited our list of material topics based on our regular engagement with stakeholders, the emerging global megatrends and the sustainability context of our business. In the process, we identified critical topics, which are detailed in the Report.

We have set up robust governance and management practices and complying with those is of paramount importance to us. We have implemented an IT-enabled platform for mapping and regularly monitoring the legal compliance of our business.

Data relevant to key performance indicators for plant operations are regularly collated and internally reported for review at different levels at the operating plants and corporate office. Our Enterprise Resource Planning (ERP) system enables us to capture performance parameters on material purchase and consumption, plant operations, employees and workforce, and waste generation and disposal. Data on other material topics, such as emissions, safety statistics, trainings and grievances are captured and aggregated at the site level after due validation. Calculations, assumptions and other relevant non-quantitative disclosures required by topic-specific GRI Standards are also included in the Report.

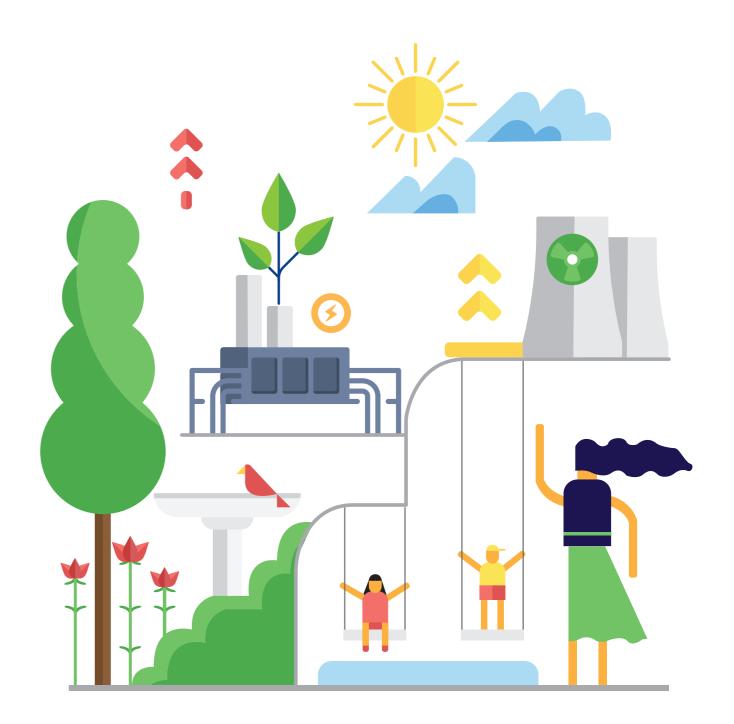
As our business includes coal trading, the financial disclosures of the same are covered in the Annual Report. We have identified GHG emissions related to coal transportation via sea, road, rail and belt conveyer route, which is material for our coal-trading business. This disclosure is covered in the Natural Capital section of this Report. We are further assessing the impacts of our coal-trading business and will report the same, if found material, going forward.

As a policy, we seek external assurance to the disclosures in this Report before releasing it in public domain. We have engaged KPMG (in India) to carry out an independent assurance for this Report based on ISAE 3000 and AA1000AS assurance standards.

We look forward to receiving your feedback to help us improve further. You may write to us at cso.power@adani.com

Yours sincerely,

Santosh Kumar Singh



"We revisited our list of material topics based on our regular engagement with stakeholders, the emerging global megatrends and the sustainability context of our business."

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#### Governance

## The Right Framework

## to a Fortified Future

We believe responsible and transparent governance is key to creating long-term sustainable value for our stakeholders and achieving our strategic objectives. We have established high standards of corporate governance in line with the requirements of the Securities and Exchange Board of India (SEBI) and the Companies Act, 2013, including establishing an independent Board to guide our operations and monitor and drive compliances.

#### **Board of Directors**

#### Mr. Gautam Adani Chairman. Non-executive and

Non-independent Director

#### Mr. Raminder Singh Gujral Independent and Non-executive Director





#### Ms. Nandita Vohra\* Independent and Non-executive Director (till 13th August, 2018)



Committees

★ Audit

#### Mr. Rajesh S Adani Managing Director, Executive and Non-independent Director



#### Mr. Mukesh Shah# Independent and Non-executive Director



#### Mr. Suresh Jain Joint President and CFO



#### ★ Stakeholders' ★ Sustainability and CSR Relationship



Mr. Vneet S Jaain

Ms. Gauri Trivedi®

Non-executive Director

Independent and

**Executive and** 

Whole-time Director and CEO,

Non-independent Director

#### Member

★ Nomination and

Remuneration

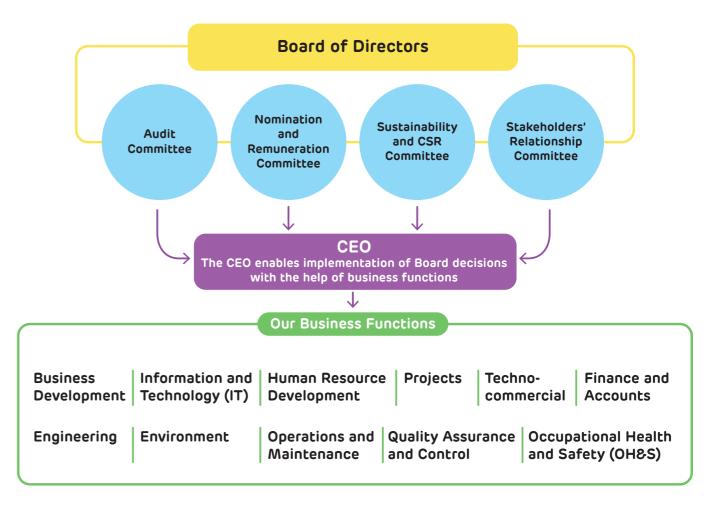
Sc? Chairperson

@Appointed as an Additional Director (Non-executive Independent Director), Member & the Chairperson of Stakeholders' Relationship Committee and Member of Sustainability and CSR Committee w.e.f. 24th October, 2018

\*Ceased to be a director w.e.f. 14th August, 2018 and accordingly also ceased to be a Member of Sustainability & CSR Committee, Member & the Chairperson of Nomination and Remuneration Committee and Member & the Chairperson of Stakeholders' Relationship Committee

\*Appointed as Member of Nomination and Remuneration Committee w.e.f. 19th October, 2018

#### Our Governance Framework



#### Paving the Path for Long-Term Value Creation

At APL, the roles of the Chairman and the CEO are separate. The Chairman is responsible for fostering and promoting the integrity of the Board while nurturing a culture where the Board works harmoniously for the long-term benefit of the Company and its stakeholders. The CEO is responsible for corporate strategy, brand equity, planning and overall management of the Company. He is also responsible for achieving annual and long-term business targets, acquisitions and sustainable development.

M/s. S R B C & Co. LLP (324982E/E300003), Chartered Accountants, appointed as Statutory Auditors of the Company.

- Refer to Corporate Governance Report on pages 69-81 of our Annual Report 2018-19
- For details on our approach to resolving investors' grievances, refer to page 78 of our Annual Report 2018-19

The present constitution of the Board reflects a judicious mix of professionalism, competence and sound knowledge, providing effective leadership to the Company. The Board oversees the functioning of sub-committees for the roles delegated.

As part of a continuous learning philosophy at all levels, the Board members enhance their knowledge and expertise on sustainability topics through business forums, newsletters and learning platforms linked to institutions. Additionally, the CSO is responsible for apprising the Board of the Company's sustainability performance as well as sensitising the members on the current trends related to economic, social and environmental topics.

The organisational policies, purpose, values, mission statement, strategies, goals and targets related to sustainable development are developed by senior management committees based on the identified risks and opportunities related to the power sector, external environment, legal, management system requirements and stakeholder consultation among others. These policies are regularly reviewed and approved by the Board.

The critical concerns from identified stakeholders are captured in our management systems through respective departments and deliberated at the top management level. The CEO regularly monitors the critical concerns and updates the Board on issues that may impact the business ecosystem.

#### Governance

The Right Framework to a Fortified Future

## ?~

#### Policies and Practices for Good Corporate Governance

#### **Grievance Management**

We understand grievance management impacts an organisation's activities and relationships with multiple internal and external stakeholders. We believe a healthy workplace should, therefore, have adequate and effective modes of registering grievances freely. We understand that not all concerns are grievances. A regular problem with something or someone that is not easy to resolve or that can infringe the legal rights of someone or can lead to legal violation is understood as a grievance. Timely resolution of grievances remains our top priority.

We have created a sub-committee, Stakeholders' Relationship Committee, and a platform, 'MyConcern' for employees to register their grievances. For our contract workforce, the department or site heads at project and operating sites act as an interface between the workforce and the top management to resolve their grievances. The HR department also interacts with the contract workforce to ensure that statutory and legal requirements are met. For supply chain-related grievances, the contact of our techno-commercial officials is available in each and every contract document. Grievances of business partners are received by the business development team. Our CSR team acts as an interface between the Company and the community, and any grievance related to the latter is recorded and handled by the CSR team. Besides, there is a dedicated investor relationship team at the Group level for receiving and redressing investors' grievances, which is disclosed in the Annual Report of the Company.

## We have created a sub-committee, Stakeholders' Relationship Committee, and a platform, 'MyConcern' for employees to register their grievances.

As per the requirement of the Sexual Harassment of Women at Workplace (Prevention, Prohibition & Redressal) Act, 2013 and rules made thereunder, we have constituted an Internal Complaints Committee (ICC), which is responsible for redressal of complaints related to sexual harassment. During the year under review, there were no complaints registered pertaining to sexual harassment.



#### Ethics and Integrity

We adopted a Code of Conduct and Ethics (The Code), approved by the Board. The Code is applicable for all members of the Board and Senior Management. The Code is also adopted by the APL business for all its employees. The expected behaviour of contract workforce is governed through general terms and conditions of the contract, communicated along with all contract documents and in-person communications while on the job.

The objective of the Code is to maintain the standards of business conduct of the Company and ensure compliance with applicable laws. The Code lays down standards and values that can enhance the Company's image, set the criteria for business transactions and deter wrongdoing in all business-related activities. The Code expects members of the Board and Senior Management to act in accordance with the highest standards of personal and professional integrity, honesty and ethical conduct\*.

Refer to page 72 of our Annual Report 2018-19 for more details on the Board's compliance.

(The Code of Business Conduct and Ethics (The Code) is available at http://www.adanipower.com/docs/02CodeofConduct)

For seeking advice or clarifications on ethical and lawful behaviour, employees can consult the HR Head or the Audit Committee - Chairman. External advice is sought on ethical and lawful behaviour and matters related to organisational integrity on a case-to-case basis when any such situations arise.

\*All members of the Board are also bound by the requirements for ethics and integrity as per SEBI guidelines. All Independent Directors have provided declarations confirming that they meet the criteria for independence provided in Section 149 (6) of the Companies Act, 2013 and SEBI's Listing Regulations.



#### Whistleblower Mechanism

We have established a mechanism for all stakeholders to report genuine concerns. The objective of this mechanism is to provide a framework for responsible and secure whistleblowing. Protected disclosures can be made under this mechanism in relation to matters concerning the Company and can be utilised in one of the following ways:

- By sending an email to whistleblower@adani.com, with the subject line 'Protected disclosure under the whistleblower policy'
- By sending a letter in a sealed envelope, superscribed as 'Protected disclosure under the whistleblower policy' to the Vigilance and Ethics Officer

During the reporting period, no cases were reported through the whistleblower mechanism.



6

Investor grievances received and resolved in FY 2018-19



#### Anti-corruption Mechanism

Integrity, anti-corruption and work ethics are key constituents of the Group's policies. We adhere to high standards of business, including corporate governance and the law of the land. We, therefore, have zero tolerance towards corruption.

As part of our operational as well as organisational-level risk identification and management process, all our businesses undergo risk assessment, which also includes aspects related to corruption. Due to internal and statutory audits, and formal and informal information to the top management by employees, suppliers and other stakeholders, corruption-related issues seep into the system. There were no reported cases of corruption during FY 2018-19. Suitable actions are initiated in the system whenever any corruption-related case is identified.

Any fine related to regulatory compliance is qualified as significant fine by the Company, irrespective of its amount. During the reporting year, the National Green Tribunal (NGT) vide its order dated 14<sup>th</sup> March, 2019 directed Udupi Power Corporation Limited (UPCL) to pay ₹5 crore as an interim environmental compensation to the Central Pollution Control Board, which was paid by the Company. UPCL is in the process of conducting additional studies and taking measures in line with the NGT order. Besides, the Rajasthan Pollution Control Board forfeited bank guarantee of ₹6 lakh of APRL, Kawai due to unavoidable delay in the installation of a pollution control device in the residential township.

There were no other significant fines and non-monetary sanctions related to non-compliance with applicable financial, environmental and social laws and regulations related to our businesses, including subsidiaries.



#### Compliance and Internal Controls

As a responsible corporate, we have internal controls and are committed to ensuring compliance with applicable laws and regulations. Initiated as part of our business process transformation exercise, Management Audit & Assurance Services (MAAS) is a centralised function with direct administrative reporting to the Chairman of the Board.

The role of MAAS includes internal audit and control and reporting to the Audit Committee of the Board. To achieve the objectives of internal control, IT-enabled platforms have been implemented for mapping compliance requirements and status, and ensuring time-to-time internal and external audits at all our business locations, which enables us to maintain compliance.

The CEO is responsible for ensuring compliances in the business and the Company Secretary is the Compliance Officer of the Company as per the requirements of SEBI's Listing Regulations. The compliance requirements are delegated to the respective heads of department to ensure each function remains in compliance with the applicable requirements. Standard Operating Procedures (SOPs) of internal audits and Delegation of Authority (DOA) for controlling important functions of the Company have been developed. Compliance reports are presented to the Board of Directors by MAAS periodically for review.

As part of the implementation process of the management systems, our compliance with Environment, Health and Safety (EHS) and quality standards is audited regularly. All Mergers and Acquisitions (M&A) and significant contracts are subjected to due diligence and assessment of existing and potential risks related to human rights, environment and labour practices, through an internal team and independent third parties. During FY 2018-19, there was no M&A. However, the acquisition of Raipur Energen Limited (formerly GMR Chhattisgarh Energy Limited) and Korba West Power Company Limited (KWPCL) was in process, which was completed in FY 2019-20.

To ensure compliance in our supply chain, we follow a Vendor Relationship Management (VRM) system, which involves collaborative working and relationship building with vendors to meet business objectives. Our supplier on-boarding process and regular evaluation after on-boarding covers environmental and social parameters, including human rights issues.

Our techno-commercial team incorporates the necessary changes as per the best industry practices in the vendor-assessment process as and when required.

A legal compliance review of all operating locations and projects is done in a systematic manner. Our internal legal team consults top legal experts in all significant matters and assesses the risk and merit of each case. The legal head of the Company submits the disclosure on legal compliance to the Board-level committee. Environmental due diligence and assessment of risks are also done for the projects that we consider for acquisition. We are of the view that any other legal case filed against us during the reporting year under other laws of the land in which the Company was made a respondent, and which was sub-judice does not pose any material risk to our business.

#### Strong IT Controls

To achieve the objectives of internal control, IT-enabled platforms have been implemented.

#### Regular EHS Audits

As part of the implementation process of the management systems, our compliance with EHS and quality standards are audited regularly.

#### **Risks and Opportunities**

## The Right Measures

## to De-Risk Growth

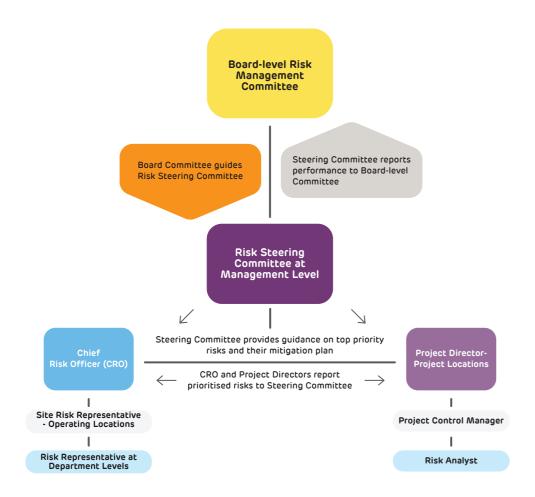
Non-financial risks are increasingly becoming more visible to various stakeholders, such as investors, lenders and regulators. We constantly identify our risks and opportunities to ensure our business strategy is aligned with the internal and external environment. We have developed procedures for risk identification and mitigation and established risk management systems under AGILE and DISHA, which are our business process transformation programmes.

The process of risk identification is collectively performed by a cross-functional taskforce, which includes the risk analyst, project engineering manager, project procurement manager, project control manager, project contract administrator, construction manager, commissioning manager, Operations and Maintenance (O&M) manager, Health, Safety and Environment (HSE) manager, quality manager and land acquisition manager, with support from the heads of the businesses.

All identified risks are validated and prioritised to finalise a risk mitigation and control plan, which is monitored on a regular basis. The risks and mitigation strategies are discussed in the top Management Committees and are later presented to the Board.

We constantly leverage opportunities and minimise risks by improving project execution proficiency and operational efficiency. We build our business strategies based on identified risks and opportunities to meet the needs of diverse stakeholders and remain competitive.

#### Risk Governance Structure



We have identified the following risks, the impacted capitals and the processes to manage the risks.

#### Risk and Mitigation Measures

Identified Risks	Capitals Impacted	Organisational Process to Manage the Risk
Availability of quality coal	<u>#</u>	Fuel management
Forex fluctuations	₹.	Financial management
Dynamic regulatory environment	₹\$ - 4	Business development & risk management
Disruptive technology	₹\$ ₩	Risk management
Availability of HR	<u> </u>	SYNERGY (HR management process)
Delay in environmental clearance	₩ 🔐	Project management
Delay in land acquisition and forest clearance	₹\$ ₩	Project management
Social activism	₹} &	Stakeholder relationship and corporate communication
Human rights in supply chain	₹ 🚣 🕹	Procurement
Credit risk and timely financial closures	₹.	Financial management
Account receivables	₹\$	Financial management
Climate change concerns	<b>*</b>	Environment management & risk mitigation

#### Capitalising on Inorganic Growth Opportunities

Identified Opportunities	Capitals Impacted	Organisational Process to Leverage the Opportunity
Electricity demand in neighbouring countries	<b>₹</b>	Business Development
Growth of renewables due to regulations for power generators	<b>₹ ≜ </b>	Business Development
Energy demand due to improved living standard	₹	Business Development
Power demand for electric mobility in future	<b>₹</b>	Business Development
Base electricity load and proportion of coal in fuel mix in India	<b>₹</b>	Business Development

#### Capitals













#### Stakeholder Engagement

## The Right Partnerships

## to Continued Prosperity

We engage with stakeholders regularly through various media platforms to understand their expectations and use their inputs in identifying critical business issues and decision-making. We have identified stakeholder groups relevant to our business, based on the position they hold in the upstream and downstream processes as well as their partnerships in the internal and external environment. We strive to maintain the highest standards of integrity in dealing with our stakeholders.

For each stakeholder group, our engagement method, their key concerns, our response to those concerns and the frequency of our engagement with them vary.

#### Engagement Key Frequency Methods Concerns Response of Engagement **Employees** Direct interaction, Work environment, Initiatives to improve Regular health and safety, work environment, safety feedback, (daily and ongoing) questionnaire, energy efficiency management systems, newsletter, and talent energy-efficiency magazines, management initiatives, and employee emails, employee training and development

## Contractual Workforce



Open forum and one-to-one interaction

engagement

surveys

and events

Work environment, health and safety, training and skill development, and grievance handling Initiatives to improve work environment, safety trainings and promotional events, and a grievance redressal mechanism Regular (daily and ongoing)

#### Local Communities



Direct interaction with project beneficiaries and community-based organisations, and interviews with local community representatives

Water availability, local employment, school education, community healthcare facilities and vocational skill development Infrastructure and sanitation-related projects, local hiring where possible, woman empowerment programmes, education programmes, including adoption of government schools, computer literacy and teacher orientation, community health programmes, mobile healthcare units and livelihood generation

Regular (daily and ongoing)

#### Engagement Methods

#### Key Concerns

#### Our Response

## Frequency of Engagement

#### Government/ Regulatory Bodies



Direct interaction on a case-to-case basis, policy advocacy through industry bodies, response to information sought, routine filing of reports, and regulatory audits and inspections

Compliance, revenue and taxes, and community development Compliance monitoring and management, payment of statutory levies, submission of reports and other related information, and CSR initiatives Regular and need

#### **Investors**



Investor meets, Annual General Meetings (AGMs), meetings with bankers and other financial institutions, and periodic declaration of results The Company's sustainability performance, growth opportunities and debt servicing

Prudent financial management system and reporting

Quarterly basis and need based

#### Customers



Direct
communication
with existing and
new customers
through various
media and binding
agreements,
including PPAs,
through power
exchanges

Plant availability, transmission availability, forced outages and reconciliation of accounts and settlements, including 'change in law' Power generation planning and scheduling, timely and proactive communication on reconciliation and settlements, responses to queries and proactive settlements

Regular (daily and ongoing)

#### Media and NGOs



Telephonic interviews, in-person interviews and interaction with regulatory authorities Local community
development,
health and safety,
legal compliances,
environment
protection and ash
management

Investment in education infrastructure, integration of management systems, including environmental, energy and OH&S, best available technology implementation, compliance with applicable regulations and initiatives for improvement in ash utilisation

Issue based

#### Vendors (Suppliers and Contractors)



On-boarding process, site visits to manufacturing facilities for compliance monitoring and regular one-on-one interactions for compliance monitoring

Timelines for payments

Payment cycle changed from two days in a week to daily and implementation of IT-enabled payment systems Regular

#### **Materiality Assessment**

## **Defining and Prioritising**

## Material Issues

Material topics are those that are of high concern to the business and stakeholders and can impact our value drivers, such as operational efficiency, human capital and brand. These topics direct our strategic planning and management priorities towards achieving the end goal of long-term sustainable value for our stakeholders.

We have adopted a structured approach to identify and prioritise material topics.

The material topics have been shortlisted and prioritised after being deliberated upon at the Sustainability Reporting team meetings. Material topics of the Company are reviewed by the Apex Committee for the Sustainability Performance and Value Creation Report before releasing it into the public domain.

We have undertaken materiality analysis to identify specific issues in the short-, medium- and long-term strategic areas as well as site-specific operational challenges. These issues have significant 4. Emerging global megatrends and sector standards by GRI and impact on the Company's business performance and influence the decisions of our stakeholders.

#### INPUTS FOR IDENTIFICATION OF MATERIAL TOPICS

- 1. Company internal policies, news and reports in the
- 2. Business risks identified through risk management framework in the Company and inputs from functional representatives based on ongoing engagement with stakeholders
- 3. Material topics identified in peers' reports in the sector
- other agencies

#### List of Material Topics with Boundary Classification on Basis of Priority

Material Topics	Capitals Impacted	Topic B External	oundary Internal
Economic Performance (including PPA and sales)	₹		E C
Land Availability	<b>₹ ₩</b>		
Fuel Management (coal and oil)	₹ 4:	C	© SU
Water Management	₹	C	<u>co</u> s
Compliance (environment, labour, human rights, project related, etc.)	₹ 4 1 5	6 0 0 0	
Occupational Health and Safety (OH&S)	<u>&amp;</u>	C	CO SU
Plant Efficiency [PLF, availability, Station Heat Rate (SHR) and aux power]	₹ 4:	C	E C
Industrial Relations	₹.		CO SU
Business Continuity (emergency preparedness, Disaster Management (DM) and asset security)	₹.	6 0	CO SU

Material Topics	Capitals Impacted	Topic Bour External	ndary Internal
Supply Chain Management [procurement practices, supply chain assessment (environment, labour, human rights and society), including contract management (O&M and projects)]	<b>₹ ★</b>	G V	
Anti-corruption	Æ		CO SU
O&M and Project Materials – Input (associated chemicals, limestone for FGD, spares, paints, other consumables, plant machinery and construction materials)	<b>≜≗</b>		© SU
Community Engagement and Development (indirect economic impact)	₹.		CO SU
Waste Management (ash, gypsum, hazardous and non-hazardous waste)	<b>₹</b>	C V	<u>©</u> (S)
Emissions (air and GHG)		C	© (S)
Competent Manpower	<u> </u>		CO SU
Modernisation, Innovation and Resource Optimisation	<u>~</u> 0		© (S)
Employment	Å.	6	CO SU
Biodiversity		0	
Grievance (environment, human rights, supply chain, contract labour, employees, community, etc.)	₹ 4 4	000	E C
Human Rights – forced labour, child labour and working conditions	₩ 4 5		© SU
Indigenous Rights	₹ 4	(C)	
Security Practices	<b>₹</b> 5		CO SU
Cultural Heritage	₹ 4	6 0	
	Kuman Intellectual Nai	Internal factors  CO Company  Cural SU Subsidiaries	Miscellaneous Subsidiaries (including solar) Subsidiaries (excluding solar)

S Shareholders IC Indigenous

External factors

G Government C Communities C Customers

(excluding solar)

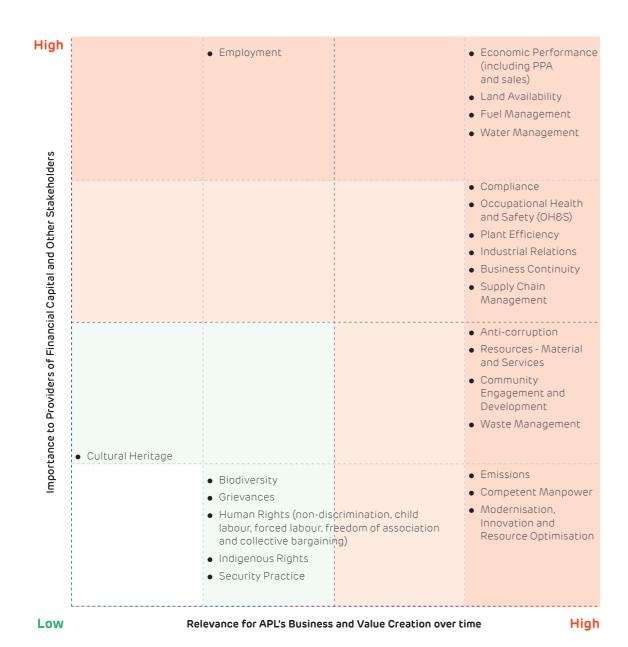
Contract Workforce

Defining and Prioritising Material Issues

#### Material Issues and Impacted Capitals

The material issues are prioritised based on their importance to the providers of capital and stakeholders, and their relevance to APL's business and value-creation over time.

#### **Materiality Matrix**



Note: The material issues are listed and numbered as per priority.

**Operating Context** 

## The RIGHT Path to

## Stability and Reliability

We work in a complex and dynamic external environment. Our primary business is to generate power and supply to DISCOMs and bulk customers under PPAs, which contain conditions, including normative availability to recover full fixed charges. During peak power demand, a few short-term open-access customers also come on board. Our business is regulated by the State Electricity Regulatory Commissions (SERCs) and the Central Electricity Regulatory Commission (CERC).

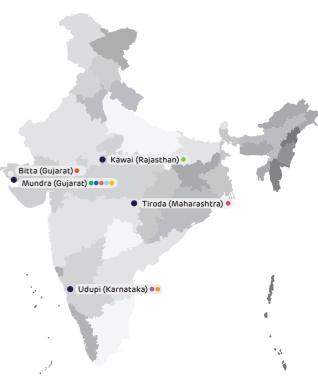
Generation and supply of power is required to be done as per the guidelines of State Load Dispatch Centres (SLDCs) and Regional Load Dispatch Centres (RLDCs).

We always try to supply power to all our customers beyond the normative availability under PPAs, thereby proving to be a reliable source of power. We do not engage in retail distribution. We have signed PPAs mainly with long-term and medium-term customers.

#### **Tied-up Capacity by PPA**

Procurer	Contracted Capacity (in MW)	Туре
• Gujarat Urja Vikas Nigam Limited (GUVNL)	2,000	Long term
Haryana Power Purchase Centre (HPPC) – HVPNL	1,424	Long term
<ul> <li>Mundra Utilities Private Limited (MUPL)</li> </ul>	40	Long term
<ul> <li>Railway Energy Management Company Limited (REMCL)</li> </ul>	50	Medium term
• GUVNL	40	Long term
Maharashtra State Electricity     Distribution Company Limited (MSEDCL)	3,085	Long term
• Rajasthan Discoms Power Procurement Centre (RDPPC)	1,200	Long term
• MUPL (Mundra)	10	Long term
• Power Corporation of Karnataka Limited (PCKL)	1,080	Long term

## Supply Locations



#### Note: Map not to scale. For representation purposes only

## Growth Opportunities in the Power Sector

The steady global economic growth, coupled with rapid urbanisation, is likely to continue to propel world energy demand growth, with India expected to be the largest constituent. In fact, India along with Southeast Asia and other developing Asian nations is estimated to account for two-thirds of global energy demand growth.

## Regulatory Developments and Government Reforms

Regulatory developments, such as improving domestic coal availability and the Ujjwal DISCOM Assurance Yojana (UDAY) to reduce DISCOM losses is critical to translating increased demand into new PPAs. The Indian government has taken several policy initiatives, such as electricity connection to the remotest corners of the nation, agricultural feeder separation, strengthening of rural grids and policy fostering the e-vehicle market.

#### **Business Model**

Inputs **Business Processes Outputs** Value Impacted

#### **Financial Capital**

₹8.845.4 million ₹4.79.173 million Equity (March 2018) Debt (March 2018)

#### **Manufactured Capital**

#### 10,440 MW

Thermal Generating Capacity 40 MWp

Solar Generating Capacity

96,856 MT

Material Consumption

#### **2.5 MMTPA**

Coal mining approvals at Jitapur (Capacity)

**21.3 MMTPA** 

Long-term fuel linkage

## Social & Relationship Capital

#### 4.958

Vendors 10,625 MW

PPA with customers

Applicable regulatory clearances

for all power plants

#### Social licence to operate

CSR Partner

Adani Foundation and existing community

for all power plants

around us

#### **Natural Capital**

**Ecosystem** Services

0.57 tonne/MWh

Coal

Water Withdrawal

9.57 m<sup>3</sup>/MWh

Mundra

2.29 m3/MWh

Tiroda

#### 2.54 m<sup>3</sup>/MWh Kawai

5.51 m<sup>3</sup>/MWh

Uduni

Additional land for new project at Godda and

Udupi

#### **Human Capital**

#### 2,186

22

Employees 6,364

Contract Workforce

#### 36.21 years

Average age of Manpower

#### Intellectual Capital

- AGILE, DISHA and **SYNERGY**
- Managment Systems

System and Energy Management System

Man-Megawatt ratio

- Business Processes

**Integrated Management** 

of employees

• Projects and operations IT-enabled

• Employee accessibility to

E-learning platforms

#### **Business Activities**

- Power Generation and Sales
- Coal Trading
- Other Financial Investments
- Asset Creation

### Business Activities

#### Vision

To be a world-class leader in businesses that enrich lives and contribute to nations in building infrastructure through sustainable value creation

2m2in6n3

#### Supporting Mechanisms

- Governance and Risk Management
- Risk and Opportunities
- Performance
- Strategy and Resource Allocation Outlook
- Refer to pages 10-15 of this Report for more details

#### **Operating Context**

Refer to page 21 of this Report for more details

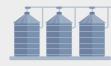
95.8%

**Operational Availability** 



58.465 MUs

Power Generated



6.54 MMT

Fly Ash Generated



5,820 MT

Waste Generated

Investors

**pages** 60-68



#### **New Assets**

Created at Godda and Udupi

#### ₹77,123 million

Equity 0 ₹3.71.437 million

Debt 😑

₹2,63,616 million Revenue 🕀

#### ₹1.85.905 million

₹74.310 million

EBITDA 🕀

#### Market Capitalisation 🕀

Market Credibility

#### ₹(9,921) million

Profit (Loss)

#### 55,329

MUs supplied to grid for end consumers. Generated business for downstream value chain partners, especially for DISCOMs and transmission providers. •

#### 6.336

Vendor Base 🕀

10.425 MW

operate 🕀 for all power plants

Social licence to

0.16

CSR programmes 0

93.2%

so on) 🙃

Specific PM Emission Ash Utilisation

#### (kg/MWh)

38.5%

Lost Day Rate

Company Employees 👄

Contractual Workforce

Diversity of workforce

Water Recycled 🕀

Fatalities 😑

Lost time Injury Rate

0 Company Employees •

## Contractual Workforce

 Integration and improvement of management systems ISO 14001, OHSAS

18001, ISO 9001

 Energy management systems ISO 50001

Customers

**pages** 60-68

 Business process transformation

**AGILE** for Projects **0** DISHA for O&M 0 **SYNERGY** for HR, IT

E-logbook for O&M 👴

category workbook

Community

**pages 32-41** 

28.33%

Foreign shareholding in the business 🕀

Infrastrcture Development

Rainwater harvested (m<sup>3</sup>)

**22,29,599** (sufficient for

genration of 892 MUs) •

(roads, healthcare and

₹2.45.866 million •

PPA with consumers •

Brand Image 🕀

6+ lakh Beneficiaries out of

Economic Value Distributed

#### 3.30

1.23

Specific SO<sub>x</sub> Emission (kg/MWh) ⊕

Specific NO<sub>v</sub> Emission (kg/MWh) ⊕

#### 0

0.03

39,328 hours Training man-hours 🕀

2.99

through

and F&A 🐽

Organisational Capacity • Employee Attrition •

Employees skills and

competency 0

## Customised

**ERP** system Learnings from

Six Sigma projects

• Techno-commercial avenues supported by

> **Employees and** Investors. Customers Contractual Workforce

**pages 36-41** 

and Vendors pages 60-68

Positive Trendina

Value generated

for stakeholders





Community,

Customers and

💻 pages 93-105

Vendors,

Regulators

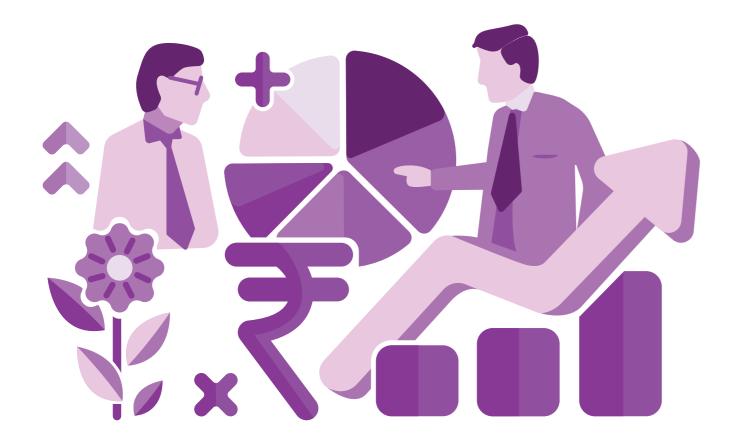
Annual Report

Value Creation Report

#### **Financial Capital**

## The Right Allocation to

Maximise Economic Value



India's economic growth is powered by government initiatives and supported equally by the private sector, which commits to large investments. We consider our growth to be a testament to nation-building as we operate several power generation assets that cater to the power requirements of the country.

Consequently, we consider economic stability as paramount to our operations. We pursue a prudent growth strategy focused on delivering returns to our shareholders and lenders while ensuring sustainability of our business partners, such as vendors and suppliers.

FY 2018-19 Highlights

₹2,63,616 MN

>85%

Total Revenue

Net capacity tied-up under long-term PPAs



#### Financial Management and Control

We have prepared our financial statements in accordance with Indian Accounting Standards (Ind-AS). We have also developed internal financial control frameworks. As part of this, we have prepared and reviewed the entity level controls, process level controls and generic controls within the Company. The internal and external auditors of the Company issue their reports to the management on internal controls in addition to the financial reporting based on audits.

#### **Our Performance**

#### Organisational Scale

Particulars	FY 2016-17	FY 2017-18	FY 2018-19
Market Capitalisation (in ₹ million)	1,54,085	91,602	1,85,905
Total Revenue (in ₹ million)	2,30,345	2,10,934	2,63,616
External Debt (in ₹ million)	5,24,844	4,79,173	3,71,437
Total Equity (in ₹ million)	29,996	8,845	77,123
Consolidated Net Profit (in ₹ million)	(61,701)	(19,972)	(9,921)
Employees	2,648	2,350	2,186
Contract Workforce	7,069	6,869	6,364
Power Generation (in million units)	64,172	50,824	58,465

## Creating Opportunities for Generating Economic Value

We have been supplying power to various state DISCOMs as well as to small and large industries. Power is supplied to our customers under long-term, medium-term, and short-term contracts. We also supply power to the Indian Energy Exchange (IEX) and the short-term bilateral market. We have no direct residential customers. Our growth continues to be inclusive of employees and communities and generates direct and indirect economic benefits.

#### **Economic Performance**

(₹ in million)

Particulars	FY 2016-17	FY 2017-18	FY 2018-19
Economic Value Generated (A)	2,32,028	2,10,934	2,63,616
Revenue from Operations	2,27,838	2,06,110	2,38,842
Other Income	4,190	4,824	24,774
Economic Value Distributed (B)	2,27,139	2,06,110	2,45,866
Fuel Cost	1,46,236	1,25,484	1,59,492
Purchase of Stock-in-Trade	2,157	3,093	8,099
Other Expenses (including Community Investment)	15,712	17,084	18,078
Employee Wages and Benefits	4,017	3,537	3,632
Finance Costs	59,017	55,702	56,565
Economic Value Retained (A-B)	4,889	1,264	17,750

#### **Financial Capital**

The Right Allocation to Maximise Economic Value

For FY 2018-19, consolidated total income stood at ₹2,63,616 million compared to ₹2,10,934 million in FY 2017-18. Consolidated EBITDA for the year stood at ₹74,310 million as compared to ₹61,900 million in FY 2017-18.

Volumes of electricity transacted in the short-term bilateral market and power exchanges increased considerably in the past two years due to the commissioning of new merchant capacities. We have strategically tied up more than 85% of our net capacity to long-term Power Purchase Agreements (PPA). Envisaging short-term market trends, we have contracted around half of the available merchant capacity under medium-term PPAs of 3-5 years.

We are actively pursuing cross-border opportunities for either supply of power from India or the setup of generation projects in neighbouring countries. The first such project is envisaged in Godda, Jharkhand with a capacity of 1,600 MW to supply power to Bangladesh under a firm PPA. Land acquisition for this project has started and project construction is in progress. Going ahead, it is imperative for short-term markets to play a larger and more important role. Hence, as the short-term and power exchange market matures, we are keeping a close watch on regulations and guidelines issued from time to time and are active in shaping this emerging market in India. The Group recognised government grant (net) of ₹57,035.9 million until 31st March, 2019.





#### Demerger of Mundra plant

Our Mundra power plant was incurring operational losses due to increase in imported coal prices and the earlier PPA didn't allow sanctioning of higher fuel prices as compensatory tariffs. During the previous reporting year, assets and liabilities of the Mundra plant of Adani Power Limited was demerged to Adani Power Mundra Ltd (APMuL). Pursuant to the adoption of the High Power Committee's report by the Gujarat Government, in December 2018, APMuL signed supplementary PPAs with the Gujarat Urja Vikas Nigam Limited (GUVNL). This development allowed APMuL to pass through increased fuel costs associated with the imported coal and expand its capacity under the two PPAs to 2,434 MW from the original 2,000 MW. This will help us stem the underrecovery of high imported coal prices under the new PPAs and improve capacity utilisation as well as cash flows of the Mundra plant substantially.

APMuL signed supplementary PPAs with the Gujarat Urja Vikas Nigam Limited (GUVNL). This development allowed APMuL to pass through increased fuel costs associated with imported coal and expand its capacity to 2,434 MW from the original 2,000 MW.

#### New plants and Upcoming Projects

We are committed to reaching our goal of achieving thermal power generation capacity of 20,000 MW to bridge the power deficit in India, in line with the revised tariff policy and the Government of India's vision of 24X7 power to all by 2022. With consolidation taking place in the Indian power sector, we see opportunities to add capacity through the mergers and acquisitions (M&A) route. We plan to finance our expansion plans through a healthy mix of debt and equity. For the debt portion, we expect to tie up a mix of Rupee Term Loans and External Commercial Borrowings (ECBs), as we have done for our existing plants.

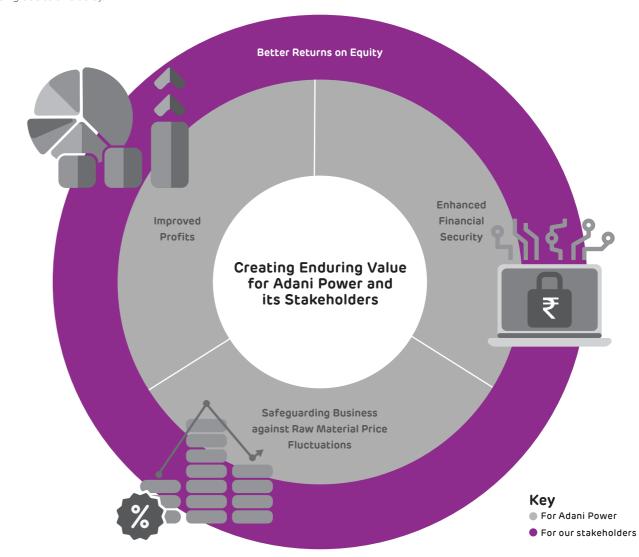
#### Challenges of Jitpur Coal Block

During FY 2018-19, we completed the process of obtaining Forest Clearance from the Ministry of Environment, Forests and Climate Change, within the mining block of Jitpur coal block. Although we are facing challenges related to land acquisition in the mining area, we are working with stakeholders to resolve the issues and expedite the acquisition process being done by the Government of Jharkhand. Commercial production from this mine may get delayed by two years from the pre-scheduled date of February 2019. However, we do not foresee any significant financial liability arising due to this delay.

## Exploring Organic and Inorganic Growth Opportunities

We continue to identify power deficit zones in the country and move swiftly to cover these regions with our state-of-theart plants. With these plants, we aim to generate power and transmit it through high-voltage transmission infrastructure developed either by our Group company, Adani Transmission Limited or by state transmission companies. We are also exploring acquiring stressed assets identified by the Central Electricity Authority (CEA).

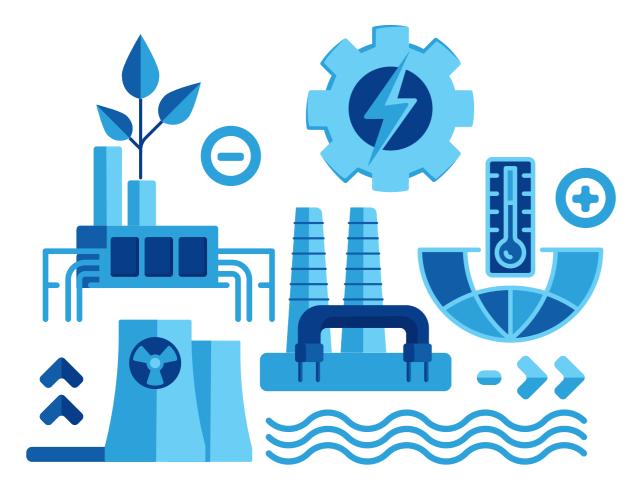
We aim to generate power and transmit it through high-voltage transmission infrastructure developed either by our Group company, Adani Transmission Limited or by state transmission companies.



#### **Manufactured Capital**

## The Right Approach to

## Achieve Excellence



With an aim to support India's growing economy and its energy demand, we have built a significantly large portfolio of thermal power generation assets. Our Mundra power plant is the world's thirteenth largest single-location thermal power plant with an installed capacity of 4,620 MW.

We also strive to focus on deploying the best available technology to minimise the environmental impact of coal-fired plants and improve efficiency. Our Mundra plant has the distinction of being the first power plant in operation based on supercritical technology, which now accounts for 75% of our operations and will increase further when the projects under development come on stream.

We ensure that we achieve operational excellence through the use of established management systems, excellence frameworks and constantly bringing about process improvements.

FY 2018-19 Highlights

62.34%
Plant Load Factor

(PLF)

55,329 MUs

95.80%

**Electricity Sold** 

**Operational Availability** 

#### **Our Operational Manufacturing Assets**

Plant	APMuL	APML	APRL	UPCL	Bitta Solar
Installed Capacity (in MW)	4,620	3,300	1,320	1,200	40
Power generated during the year (in million units)	23,912	21,666	7,599	5,124	75.1
Power sold during the year (in million units)	21,886	21,141	7,343	4,884	75.1
PLF (%)	59.08	74.95	65.72	49.60	-
Water Allocation (MCM)	Seawater	70 MCM/Year from river Wainganga	35 MCM/ Year from river Parvan	Seawater	-
Coal Availability	Units 1-6 via imported coal 6.405 MMTPA via Fuel Supply Agreement (FSA) from Mahanadi Coalfields Limited (MCL)	4.91 MMTPA (FSA from SECL) 5.85 MMTPA (SHAKTI scheme allocation)	4.12 MMTPA (SHAKTI scheme allocation)	Imported coal form open market	-

#### Improving Plant Load Factor

PLF in FY 2018-19 improved to 62.3% from 55% in FY 2017-18. Units sold increased to 55,329 MUs from 48,005 MUs.

#### The RIGHT Processes

#### **Quality Assurance**

The Company's quality assurance ensures end-to-end business aspects from pre-bid to project operation and maintenance phase. Apart from full-fledged team possessing domain knowledge and experience, the Company engages external experts and certified agencies for carrying out inspection and audits on quality assurance.

#### Simulation

At Mundra, Tiroda and Kawai, we have power plant operation simulator centres. Here, our desk engineer and shift in-charge can simulate various processes that enhance desk operators' skill sets as well as optimise the operational practices. These simulator centres are a replica of real-time desk operations where all the processes can be tuned to the expected results.

#### Drone-based Measurement

At our thermal power stations, we have initiated drone-based real-time monitoring of chimney painting. We are also using drone-based photogrammetry techniques for coal stock volume measurement, which accelerate the measurement process and enhance the accuracy level.

#### **NABL Accredited Labs**

Laboratories at all our power plants have been accredited by the National Accreditation Board for Testing and Calibration Laboratories (NABL) for air and water quality monitoring.

#### **Power Generation Efficiency and Sales**

We believe operational efficiency is intricately linked with design. We thus engage various experts from design stage to help us select and implement the technologies that operate with the lowest cost during the plant lifecycle. We have progressively taken up various projects in the operational plants and service key equipment to maintain and improve plant efficiency.

For FY 2018-19, our consolidated plant availability was 95.8%, up from 90.9% in FY 2017-18. This was mainly attributable to Mundra and Udupi plants' improvement in availability by 1.2% and 21.9%, respectively, from the year earlier.

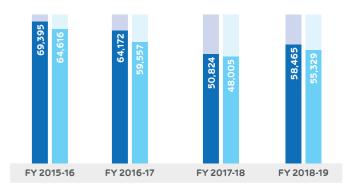
Sale of power under the PPA between APMuL and Haryana is metered at Haryana periphery and transmission losses for this is accounted in the head of APMuL, which was 3.55% during the year. Sale of power under other PPAs are metered at the periphery of the power plant hence, transmission losses are out of the scope of APL.

#### Fuel Management

Our power generating stations are predominantly dependent on coal as a source of primary fuel. Heavy Fuel Oil (HFO) and Light Diesel Oil (LDO) are used in limited quantities during the start-up of the boilers. Since these are conventional, non-renewable sources of energy, their availability is increasingly becoming constrained. Ensuring fuel security for our operations is material for us to sustain our operations and ensure availability and reliability of power supply. To ensure fuel security, we rely on our Group company, Adani Enterprises Limited, for imported coal for our operations. Adani Enterprises Limited, which is one of the largest coal traders in India, owns mines in Indonesia and has linkages to import it from the US, Australia and Russia.

#### Power Generation and Sales (million units)

• Power Generation • Power Sales



#### **Manufactured Capital**

The Right Approach To Achieve Excellence

Through competitive bidding, the Jitpur coal block of 2.5 MMTPA was allotted to APL, which will further secure domestic coal availability. Although we are facing challenges related to land acquisition in the mining area, we are working with the stakeholders to resolve the issues and expedite the acquisition process of the Government of Jharkhand. Commercial production from this mine may get delayed by two years from the pre-scheduled date of February, 2019. However, we do not foresee any significant financial liability arising due to this delay.

Our coal logistics involves transportation of imported and domestic coal from mine to plant with a combination of rail and sea-based routes. We took a call to primarily use railways for coal transportation to our hinterland plants. This will also help us optimise our emissions and impact on the local community. To reduce the time taken to deliver coal from ports to coastal plants, we implemented closed conveyor systems at Mundra.

#### **Resource Conservation Initiatives**

We carried out a number of initiatives to conserve our key natural resources, such as energy, water and coal.

- Rainwater harvesting of 2.23 million m³ within our power plants
- Energy-saving initiatives lowered consumption by 1.77 million GJ across operational plants

Please refer to Page 46-51 for more details on the interlinked Natural Capital outcomes of our manufacturing process.

#### **Our Performance**

Our operations consumed 537.85 million GJ of energy in FY 2018-19 as compared to 464.62 million GJ in FY 2017-18 in the form of primary fuels, such as coal, HFO and LDO used in boilers and High-speed Diesel (HSD) used in vehicles and machinery. In the event of power outage or shutdown activities, we also purchase electricity from the grid. However, during the reporting year, we did not purchase any electricity from the grid. Our total auxiliary power consumption was 11.30 million GJ as compared to 13.00 million GJ in FY 2017-18.

This Report does not include energy consumption for activities in the upstream and downstream operations. However, specific GHG emissions from upstream coal transportation are being monitored. Our operations do not involve the use of any recycled input materials.

The main reasons for change in energy intensity at Mundra compared with the last financial year includes operational issues, such as ageing of the turbine. External factors, such as reduced demand and shortage of quality coal also contributed to this change.

## Our total auxiliary power consumption was 11.30 million GJ as compared to 13.00 million GJ in FY 2017-18.

Outage of power, in most cases, is governed by the directives received from the individual Load Dispatch Centres. However, we undergo some unplanned outages as well. During the reporting year, there were 76 outages, of which 52 were forced outages. We communicate these outages to our customers in a timely manner.

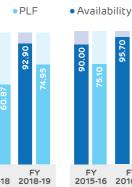
## Power Outage Frequency and Average Power Outage Duration

System Average Values	FY 2016-17	FY 2017-18	FY 2018-19
Interruption frequency index for planned outage (outage/customer)	1.08	0.34	7.00
Interruption frequency index (including forced outages) (outage/ customer)	2.45	2.23	25.30
Interruption duration index (excluding forced outages) (hours)	451	123	10,550
Interruption duration index (including forced outages) (hours)	701	772	11,715

Kawai - Availability and PLF (%)

#### Mundra – Availability and PLF (%) Tiroda – Availability and PLF (%)

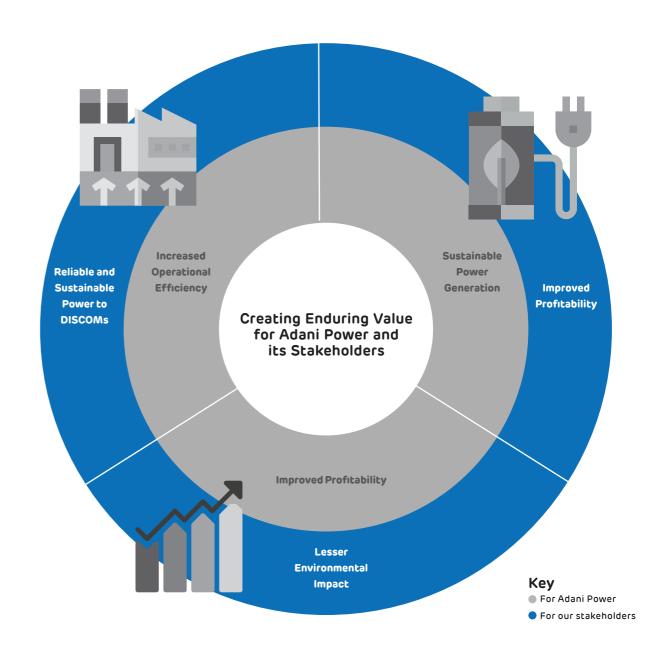






Udupi - Availability and PLF (%)

# Consolidated - Availability and PLF (%) • Availability • PLF • Consolidated • Mundra • Tiroda • Kawai • Udupi • Consolidated • Mundra • Tiroda • Kawai • Udupi • Consolidated • Mundra • Tiroda • Kawai • Udupi • Consolidated • Mundra • Tiroda • Kawai • Udupi • Consolidated • Mundra • Tiroda • Kawai • Udupi • Consolidated • FY 2015-16 • FY 2015-17 • FY 2017-18 • FY 2018-19



#### Social & Relationship Capital

## The Right Pathways to

Shared Progress



We forge strong relations with our stakeholders to ensure long-term sustainability of our business and to address stakeholder concerns. Through the year, we regularly engage with our stakeholders that include – Communities, Regulators, Industry Associations, Trade Bodies, Customers, Suppliers, Contractors, among others.

There are multiple facets to our approach towards managing the Social and Relationship Capital. These include policy advocacy, protecting human rights, focusing on resettlement and rehabilitation of communities, and running various CSR programmes for engaging with the communities.

Refer to pages 16-17 of this Report for specific details on stakeholder engagement.

FY 2018-19 Highlights

>6.50 Lakh

Direct beneficiaries through CSR activities



#### **Policy Advocacy**

We participate in creating valuable exchange through trade and industry associations, which help and guide the sector in influencing industry-level policies in a responsible manner.

We view the membership of these bodies as strategic. Through these bodies, we have represented various issues of concern relating to power sales and despatch, environmental norms, coal supply and logistics before authorities and organisations, such as the Ministry of Power, the Ministry of Environment, Forests and Climate Change, the Central Electricity Authority, and Coal India Limited.

#### Our Membership in Various Trade Bodies and Associations

Association/Industry Body	Positions Held
Association of Power Producers (APP)	Member
Confederation of Indian Industry (CII)	Member
Federation of Indian Chamber of Commerce and Industry (FICCI)	Member
Independent Power Producers Association of India (IPPAI)	Member
Gujarat Chamber of Commerce and Industry (GCCI)	Member
Ahmedabad Management Association (AMA)	Member
National Safety Council (NSC)	Member
Quality Circle Forum of India (QCFI)	Member
Gujarat Safety Council	Member

#### Responsible Value-Chain Partners

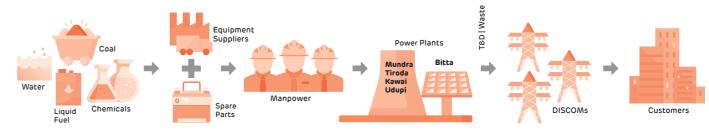
We believe that comprehensive growth and long-term sustainability are key factors that will help our business prosper. We are equally committed to our future generations while delivering long-term value to our stakeholders.

A reliable and sustainable supply chain is critical to drive efficiency in business and scale operations across our facilities. Our businesses benefit from their competitiveness and scale, and the value integration of coal, port and power together provide the most desired synergy.

This synergy helps us in quick turnaround of our projects and delivers the best value to all our stakeholders. Additionally, our seven units of 660 MW are identical, giving us an advantage when it comes to spares and vendor management.



#### Our Value Chain



#### Social & Relationship Capital

The Right Pathways to Shared Progress

As part of the business process transformation initiatives under DISHA and AGILE, we have formulated a structured supply chain management process. We have a competitive advantage owing to our scale of business and forward and backward integration with Group businesses for coal logistics and transmission of power. This synergy helps us in quick turnaround of our projects and delivers the best value to all our stakeholders, including a common vendor base across Group companies. Having identical units at most of our operating locations proves advantageous for us when it comes to spares and vendor management. Indigenisation of critical equipment and increasing our domestic vendor base is a priority, which is measured and reviewed on a monthly basis.

Vendors are the co-authors of our success story. We believe in trust and enduring partnerships to endorse high quality and value of the asset being constructed. We have a process of onboarding for all the vendors through pre-qualification, which ensures vendor credentials and capability to execute assignments; adherence to health, safety and environment norms; and compliance with statutory requirements, including human rights. We measure the performance of the vendors and provide regular and transparent feedback for their improvement and development. We consider domestic vendors operating out of India as local vendors. In FY 2018-19, we had a base of 6,336 vendors as against 4,958 vendors in FY 2017-18. Nearly 98% of these vendors are from the domestic market.

#### Social Compliance

We are proud to have good relations with the community and the social licence to operate for all our power plants. In FY 2018-19, no cases were filed by any stakeholder against the Company for non-compliance with applicable regulations, including breach of privacy and intellectual property rights.

We strive to abide by the law of the land for all applicable statutory and regulatory requirements. Also, there was no case pertaining to infringement of human rights and anti-competitive behaviour. All applicable environmental clearances have been obtained for new projects and we comply with all applicable conditions mentioned in Consent to Operate issued by respective State Pollution Control Boards. Our Mundra, Udupi and Godda power plants have been made parties in the lawsuits filed by some stakeholders in the National Green Tribunal (NGT) and other courts of law. We are also working to understand and address the point of view of these stakeholders who have adopted the legal route by making us a respondent in law suits in different courts of law.

During the reporting year, we did not make any political donations or contributions. As a policy, any political donation, irrespective of the amount, requires approval -from the Board of Directors. Currently, there are no collective bargaining agreements with our workforce for the operating power plants, including our newly acquired operations. However, our engagement activities provide sufficient avenues to our employees as well as contract workforce to voice their opinions. This includes a minimum notice period of one month for operational changes in our projects and O&M.

#### **Human Rights Protection**

At APL, we have adopted the Group's Human Rights Policy. We take necessary measures to protect the human rights of our people, recognising their need for respect and dignity. Our human rights principles are aligned with the core conventions of the International Labour Organisation (ILO), including freedom of association and collective bargaining, health and safety of our workforce, eradication of child or forced labour and harassment or intimidation at the workplace. We are committed to fair employment practices and freedom of expression, supported by a strong value system in our Company.

#### Rehabilitation and Resettlement

We comply with all applicable regulations for Rehabilitation and Resettlement (R&R) in the respective states. There were no cases of infringement of rights of indigenous community groups across our locations. We did not have any significant negative impact on local communities at any of our locations. There were no cases of physical or economic displacement of local people at the operations covered within the boundary of this Report.

Recently, we started the land acquisition process for our Godda project in Jharkhand. The Social Impact Assessment study is being conducted and an R&R action plan will be implemented after its approval by the State Government.

#### Community Engagement

APL focuses its activities around four core areas: Education, Community Health, Sustainable Livelihood and Community Infrastructure Development. We are working across five states, covering 200 villages, touching the lives of more than 6.7 lakh people with a human-centric approach to make the CSR programmes sustainable, transparent and replicable. We are diligently continuing with our flagship programmes like Swachhagraha, SuPoshan and Udaan in addition to our other initiatives.

We identify the community as one of our key stakeholders and work closely with them at all our locations. Our community engagement starts with social need identification at the early stages of project planning and runs through the entire life cycle of the projects. To begin with, our team has formal and informal interactions with the local communities to understand their needs well in advance of the commencement of the project work.

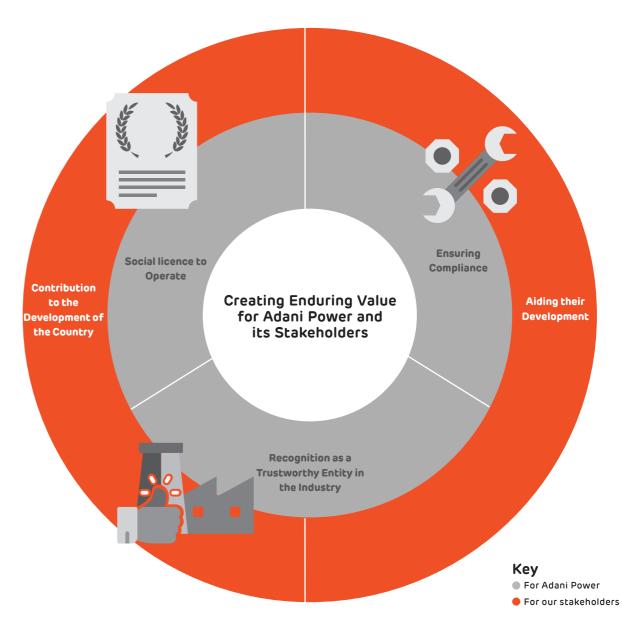
We also take help of external agencies for identifying community needs in a formal way. The needs are then bucketed into core areas of education, health, livelihood and infrastructure development and relevant social intervention programmes are designed and implemented.

We also carry out social impact assessment at defined intervals and initiate changes in our CSR programmes based on the stakeholders' inputs and the outcome of the impact assessment. The key initiatives and respective amount spent are detailed below:

Adani Power CSR FY 2018-19	Expenditure (₹ in Millon)	Impacted SDG
Education	19.462	4 mi
Health	21.391	3 10000. N∕₩
Infrastructure Development	61.728	A Bide
Sustainable Livelihood	18.199	a martina.
Total	120.780	

We receive feedback, both through formal and informal channels. This includes letters, email, and one-on-one communications. We then record the feedback, including the appreciation as well as grievances and expectations from local communities. Suggestions and demands by local communities shared informally are routed through the Gram Panchayat and discussed in the presence of the village development committee. Our CSR team provides support to the community if suggestions are related to the latter's advantage. We periodically conduct impact assessment studies of our CSR initiatives at all operating locations. Impact assessment of CSR activities is done on a rolling basis so that every individual location is covered once in five years.

Refer to pages 28-34 of our Annual Report 2018-19 for more details on our CSR activities



#### **Human Capital**

## The Right Way of

## Nurturing Talent



We work towards maintaining a work environment where employees can connect. During the year, the number of permanent employees stood at 2,186 with an average age of 36.21 years. The number of person-days worked by contract workforce was 2.19 million and an average of 6.74 person-days of training per employee was achieved.

We look at this organisation as a family in which people form the most crucial part. Given the exponential growth of the Adani family into diversified businesses, it's imperative for us to attract and retain the best talent. Human Resource is our most precious capital propelling the business to newer heights of growth.

We seek to integrate global best practices into our policies to improve employees' communication and engagement, talent management, as well as training and development. Employee welfare, grievance management, health and safety are also among our priorities.

FY 2018-19 Highlights

2.19 MN

2,186

6.74

Person-days worked by contract workforce

APL Employees

Person-days of training per employee

#### **Human Resource Policies**

Our HR policies encompass several aspects related to human resource management with the internal web portal supporting 28 employee-centric policies.

Group HR policies of the Company are uniform across business verticals, which allows us the flexibility to internally transfer workforce and meet organisational necessities. We have established a structured process to take feedback from employees. During the year, 22 policies were reviewed and modified based on feedback received from employees. Amendments in policy are communicated to employees through channels. This year, we introduced specific changes to allow greater benefits for junior and middle management cadres.

There was a total of 128 new recruits at APL, of which only two left in the same year. Attrition rate came down to 6.45% in FY 2018-19 compared to 8.38% in FY 2017-18, across all sites. During the reporting year, female employees neither left the organisation nor joined. As on 31st March, 2019, 5.21% employees were due for retirement in five years across all locations, while 12.30% employees were due in 10 years. There were 6,222 contracted employees, including 142 females.

#### Workforce Details by Gender and Age Profile

		Age Group	Gen	der	
Employee Category	<30 Years	30-50 Years	>50 Years	Male	Female
Senior Management	0	37	63	100	0
Middle Management	2	342	52	395	1
Junior Management, including Trainees	300	682	17	997	2
Supervisory	228	443	14	678	7
Contractual (Full-time Appointee and Consultant)	0	3	3	6	0
Grand Total		2,186		2,1	86



**6.45%** 

Attrition in FY 2018-19 as compared to 8.38% in FY 2017-18

#### Learning and Development (L&D)

An organised framework helps us identify the L&D requirements of our employees. As part of the performance management process, employees, with assistance from their reporting managers, engage in Training Need Identification (TNI). The identified training needs are classified into two categories, i.e. technical and behavioural. The former is imparted by internal and external resources organised by Adani Power Training and Research Institute (APTRI). APTRI also trains other external clients from Indian and foreign utilities for capacity building programmes in the infrastructure and energy sector. All TNIs for behavioural areas are classified and aligned into 15 thematic areas with specific training programmes being developed for each.

The objective behind behavioural training is to imbue a culture of learning in the organisation, anchored around the Group's vision and values. To this end, a Centre of Excellence (CoE) for L&D and talent management was established at the corporate office.

APL has outlined an annual target of five person-days of training per employee, including minimum 2.5 days of behavioural training. During the year, 6.74 person-days of training was imparted to each employee.

Additionally, 1,816 employees enrolled for online training programmes through eVidyalaya, our initiative to offer an e-learning platform to employees. Our contract workforce received three levels of training, involving induction training as a pre-requisite to gate pass, area specific training and job specific training before engaging in the work.



#### **Human Capital**

The Right Way of Nurturing Talent

#### **Employee Welfare**

We go beyond prioritising the welfare of our employees to help enhance their family's quality of life. Remuneration and benefits are routinely revised to retain and attract talent and employee benefits include healthcare support.

We also provide interest-free loans, interest subsidy on housing loans and scholarships to our employees' children for higher education. Housing facilities are extended in the Company's township to the employees at all remote locations.

Our Company refrains from gender-, ethnicity- and religion-based discrimination, ascertaining equal pay, recruitment, training, hiring and promotion opportunities. Eligible employees are offered parental leave. No female employee opted for parental leave during the year while 121 male employees applied for the same. All employees returned to work after availing the parental leave.

#### **Employee Wellness**

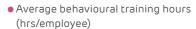
We work towards helping employees live a more refined life and offer several facilities, such as gymnasium and indoor and outdoor sports clubs across our operating locations. Parenting sessions for employees and their spouses alongside sessions on career and character counselling for employees' children are also supported by the organisation.

We comprehend deeply the need to have proper healthcare facilities at our plants since they are situated away from the metropolitan cities. Our plants are equipped with an occupational health centre, ambulance facility with life-support systems, qualified doctors and paramedical staff. We have partnered with reputed service providers to conduct pre-employment and periodic medical examinations for our workforce. A mobile-based application called Emcare, which enables our employees to access their health records have also been established by us. We organise annual cricket tournaments across all our facilities alongside encouraging the practice of playing table tennis, basketball, volley ball, badminton, chess, carrom, and so on. These games act as a medium for employees with diverse roles to collaborate and interact with each other, helping build team spirit.

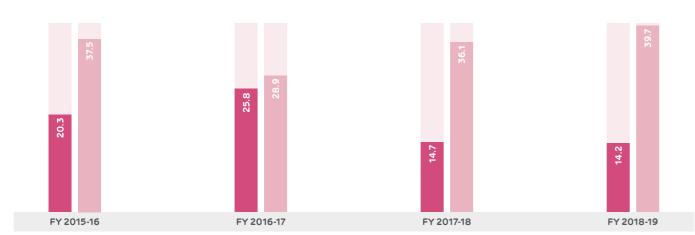
#### Category-wise Total Person-hours of Training for FY 2018-19

	Behavioural Training	Technical Training
Employee Category	Male Female	Male Female
Senior Management	1,113 -	1,676 -
Middle Management	7,243 15.6	13,305 69.5
Junior Management, including Trainees	12,743 31.2	41,880 13.5
Supervisory	9,682 54.6	29,902 47.5
Contractual (Full-time Appointee and Consultant)	8,750	

#### Average Training Hours - Adani Power (Business)



 Average technical training hours (hrs/employee)



#### We embarked on a journey to achieve growth, agility and sustainability in FY 2018-19.

#### Description

Performance Management System and Other Initiatives

Initiatives

Constant suggestions on career development and means to improve performance enable our workforce to perform with greater efficiency. During the reporting year, 91.5% employees were eligible for performance appraisal, of which the process was completed for 100%.

North Star Programme (Harvard Leadership)

The programme is crafted in collaboration with the Harvard Business School. We focus on building employee competencies in business acumen, execution and people management. High Potential (Hi-Po) employees, critical position holders and N-1 position holders are invited for this programme. This year, 68 employees completed the programme and 28 new participants enrolled.

Three-year Roadmap – HR Initiatives

This programme assesses internal candidates in terms of their potential to shoulder enhanced responsibilities and leadership roles. This strategy ensures that we continue to have a strong talent pipeline across all levels.

New Human Resource Management System (HRMS) (Oracle Fusion) ERP solution supports data management for employees. We are working to make this IT-enabled platform more advanced for further integration of HR processes, starting from sourcing to exit. Our attempts are to develop a dedicated ERP for data management of contract workforce, including statutory compliances.

Succession Planning Process

This exercise has been carried out for 99 positions at N-1 and N-2 levels. It was conducted keeping in mind the fact that 27 employees from the senior leadership are going to retire soon. The successors will go through structured development programmes and the necessary job rotations to become better acquainted with their designated roles.

A structured process helps us identify the high-performing and high-potential employees of the organisation. To facilitate transformation within the organisation, specific intervention processes have been formulated under the signature programme 'Becoming Future Ready'. Through this, identified employees undergo a semi-structured behavioural laboratory experience.

Respect and Dignity Initiatives We celebrate the annual long-service award ceremony wherein employees who have completed over 10 years of service with the organisation are felicitated.

Human rights concerns are handled sensitively within the organisation. The security personnel we have employed are sensitised on usage of force and trained in human rights with diverse situations as instances.

We are attempting to conduct an end-to-end survey on employees as an effort to inculcate the values of respect and dignity among them.

We have put in place engagement programmes for our employees and their family members wherein we organise 'Saraswati Samman' annually. This initiative aims at encouraging the academic performance of our employees' children and extending a platform to showcase their talent.

Employee Communication and Feedback Our channels helps us engage with employees across levels. Organisation-wide mailers, newsletters and 'Vartaalap' – a town hall meeting of leaders with all employees are instances of such channels. Through them employees are encouraged to raise their viewpoints and directly interact with the leaders. We also drive online surveys to collect employee feedback.

We initiated HR clinics for employees with concerns to connect with HR personnel from any location. A quarterly newsletter was launched to apprise employees on recent developments and events related to our Company.

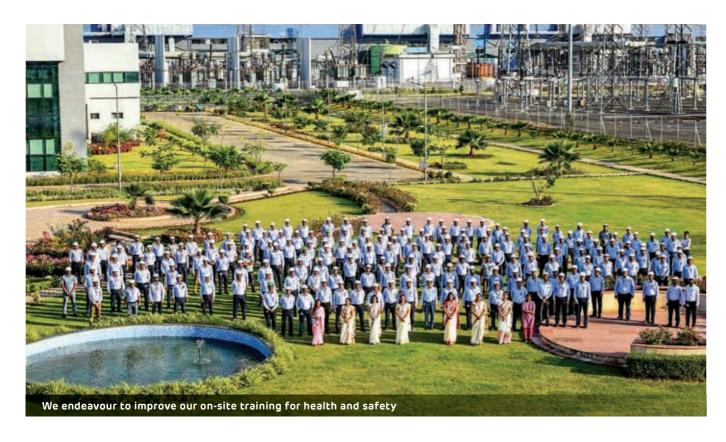
We interact with new recruits before bringing them on board. A representative from the recruitment team is assigned to orient prospective employees. When employees join us, we have a 'Sahyogi' programme to acquaint them with the workings. We have a mechanism in place to gather feedback at regular intervals.

Takshashila Programme

To help our senior leadership become better at what they do, we initiated the Takshashila programme where we collaborate with the Indian School of Business (ISB), Hyderabad. Nine employees have enrolled in this programme during the year to attend six days of classes per quarter at ISB.

#### **Human Capital**

The Right Way of Nurturing Talent



#### Occupational Health and Safety (OH&S)

Our health and safety policies are sanctioned by our Chairman and we strictly adhere to these policies. Our OH&S functions have been made operational across all sites for effective implementation of these policies and protocols.

We implemented OHSAS 18001 to strengthen our integrated management system. We make sure to interact on safety before new employees or any contract agency is onboarded.

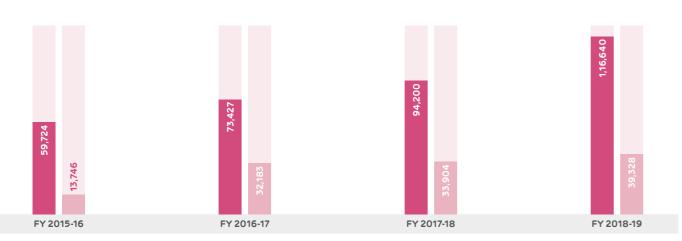
We endeavour to improve our health and safety on-site training. We also seek to raise awareness alongside conducting refresher sessions for both permanent and contractual employees.

#### Safety Training (person-hour) - Adani Power (Business)

• Contractual Workforce Training Hours

During the year, to align our safety systems with global standards we initiated a cultural, safety transformation journey titled 'Project Chetna'. We hope to achieve our objective of 'Zero Harm', which is only possible through the implementation of enhanced safety standards in consultation with M/s DuPont, a pioneer in safety management. Phase-I of this project included an 'as-is-analysis' and quick-win opportunity identification through the DuPont dynamic assessment, which was integrated seamlessly into our operations this year. Phase-II comprises five modules – Safety Interaction, Incident Management, Contractor Safety Management, Process Safety Management and High Risk Activities.

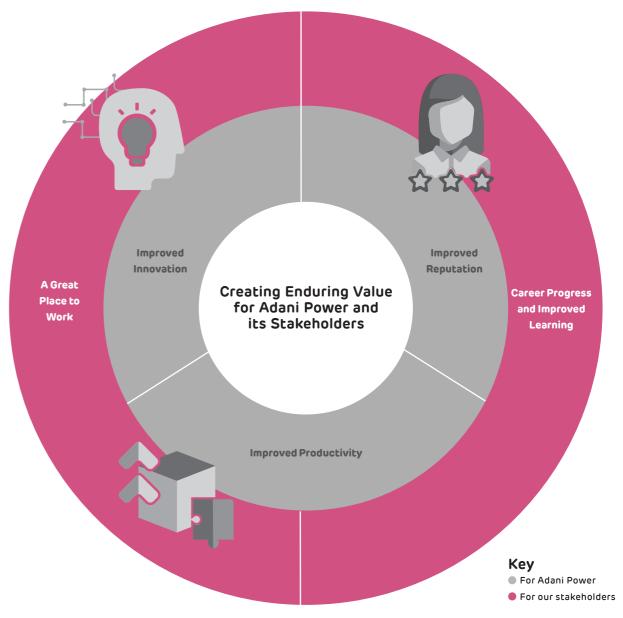
APL Training Hours



#### Safety Data

		Contractua	l Workforce			Permanent B	Employees	
	FY 2015-16	FY 2016-17	FY 2017-18	FY 2018-19	FY 2015-16	FY 2016-17	FY 2017-18	FY 2018-19
Injuries	2.00	9.00	2.00	3.00	1.00	2.00	2.00	0.00
Lost time injury rate	0.03	0.17	0.04	0.03	0.04	0.07	0.08	0.00
Lost days	354	2,254	115	262	12	127	49	0.00
Lost days (including fatalities)	6,354	50,254	12,115	262	12	127	49	0.00
Lost day rate	3.57	21.99	1.18	2.99	0.44	4.54	1.90	0.00
Lost day rate (including fatalities)	64	490.17	124.64	2.99	0.44	4.54	1.90	0.00
Million hours worked	19.86	20.51	19.44	17.53	5.51	5.59	5.16	5.04
Fatalities	1.00	8.00	2.00	0.00	0.00	0.00	0.00	0.00

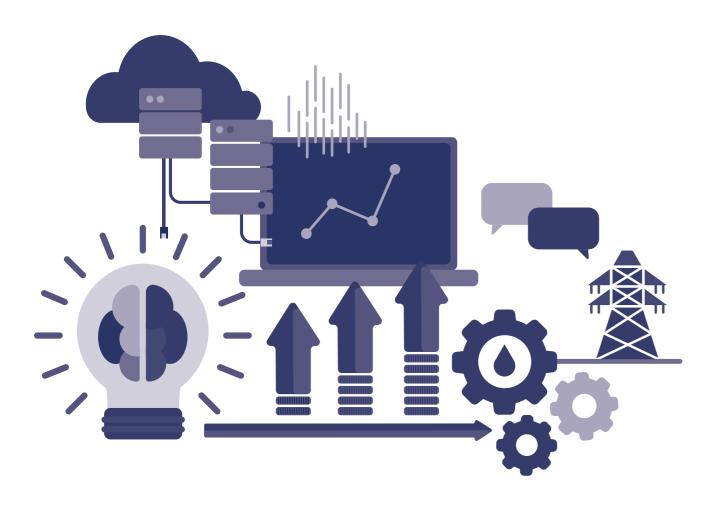
We hope to achieve our objective of 'Zero Harm', which is only possible through the implementation of enhanced safety standards in consultation with M/s DuPont, a pioneer in safety management.



#### **Intellectual Capital**

## The Right Way to

## Leverage Intellect



The 12 Six Sigma projects we executed during the year helped us save \$110 million through the two major process improvement initiatives namely AGILE and DISHA. The exponential growth of APL has been a result of our initiatives in relation to business process transformation and experience, in addition to our efforts in garnering implicit knowledge of our people,

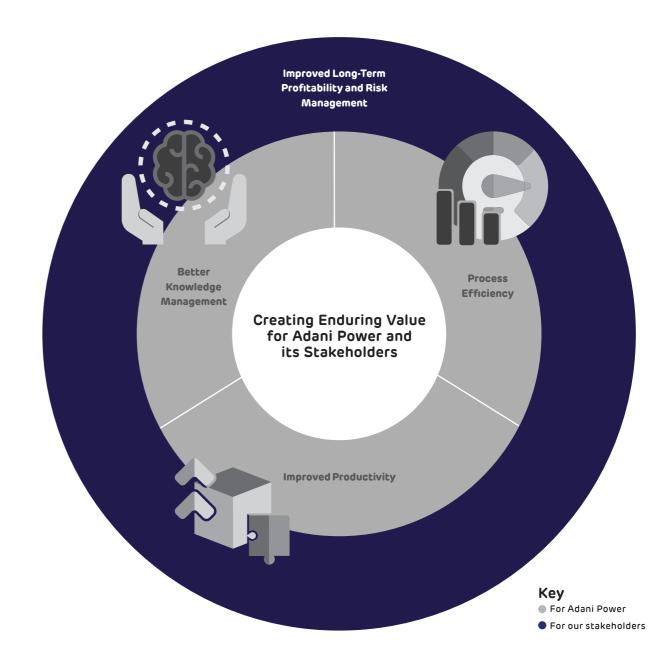
management systems, vendor database and other customised IT solutions and business excellence tools.

The features constituting our Intellectual Capital are constantly enhanced through our collaboration with business partners in augmentation procedures.

FY 2018-19 Highlights

#### ₹110 MN

Savings through the two major process improvement initiatives AGILE and DISHA



#### **Business Process Transformation**

Our efforts have been to standardise and transform our business processes in the areas of project, operation and other service functions under AGILE, DISHA and SYNERGY programmes. We have made extensive investments in terms of resources, time and financial capital of our Company in working towards this cause.

External consulting organisations with expertise in the field of process standardisation have come together with us to develop various processes under certain initiatives.

Refer to pages 44-45 of this Report for specific details on these initiatives.

#### Intellectual Capital

The Right Way to Leverage Intellect

#### The following initiatives are aimed at making our processes more dependable and futuristic

Initiatives	Description
AGILE – Projects	It is a business process transformation initiative focused on power, ports and mining business projects. The objective of AGILE Business Process Testing (BPT) is to establish and standardise the best-in-class IT-enabled processes across business verticals. The programme is focused on sustainable asset building with speed at optimum cost, establishing processes and systems to manage projects and integrating sustainable approach across functions.
DISHA – O&M	Another business process transformation initiative focused on power business operations. The objective behind DISHA is to establish sustainable practices in O&M, fuel management, strategic planning and revenue management; Management Information System (MIS) and HR processes of global standards through operating model redesign; and process definition and implementation, including IT enablement.
SYNERGY - HR/IT and Finance and Accounting (F&A)	Through this programme, the HR team's aim is to build sustainable and scalable HR processes that will effectively address the needs of the Adani Group vision. The objective is to deliver world-class process quality while becoming significantly more efficient in the utilisation of personnel by leveraging automation. We seek to create a process-centric culture alongside preserving our entrepreneurial spirit and agility.
Management Systems	Across our operating plants, there exists an Integrated Management System (IMS) in line with the requirements of ISO 9001, ISO 14001, OHSAS 18001 and ISO 50001. During the year, we transitioned to the 2015 version of ISO 9001 and ISO 14001. The process of transforming from OHSAS 18001 to ISO 45001 is underway. We also improved our internal capabilities across operating plants by developing a team of certified Lead Auditors for the IMS to enhance system efficiency.
E-logbook at Operating Power Plants	In association with business partner Crave Infotech, APL developed a web based e-log system to bring down paperwork and manual logbook entries.  The E-logbook system is helping us in optimising the work efficiency and better management visibility of all tasks being carried out in the plant. The application is important to make the information more accessible using simple portal-based tools and retrieving functionalities. The system provides shift-wise reports, such as shift defects and activities, major follow-up, manning details, unavailability of equipment and other critical parameters.
Customised ERP System	The ERP system has been customised keeping in mind the nature of our operations. The system collects data on material purchase and consumption, plant operations, employees and workforce, and waste generation and disposal.

Initiatives	Description
Business Excellence and Workplace	Our goal is to uphold the highest standards of quality in everything we do. We, therefore, rely on a certified blend of management methods and tools, with suitable customisation according to our requirements.
Management	We have received a joint recognition from the Japanese Union of Scientists and Engineers (JUSE) and the Quality Circle Forum of India (QCFI), under the highest category, for our operating locations two years back.
	We also strengthened our intrinsic methods of workplace management by training identified employees with potential to become certified lead assessors of 5S. Currently, the team has 72 certified lead assessors of 5S. Each year, a couple of teams from each operating plant participate in the National Convention on 5S and other rewards and recognition programmes. The teams receive accolades at various forums.
	Six Sigma projects initiated at our Mundra, Tiroda and Kawai plants is another one of our significant accomplishments ensuring business excellence. A total of 90 employees underwent training, following which they were certified as Green Belt for Six Sigma. Another batch of employees are working on the Six Sigma projects and we expect a strong team of about 200 employees possessing the Six Sigma greenbelt within FY 2019-20.
	This financial year, 12 Six Sigma projects were executed by us, which resulted in a cumulative cost saving of ₹110 million.
Vendor Database	APL benefits from the huge vendor database available across various business verticals of Adani Group. This database helps us in volume consolidation, resulting in better negotiation with vendors. Additionally, performance feedback of vendors across the Group helps in finalising better vendors for our job.
Knowledge Sharing	Knowledge sharing among employees across departments is a priority for us. The talk conducted by our Techno-Commercial team is one such initiative wherein senior leaders are invited to share their understanding with other team members.
Category Workbook for techno-commercial details of procurement	We have put in place a process of institutionalising the knowledge exchanged, categorising in terms of individual subject matter in a 'Category Workbook'. Crucial procurement items and services are divided into various categories and detailed category workbook is created by its subject matter expert, which provides necessary information, including technical aspects, past purchase data, supply market analysis, risk mitigation plans, and so on.

## Forging the Right

## Ecological Footprint



Coal and water are the primary resources of thermal power generation. We are also equally cognisant of the impact our operations have on the natural environment and we constantly strive to minimise this impact. We used 2.23 MCM of harvested rainwater, thereby reducing surface water usage.

We also accomplished 93.2% fly ash utilisation with 100% use at our Mundra, Kawai and Udupi plants. Our GHG emission intensity was 0.85 tCO<sub>2</sub>/MWh. Comprehending fully the interconnection between ecosystem services and business sustainability, we seek to minimise harmful impact on biodiversity.

FY 2018-19 Highlights

2.5 m<sup>3</sup>/MWh

93.2%

Freshwater consumption in hinterland power plants, versus the statutory limit of 3.5 m<sup>3</sup>/MWh

Fly Ash Utilisation Rate

Water-treatment unit at one of our plants Power generation from fossil fuels is an inherently resource and Specific Water Consumption (m3/MWh)

emission-intensive activity. Our operations principally impact the environment through stack emissions, natural resource depletion and waste generation. The stack emissions generated by us include Particulate Matter (PM), Oxides of Sulphur (SO\_) and Oxides of Nitrogen (NO.). Additionally, CO., is emitted during combustion of fossil fuels. For activities where coal is used as the primary fuel, the majority of solid waste generated is fly ash.

Large investments and the decisions that accompany them in new businesses may bear an irreversible impact on the environment, eroding its Natural Capital. It is because of this hazard that we adopt precautionary approaches through due diligence and a risk identification process. The first step towards becoming a more responsible business is to identify the ways in which our operations affect the environment in our IMSs.

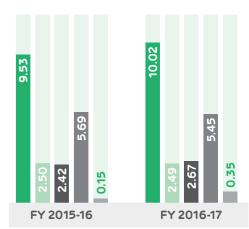
#### Water Conservation and Management

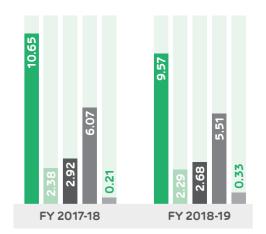
In our operations, water is principally used to generate superheated steam that powers our turbines. We have initiated the usage of seawater across our coastal plants and our facilities in the hinterland have been configured to use surface water sources. We are working to minimise the withdrawal of surface water during summer. For ash handling and dust suppression, we refrain from using water from natural sources as the system is crafted to use recycled and reused water.



For our power plants, a source sustainability study of surface water was conducted based on primary data and secondary historical data of the past 25-30 years published by the Indian Meteorological Department.

- Mundra | Site
- Udupi | Site
- Tiroda | Site Kawai | Site
- Bitta Solar | PV





Forging the Right Ecological Footprint



The results of the study will guide us in making rational use of surface water. In Tiroda, we are steadfastly working towards better watershed management. De-silting and cleaning community water ponds was one of our interventions to improve groundwater recharge. To continue our operations without eroding Natural Capital, water storage capacity was augmented to cater to 53 days of operations requirement for the Tiroda plant and 23 days for the Kawai plant to prevent further depletion of surface water levels during lean season.

During the reporting year, our plants achieved specific water consumption close to 2.5 m³/MWh as against the statutory limit of 3.5 m³/MWh. Seawater consumption has no stipulated limit in India. However, for seawater-based power plants we set stretched internal water consumption target of 9.5 m³/MWh in case of seawater FGD at Mundra, and 6 m³/MWh in case of limewater FGD at Udupi. Our Mundra and Udupi power plants nearly accomplished these internal targets during FY 2018-19.

We initiated rainwater harvesting in our plants to bring down the withdrawal of surface water. At Mundra, rooftop rainwater harvesting is being deployed to recharge groundwater and mitigate seawater ingress. At Kawai and Udupi, we constructed rainwater harvesting facilities and utilised 1.10 million m³ and 1.12 million m³ of harvested rainwater, respectively, which was used for plant operation.

The total volume of wastewater generated and treated wastewater discharged at our power plants were 224 million m³ and 205 million m³, respectively, in the reporting year. Our cooling towers at Mundra and Udupi are seawater-based and the discharged water is essentially a blowdown of the cooling towers.

We ensure the maintenance of temperature differential within the prescribed limit of 5°C before discharging water from our premises. We have set up effluent and sewage treatment plants, a coal runoff treatment plant and a secondary Reverse Osmosis (RO) plant.

Besides the core processes, water is required for dust suppression in coal handling and for purging out the bottom ash generated in our boilers. We meet our water requirement for secondary processes through recycled and reused water from our water treatment plants

or from the blowdown of the cooling towers. During the reporting year, 38.5% of water was recycled and reused. We also abstain from using water for coal cleaning in our operations.

#### **Material Consumption**

In the financial year, we consumed the following key materials for our O&M activities, whose optimal use we have sought to maintain.

#### Material Consumption (in MT)

FY 2015-16	FY 2016-17	FY 2017-18	FY 2018-19
Coal Consumed			
3,65,09,464	3,39,59,200	2,73,87,237	3,35,06,157
Chemicals Used			
9,422	9,551	9,106	10,387
Lubricating Oils	(in KL)		
329	201	153	102
Grease			
33.9	27.3	24.9	24.5
LDO/HSD Consu	med		
3,362	3,055	3,358	84,274
HFO Consumed			
3,732	1,832	1,238	535
Diesel (consume	d in equipment ar	nd vehicles)	
2,711	2,275	1,774	1,527

#### Waste Management

The utilisation and disposal of hazardous and non-hazardous wastes generated by power plants are governed by strict regulations. Ash is non-hazardous waste and a material aspect for us considering the quantity and challenges for utilisation in certain geographical areas, such as at our Tiroda plant.

The hazardous wastes generated are used oil, spent resins and empty oil containers. These are disposed through authorised agencies in accordance with the Hazardous Waste Handling and Management Rules. During the financial year, no significant spills were reported. We do not use any Polychlorinated Biphenyls (PCBs) and, therefore no generation of PCB waste was recorded. We do not engage in import or export of any hazardous waste or materials under the Basel Convention. There is no radioactive waste generated and disposed from our power plants.

#### Hazardous Waste (t)

	FY 2016-17	FY 2017-18	FY 2018-19
Oil Soaked Waste	1.63	3.18	3.55
Biomedical Waste	0.082523	0.06875	0.090815
E-Waste	6.30	9.58	5.33
Used Lead Acid Batteries	110	24.2	66.6
Used/Spent Oil	102	150	83.0
Spent Ion Exchange	0.31	56.6	9.51

#### Non-hazardous Waste (t)

	FY 2015-16	FY 2016-17	FY 2017-18	FY 2018-19
Metallic Waste	4,329	3,291	2,471	4,319
Plastic Waste	180	315	238	419
Wooden Waste	222	156	155	81.4
Paper Waste	0.63	6.38	39.3	18.3
Organic Waste	4.40	51.4	31.7	34.5
Misc. Waste	145	1,675	1,749	734

#### Fly Ash Management

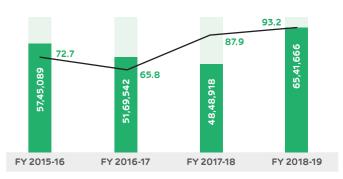
Fly ash is a solid waste that comes from coal-based power generation. Moist conditions are maintained in the ash pond surface to prevent fugitive emissions. In Tiroda, we installed a High Concentration Slurry Disposal (HCSD) system for ash disposal, which allows the ash to get solidified instantly.

The Central Government has emphasised the need to optimally use ash from power plants. Although utilisation of fly ash can be a challenge for the entire power sector considering the total quantity of ash generated, at APL, we were able to accomplish an impressive utilisation rate of 93.2% during the year.

This includes 100% utilisation at our Mundra, Kawai and Udupi plants. Considering fly ash to be a useful resource, we developed infrastructure that supports the handling and selling of fly ash. This helped us increase our ash supply for utilisation to specialised agencies for use in cement manufacturing.

#### Fly Ash Generation and Utilisation Trend - Adani Power (Business)

• Fly Ash Generation (t) —— Fly Ash Utilisation (%)



Ash utilisation is one of the primary challenges at Tiroda due to its geographical location with all cement plants being at least 250 km away. We have undertaken initiatives to ensure sustainable utilisation of fly ash at our operating locations, with focus on our Tiroda power plant:

- Establishing a Fly Ash Utilisation Promotion and Research Park at Tiroda.
- Developing a facility to load fly ash in specialised railway wagons at Tiroda.
- Training and encouraging entrepreneurs to start fly ash brick manufacturing and cenosphere collection businesses in the vicinity of our Tiroda power plant. Local interested entrepreneurs are being trained for two years and 50 entrepreneurs have established fly ash brick manufacturing plants so far.
- Installing fly ash brick plants within our premises with a
  capacity of 10,000 bricks and 500 tiles per day for inhouse
  consumption. These fly ash bricks and tiles are used at all
  construction sites and township areas. During FY19,
  0.135 million fly ash bricks and 0.062 million tiles were
  manufactured at Tiroda power plant.
- Using pond ash for bund raising in the ash dyke, thereby making pond ash freely available for the purpose of roads, buildings and infrastructure development in nearby areas.
- Engaging with the Advanced Materials and Processes Research Institute (AMPRI), Bhopal, a unit of the Council of Scientific and Industrial Research (CSIR), Government of India, for research on fly ash utilisation for soil conditioning.
- Initiating the process of composting of organic waste, generated from our operating locations with a blend of fly ash to make quality compost and manure for the green belt and landscaping around our power plants.

Forging the Right Ecological Footprint

#### **Emissions Management**

In December 2015, the Ministry of Environment, Forests and Climate Change (MoEFCC) notified the limits for specific water consumption and stack emissions from thermal power plants for  $SO_x$ ,  $NO_x$ , PM and mercury emissions. Across our existing operational units, we remain in compliance with the new emission standards for mercury and PM. To achieve compliance with the new standards for  $SO_x$  emissions, we are working in accordance with the phasing plan prepared by the CEA. Almost all power plants in India have to upgrade their pollution control devices for control of  $SO_x$  to match the new standards, thus a schedule, known as 'phasing plan', was prepared by the CEA for installation of FGD systems in every plant. Accordingly, FGD implementation for all our operating units were scheduled.

We are in consultation with technology providers and industry forums in India to solidify a way to maintain  $NO_x$  emissions within 300 mg/Nm³ from existing operational units.

The total emissions of PM,  $\rm NO_x$  and  $\rm SO_x$  in the reporting year were 9,276.32 MT, 71,730.77 MT and 1,92,920.26 MT, respectively. The emissions are monitored on a real-time basis through a Continuous Emissions Monitoring System (CEMS), which also includes mercury emissions. These results are directly linked with the Central Pollution Control Board servers. Additionally, we regularly conduct off-line monitoring of our stacks. Ambient air quality monitoring is also used through an online Ambient Air Quality Monitoring System (AAQMS).

#### **Biodiversity Conservation**

The sustainability of our business is intricately linked with the ecosystem around which we operate, including the forests, grasslands and mangroves. We make concerted efforts to ensure minimal impact on the environment, generating the least harm to biodiversity through our operations.

The Convention on Biological Diversity (CBD), known informally as the Biodiversity Convention, is a multi-lateral treaty. India enforced the Biological Diversity Act, 2002 in a bid to provide a mechanism that allows equitable sharing of benefits, that come from traditional resources and knowledge.

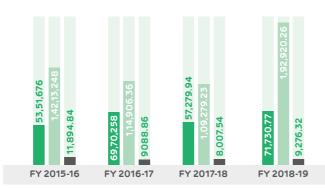
Contributions made by the elements of biodiversity are collectively called ecosystem services.

We believe in an approach of plantations for habitat offsetting and driving positive transformation around our plant and office locations. We focus on local and diverse species for such plantations and have crafted novel means of conservation with a specific method assigned to individual species that are common across the areas of our projects.

In Mundra, we conducted mangrove plantation in the coastal areas. Environmental impact assessment was carried out for prior approval of projects, including the evaluation of our impact on the flora and fauna. We prepare conservation plans in keeping with the site which we wish to address. These plans are prepared on the basis of scientific studies, environmental clearance and forest land diversions.

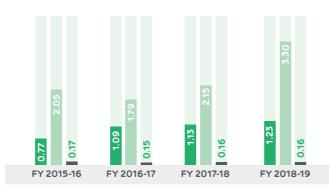
#### Emissions (t)

ullet NO $_{\rm X}$  ullet Suspended Particulate Matter (SPM)



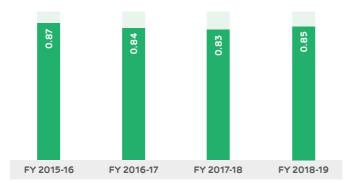
#### Emissions Intensity (kg/MWh)

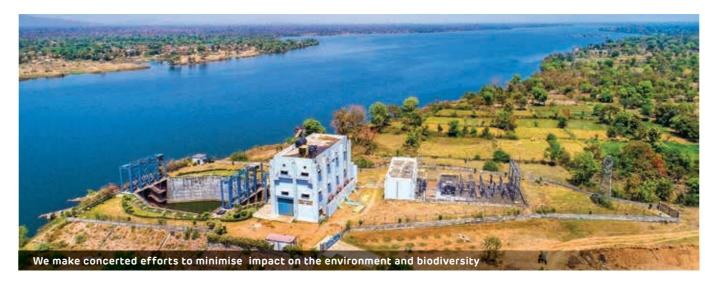
ullet NO $_{\rm X}$  ullet SO $_{\rm X}$  ullet Suspended Particulate Matter (SPM)



#### Specific GHG Emissions (tCO<sub>2</sub>e/MWh)

Adani Power (Business)





Endangered flora and fauna within a 10 km radius of our project locations are monitored to make certain that areas of biodiversity significance, protected regions or any red list species based on the reports of the International Union for Conservation of Nature (IUCN) are not affected by our operations.

We strictly keep our areas of operation away from the buffer areas and eco-sensitive zones notified around biodiversity hotspots, including wildlife sanctuaries, national parks and world heritage sites, declared under applicable regulations or international treaties ratified by India.

As part of the Environment Impact Assessment (EIA), places of ecological value are mapped in the process of environmental clearance to set up new projects. Top-rated agencies accredited by the National Accreditation Board for Education and Training (NABET) conduct these extensive evaluations. We go beyond legal requirements to conserve biodiversity hotspots within 25 km radius of our operations.

We also acknowledge the presence of notified wildlife sanctuaries within this extended radius and work in a manner that can obstruct their existence in no way. Nagzira, New Nagzira and Koka Wildlife Sanctuaries fall within 25 km of our Tiroda plant.

Besides the EIA, a separate study to predict the impact on the Nagzira Wildlife Sanctuary due to particulate matter, gaseous and thermal emissions from the Tiroda power plant was conducted through an expert external agency in 2011.

Additionally, site-specific wildlife conservation plans were mapped and implemented at the plant. We sought to make a positive difference in the lives of people in three villages adjacent to the Nagzira Wildlife Sanctuary by providing LPG gas connections and one year's supply of gas cylinders.

This helped reduce the collection and usage of firewood from the sanctuary areas. For our Tiroda power plant, 163.84 Ha of forest land was diverted, of which 15.25 Ha land was assigned to railway siding. To compensate the deforestation caused for this project, we handed an equal area of non-forest land to the forest department in Ratnagiri district of Maharashtra. This serves as an offset habitat supporting biodiversity affected due to forest land diversion.

The Shergarh Wildlife Sanctuary is located about 20 km from Kawai. The Mundra-Mohindragarh and Mundra-Dehgam transmission lines, which are part of our downstream value chain, intersect at the Wild Ass Sanctuary in Kutch and Patan districts.

Areas across the Rann of Kutch are known to attract migratory birds, and, therefore, our Group companies have installed bird deflectors at such locations of the transmission lines. At Mundra, we recognised the need to closely monitor the problem of the existence of two near-threatened species as per the IUCN list—the Black-necked Stork and Snake Bird (Darter).

Our Company is concerned about preserving the biodiversity of the areas across our plants and to this end, we make efforts to stay apprised of any legal development or compliance requirements related to biodiversity hotspots.

We conduct due diligence before choosing a site and go beyond the compliance of regulations associated with ecosystem and biodiversity services.

A marine impact assessment study has been conducted by us through the National Institute of Oceanography (NIO) to scientifically locate the intake and outfall points. Screens and gate filters were provided at the seawater intake to prevent marine life from entering the system.

Additionally, cooling towers and an 11-km-long seawater outfall channel were constructed to achieve differential temperature below 5°C between the intake and outfall points. We periodically monitor the state of marine biodiversity around the outfall area, including zooplankton and phytoplankton.

We strictly keep our areas of operation away from the buffer areas and eco-sensitive zones notified around biodiversity hotspots, including wildlife sanctuaries, national parks and world heritage sites, declared under applicable regulations or international treaties ratified by India.

Forging the Right Ecological Footprint



#### Climate Change Mitigation and Adaptation Strategy

One of the largest contributors to climate change, fossil fuels also cause increase in atmospheric GHG. Our Company was the first in the country to commission supercritical boilers, which save ~2% of fuel per unit of power generated, serving to reduce GHGs per unit. We are seeking the utilisation of ultra-supercritical units for upcoming TPPs to further reduce specific GHG emission. Till date, we have commissioned 7,920 MW (12 units of 660 MW each) of power plants based on supercritical technology.

Our thermal plants are equipped with induced draft cooling towers that have re-circulation systems to withstand the increase in water temperatures brought forth by climate change

This has been configured to sustain the optimum temperature difference across the condensers so that plant efficiency can be maintained over time. Our power plants are situated in tropical climatic zones and are designed to perform under extreme temperatures.

Change in precipitation rates affect water availability in our power plants at Tiroda and Kawai. The increasing risk of reduced water availability led us to integrate water conservation and recycling practices into our operations, including rainwater harvesting and increasing green belt across our plants.

Extreme weather conditions, such as frequent storms affect the supply of fuel alongside posing threats to generation and grid infrastructure.

As part of our preparedness against such situations, our power plants and infrastructure is designed to withstand cyclones of up to 198 kmph. We maintain adequate fuel stock for situations of short-term fuel supply stress.

Keeping in mind the rising sea levels and cyclonic surges due to global warming, the finished floor level of the Mundra power plant has been raised to 10 m above the Chart Datum (CD) - the lowest astronomical tides and mean low water, whereas the highest high tide recorded is 5.4 m above the CD.

The intake water channel is crafted at -6 m from the CD to ensure water availability even during the lowest of tides. At the Udupi power plant, the seawater intake is -4.5 m from the CD and the finished floor level is at 28.5 m above the Mean Sea Level (MSL).

Our team evaluated the risks associated with the increase in sea levels and concluded that there are no chances of the plant being affected on this account. In accordance with the inferences from sustainability studies, for power plants the financial impact has been calculated taking into consideration the loss of power generation when water is not available in any particular year due to less rainfall. To sustain our plants under such circumstances, we have created enough water storage capacity at our Tiroda and Kawai power plants.



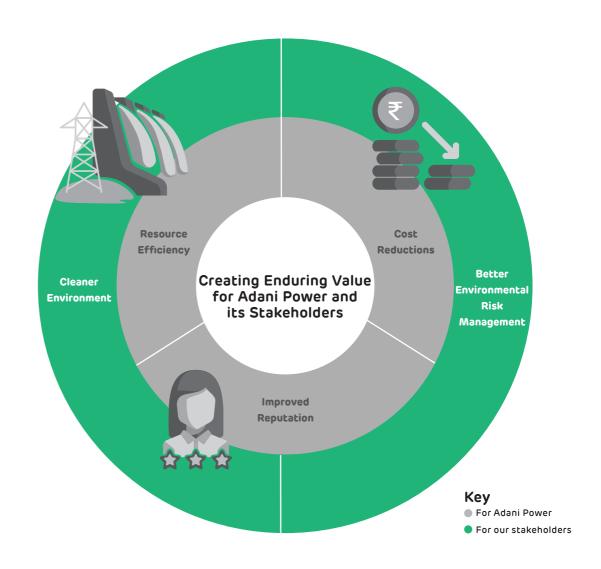
#### Managing our Carbon Footprint

As an environmentally responsible Company, we monitor the emissions generated from our power-generation process. We refrain from using biogenic fuels to avoid biogenic emissions. During the financial year, our power plants emitted 49.51 million tCO $_2$ e GHG (scope-1 and scope-2) compared to 42.0 million tCO $_2$ e GHG in FY 2017-18 and 54.6 million tCO $_2$ e in FY 2016-17 and absloute GHG emission (Scope 1 and Scope 2) for the operating power plants of the company has been as following: Mundra 19.90 Million tCO $_2$ e, Tiroda 18.60 Million tCO $_2$ e, Kawai 6.47 Million tCO $_2$ e and udupi 4.53 Million tCO $_2$ e. The intensity of the GHG emission was 0.85 tCO $_2$ /MWh in the reporting year, which marginally increased from 0.83 in FY 2017-18 due to frequent reserved shutdown of power plants and grid and load dispatch center requirements. The GHG emissions from upstream coal transportation was recorded at 0.10 tCO $_2$ /MWh.

We are also watchful of the emissions generated from support processes like company-owned vehicles and equipment, fugitive emissions from circuit breakers [Sulphur Hexafluoride (SF $_{\rm e}$ )], CO $_{\rm 2}$  based fire extinguishers, and GHG emissions as a result of electricity import during shutdowns. This financial year, we did not have to purchase electricity for PPAs, except in Bitta. We have worked towards optimising our logistic networks and this includes sourcing material that incur minimum landing expense, thereby bringing down transportation distance and encouraging local vendors in the direction of local procurement.

## Rehabilitation & Resettlement (R&R) and Change in Land Use

To strengthen our Udupi Power plant, 295 Ha of land is being outlined for the purpose of aquisition. This portion of land is within the industrial area ascertained by the Government of Karnataka. 226 Ha of land has been acquired through the Government of Jharkhand. Our objective is to optimally utilise land, with consent from the land owners and within the inbuilt framework of R&R.



#### **Conversion Factors**

Parameter	Conversion Factors
Energy	1 Gcal = 4.1868GJ 1 KWh = 0.0036 GJ
GHG Emissions	Purchased electricity from the grid 1 MWh = $0.96 \text{ tCO}_2\text{e}$ , (Ref. CO $_2$ baseline data, V-11, CEA) Global Warming Potentials ( $\text{tCO}_2\text{e}$ ) CO $_2$ = 1 CH $_4$ = 21 N $_2$ O = 310 SF $_6$ = 23,900 (Ref.: DEFRA, UK) Emissions Due to Air Travel Domestic (<463 km) = $0.00017147 \text{ tCO}_2\text{e}$ per person-km Short Haul (>=463 km and <1108 km) = $0.000097 \text{ tCO}_2\text{e}$ /person-km Long Haul (>1,108 km) = $0.00011319 \text{ tCO}_2\text{e}$ Emissions Due to Logistics of Input Material and Waste Road Transport = $0.000204 \text{ tCO}_2\text{e}$ per tonne-km Rail Transport = $0.0001517 \text{ tCO}_2\text{e}$ per tonne-km Sea Transport = $0.0000332 \text{ tCO}_2\text{e}$ per tonne-km
Water	1 KL = 1 m <sup>3</sup>
Fuels	Furnace Oil  1 KL = 0.95 MT  GCV = 10,500 Kcal/kg  Diesel  1 KL = 0.85 MT  GCV = 10,500 Kcal/kg LDO  1 KL = 0.86 MT  GCV = 10,500 Kcal/kg
Health and Safety	1 Fatality = 6,000 person-days lost



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## Independent Limited Assurance Statement to Adami Power Limited on its Sustainability Report for Financial Year 2018-19

To the Management of Adani Power Limited, Adani House, Shantigram, SG Highway, Ahmedabad, 382421.

#### Introduction

Adani Power Limited ('APL' or 'The Company') has requested KPMG (Registered) in India ('KPMG', or We) to provide an independent assurance on its Sustainability Report for the FY 2018-19 ('the Report'). The Company's management is responsible for identifying its material topics, engaging with its stakeholders and developing the content of the Report. KPMG's responsibility is to provide limited assurance on the Report as described in the scope and boundary of assurance.

#### **Reporting Criteria**

APL applies sustainability reporting criteria derived from the following:

- Integrated Reporting framework by the International Integrated Reporting Council (IIRC)
- Global Reporting Initiative (GRI) Standards by Global Sustainability Standards Board (GSSB)
- Principles of the United Nations Global Compact (UNGC)
- Performance Standards by International Finance Corporation (IFC)
- United Nations' Sustainable Development Goals (SDGs).

#### Assurance Standards Used

We conducted our assurance in accordance with

- Limited Assurance requirements of International Federation of Accountants' (IFAC) International Standard on Assurance Engagement (ISAE) 3000 (revised), Assurance Engagements Other than Audits or Reviews of Historical Financial Information. Under this standard, we have reviewed the information presented in the report against the characteristics of relevance, completeness, reliability, neutrality and understandability.
- AA1000 Assurance Standard 2008 (AA1000AS 2008) by Accountability. Under this standard, we have reviewed the nature and extent of adherence to the AA1000AS principles mentioned below:
  - a. The Principle of Inclusivity: People should have a say in the decisions that impact them
  - b. The Principle of Materiality: Decision makers should identify and be clear about the sustainability topics that matter.
  - The Principle of Responsiveness: Organizations should act transparently on material sustainability topics and their related impacts.

#### Scope, Boundary and Limitations

The scope of assurance covers the sustainability disclosures of APL for the period 01 April 2018 to 31 March 2019 limited to the disclosures as mentioned in the table below.

We have carried out assurance visits to the following sites:

- Thermal Power Plants
  - Udupi, Karnataka
  - Tiroda, Maharashtra

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KPMG, an Indian partnership firm and a member firm of the KPMG network of independent member firms affiliated with KPMG International Cooperative ("KPMG International"), a Swiss entity



- Kawai, Rajasthan
- Mundra, Gujarat
- Corporate office
  - Ahmedabad

In addition to the above, we have reviewed the relevant sustainability performance indicators of the following two locations during our visit to the corporate office:

- Godda, Jharkhand
- Bitta, Gujarat

Our assurance process was subject to the following limitations:

- Verification of claims was limited to data and information presented in the Report for the period 01 April 2018 to 31 March 2019.
- Any statement/ remarks/ comments indicating intention, opinion, belief and/ or aspiration by APL were
  excluded from the scope of assurance.
- The Assurance Statement does not include verification of financial performance indicators/information that was sourced from APL's FY 2018-19 Annual Report.

The General Disclosures, Management Approach and Topic Specific Disclosures subject to assurance as per GRI Standards are as follows:

#### General Disclosures

- Organizational profile: 102-2, 102-3, 102-4, 102-6, 102-7, 102-8, 102-10, 102-13
- Strategy: 102-14, 102-15
- Ethics and Integrity: 102-16
- Governance: 102-18 to 102-20, 102-26, 102-31, 102-32
- Stakeholder Engagement: 102-40 to 102-43
- Reporting Practice: 102-46, 102-47, 102-48, 102-50 to 102-53, 102-55, 102-56

#### Management Approach

103-1 to 103-3

#### Specific Disclosures

- Economic
  - o Anti-corruption: 205-1
- Environmental
  - o Materials: 301-1
  - o Energy: 302-1, 303-3, 302-4
  - o Water: 303-1 to 303-4
  - o Emissions: 305-1, 305-2, 305-4, 305-7
  - Effluents and Waste: 306-1, 306-2
- Social
  - o Employment: 401-1, 401-2, 401-3
  - o Labor/Management Relations: 402-1
  - Occupational Health and Safety: 403-2
  - o Training and Education: 404-1, 404-2, 404-3
  - Diversity and Equal Opportunity: 405-1
  - Freedom of Association and Collective Bargaining: 407-1
  - Security Practices: 410-1
  - Local communities: 413-1



#### Assurance procedures

Our assurance processes involve performing procedures to obtain evidence about the reliability of specified disclosures. The nature, timing and extent of procedures selected depend on our judgment, including the assessment of risks of material misstatement of disclosures whether due to fraud or error. In making those risk assessments, we have considered internal controls relevant to the preparation of the Report in order to design assurance procedures that are appropriate in the circumstances. The procedures performed in a limited assurance engagement are less in extent than for a reasonable assurance engagement.

Sustainability Performance and Value Creation Report 2018-19

Our assurance procedures also included:

- Assessment of APL's reporting procedures for sustainability reporting regarding their consistency with the application of GRI Standards.
- Evaluating the appropriateness of the quantification methods used to arrive at the data presented in the Report.
- Verification of systems and procedures used for quantification, collation, and analysis of sustainability disclosures included in the Report.
- Understanding the appropriateness of various assumptions and estimations used by APL for data analysis.
- Discussions with the personnel responsible for the evaluation of competence required to ensure reliability of data and information presented in the Report.
- Assessment of the stakeholder engagement process through personal interviews and review of relevant documentation.
- Assessment of data reliability and accuracy.
- Verification of key performance data through site visits on an annual basis for
  - Testing reliability and accuracy of data on a sample basis.
  - Review of the processes deployed for collection, compilation, and reporting of sustainability disclosures at corporate and site level.

Appropriate documentary evidence was obtained to support our conclusions on the disclosures verified. Where such documentary evidence could not be collected due to confidentiality of the information, our team verified the same at APL's premises.

#### Conclusions

We have reviewed the Sustainability Report of APL. Based on our review and procedures performed as per the scope of work, nothing has come to our attention that causes us not to believe that the sustainability data and information presented in the Report is appropriately stated.

We have provided our observation to the company in a separate management letter. These, do not, however, affect our conclusions regarding the Report

#### As per AA1000AS 2008 Principles:

**Principle of Inclusivity:** APL has a stakeholder engagement process in place. The report fairly communicates the frequency and the mode of engagement with stakeholders - both internal and external, highlighting the outcomes of interactions and the Company's responses towards the same. The company may include disclosures on the actions taken within the organization along with the progress made for addressing the concerns and expectations of its stakeholders.

**Principle of Materiality:** The materiality determination process takes into consideration the principles of reporting as per the GRI standards and the guiding principles of the <IR> framework. APL periodically reviews its materiality process, prioritizing its sustainability focus areas. The Company may now plan to extend the materiality determination process to include its supply chain/ immediate suppliers.

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## KPMG

**Principle of Responsiveness:** APL has processes and systems in place to achieve the responses it commits to its stakeholders. The Report may now disclose sustainability roadmap for APL highlighting progress on the sustainability goals and targets the Company has taken up internally to its stakeholders.

#### Reliability

APL monitors the sustainability performance data across all its operations mentioned in the boundary of sustainability report. The monitoring mechanism should be strengthened with respect to the sustainability disclosures especially on emissions, effluents and waste, learning and development and workforce related indicators. APL should consider implementing a standardized approach and methodology for measuring, monitoring and reporting sustainability disclosures.

#### Independence

The assurance was conducted by a multidisciplinary team including professionals with suitable skills and experience in auditing environmental, social and economic information in line with the requirements of the assurance standards. Our work was performed in conformance to the requirements of the IFAC Code of Ethics for Professional Accountants, which requires, among other requirements, that the members of the assurance team (practitioners) be independent of the assurance client, in relation to the scope of this assurance engagement, including not being involved in writing the Report. The Code also includes detailed requirements for practitioners regarding integrity, objectivity, professional competence and due care, confidentiality and professional behavior. KPMG has systems and processes in place to monitor compliance with the Code and to prevent conflicts regarding independence. The firm applies International Standard on Quality Control (ISQC) 1 and the practitioner complies with the applicable independence and other ethical requirements of the International Ethics Standards Board for Accountants (IESBA) code.

#### Responsibilities & Restriction on use of our report

APL is responsible for developing the Report contents. APL is also responsible for identification of material sustainability topics, establishing and maintaining appropriate performance management and internal control systems and derivation of performance data reported. This statement is made solely to the Management of APL in accordance with the terms of our engagement and as per scope of assurance. Our work has been undertaken so that we might state to APL those matters for which we have been engaged to state in this statement and for no other purpose. To the fullest extent permitted by law, we do not accept or assume responsibility to anyone other than APL for our work, for this report, or for the conclusions expressed in this independent assurance statement. The assurance engagement is based on the assumption that the data and information provided to us is complete and true. We expressly disclaim any liability or co-responsibility for any decision a person or entity would make based on this assurance statement.

Jan-

Prathmesh Raichura Executive Director KPMG in India 27 November 2019



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#### **GRI Content Index**

GRI	Brief Description	Section of the report	Page No. of the Report	Mapping with SDG	Section of SDG	Mapping with IFC Performance Standards	Mapping with UN Global Compact principles
102-1	Name of the Organisation		Cover Page	-	-	-	-
102-2	Description of Organisation activites	Cover Page	About the Report	-	-	-	-
102-3	Location of headquarters	Company Overview	4	-	-	-	-
102-4	Location of operations	Company Overview	5	-	-	-	-
102-5	Ownership and legal form	Refer AR Page No. 45		-	-	-	-
102-6 102-7	Geographic location of the service	Company Overview Financial Capital	5 24-27	-	-	-	-
102-7	Scale of the organisation Information on employees and other	Human Capital	36-41	8	- Employment	-	-
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102-9 103-1	Supply chain Explanation of the material topic and its boundary	Social and Relationship Capital Materiality Assessment	33 18-20	-	-	-	-
102-10	Significant changes to the organisation and its supply chain	Demerger APML to ApMul     Changes in BOD	26, 10	-	-	-	-
102-11		To be Incorporated		-	-	-	-
102-12	External initiatives	Social and Relationship Capital	33-34	-	-	-	-
	Membership of associations	Social and Relationship Capital	33	-	-	-	-
	Statement from senior decision-maker	CEO Statement	6-8	-	-	-	-
102-15	Key impacts, risks, and opportunities Values, principles, standards, and norms of	Risk and Mitigation Measures About Adani Group	15 Inside	16	Ethical and Lawful	-	-
102-10	behavior	About Adam Group	Cover	10	Behaviour	-	-
102-17	Mechanisms for advice and concerns about ethics	Governance	12-13	16	Ethical and Lawful Behaviour		
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	Chair of the highest governance body	Governance	10-11	-	-	-	-
102-24	Nominating and selecting the highest governance body	Governance	10-11	5, 16	5 - Women in leadership, 16 - Inclusive decision making	-	-
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102-26	Role of highest governance body in setting purpose, values, and strategy	Governance	10-11	-	-	-	-
102-27	Collective knowledge of highest governance body	Governance	11	4	Education for sustainable development	-	-
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GRI	Brief Description	Section of the report	Page No. of the Report	Mapping with SDG	Section of SDG	Mapping with IFC Performance Standards	Mapping with UN Global Compact principles
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102-46	financial statements  Defining report content and topic boundaries	About the Report	1	-	-	-	-
102-47	List of material topics	Materiality Assessment	18-19	-	-	-	-
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102-53	Contact point for questions regarding the report	CSO Statement	8	-	-	-	-
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103-2	The management approach and its components	Governance and Executive Message	6-8	1, 5, 8, 16	1, 5, 8 - Economic inlusion, 16 - Grievance mechanism		
103-3	Evaluation of the management approach	Governance and Executive Message	6-8			PS-1 to PS-8	
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203-1	Infrastructure investments and services supported	Financial Capital	24-27	2, 5, 7, 9, 11	2, 5, 7, 9, 11 - Infrastructure investments	PS-1 to PS-8	
203-2	Significant indirect economic impacts  Proportion of spending on local suppliers	Financial Capital  Social and Relationship Capital	24-27	1, 2, 3, 8, 10, 17	1 - Availability of products and services for those on low incomes, Economic development in areas of high poverty 2, 8 - Changing the productivity of organisations, sectors, or the whole economy 3 - Access to medicines 8 - Indirect impact on job creation, jobs supported in supply chain 10 - Economic developments in areas of high poverty 10, 17 - Foreign Direct Investment (FDI) Procurement	PS-1 to PS-8	
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302-3	Energy intensity	Manufactured Capital	29	7, 8, 12	7, 8, 12 - Energy efficiency	PS-3	-
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303-2	Water sources significantly affected by withdrawal of water	Natural Capital	47	6	Sustainable water withdrawals	PS-3	Principle 8

GRI	Brief Description	Section of the report	Page No. of the Report	Mapping with SDG	Section of SDG	Mapping with IFC Performance Standards	Mapping with UN Global Compact principles
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304-1	Operational sites owned, leased, managed in, or adjacent to, protected areas and areas of high biodiversity value outside protected areas	Natural Capital	49-51	6, 14, 15	6 - Water related ecosystems and biodiversity 14 - Marine biodiversity 15 - Mountain ecosytems, natural habitat degredation, terrestrial and inland fresh water ecosystems	PS-5 to PS-8	Principle 7-9
304-2	Significant impacts of activities, products, and services on biodiversity	Natural Capital	49-51	6, 14, 15	6 - Water related ecosystems and biodiversity 14 - Marine biodiversity 15 - Mountain ecosytems, natural habitat degredation, terrestrial and inland fresh water ecosystems	PS-5 to PS-8	Principle 7-9
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305-4	GHG emissions intensity	Natural Capital	49	13, 14, 15	13 - GHG emissions 14 - Ocean acidification 15 - Forest degradation	PS-3, PS-4	
305-5	Reduction of GHG emissions	Natural Capital	49-50	13, 14, 15	13 - GHG emissions 14 - Ocean acidification 15 - Forest degradation	PS-3, PS-4	
305-6	Emissions of ozone-depleting substances (ODS)	Natural Capital	49-50	3, 12, 13	3, 12 - Air quality 13 - GHG emissions	PS-3, PS-4	
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GRI	Brief Description	Section of the report	Page No. of the Report	Mapping with SDG	Section of SDG	Mapping with IFC Performance Standards	Mapping with UN Global Compact principles
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403-2	Types of injury and rates of injury, occupational diseases, lost days, absenteeism, and number of work-related fatalities	Human Capital	40	3, 8	3, 8 - Occupational health and safety	PS-2	
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407-1	Operations and suppliers in which the right to freedom of association and collective bargaining may be at risk	Human and Social & Relationship Capital	32 , 34, 36	8	Freedom of association and collective bargaining	PS-2	Principle 3
408-1	Operations and suppliers at significant risk for incidents of child labour	Materiality Assessment	19	8,16	8, 16 - Abolition of child labour	PS-2, PS-3	Principle 5
409-1	Operations and suppliers at significant risk for incidents of forced or compulsory labour	Materiality Assessment	18-19	8	8 - Elimination of forced or compulsory labour	PS-2, PS-3	Principle 4
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