



Transforming *Future* for a *Sustainable* Tomorrow

ICICI Securities Virtual ESG Conference
25th August 2021

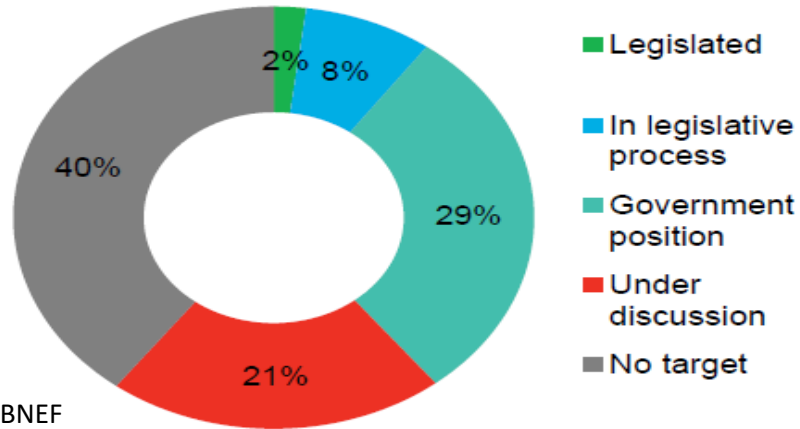
Lighting up Lives!

The Global ESG Context



The World is coming together: BUT IS IT ENOUGH?

Carbon neutrality targets now covers 60% of the world's emissions



Source: BNEF



US rejoins the Paris Agreement

EU ministers to agree to make climate neutrality by 2050 binding

South Korea beefs up Climate goal amid mounting global pressure

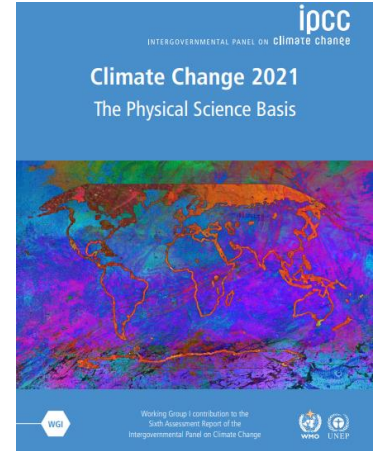
Japan pledges net-zero emissions by 2050 without clear roadmap

China vows Carbon Neutrality by 2060 in major climate pledge

IPCC report - 'Code red' for human driven global warming

First instalment of the Intergovernmental Panel on Climate Change's (IPCC) **Sixth Assessment Report** was released on 9th Aug

Approved by **195 member governments**



The report outlines that climate change is:

- Intensifying the water cycle
- Affecting rainfall patterns
- Coastal areas will see **continued sea level rise**
- Amplify **permafrost thawing**
- Affect **ocean ecosystems**
- Amplified **climate change impact in cities**

Unless there are immediate, rapid & large-scale reductions in greenhouse gas emissions, limiting warming to close to 1.5°C or even 2°C will be beyond reach.

India leading the climate change agenda



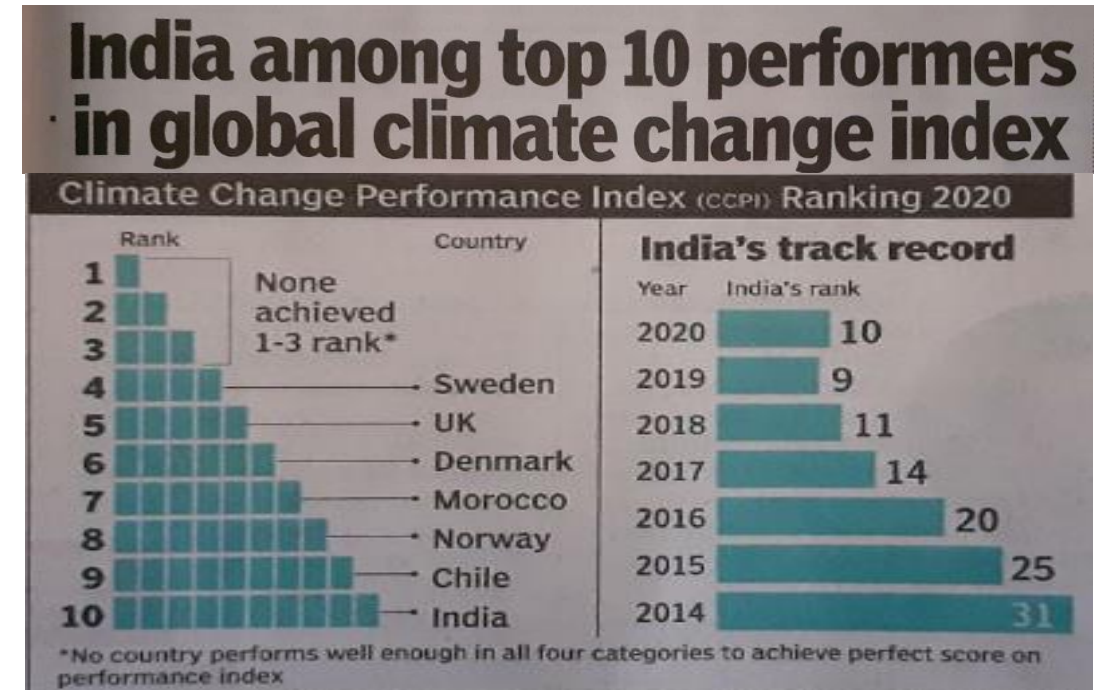
INDIA

Accounts for:

- **17.7%** of the world's population
- **7%** of the world's greenhouse gas emissions.

Nationally Determined Contribution (NDCs)

- **India, only country** among **G20 nations** on **track** to achieve targets under the Paris Agreement
- India has **3 quantitative goals for 2030**;
 - Reducing emission intensity of GDP by 33-35%;
 - Achieving 40% cumulative electric power installed capacity from non-fossil fuel-based resources;
 - Creating carbon sink of 2.5 to 3 billion tonnes of CO₂ equivalent through forest and tree cover.



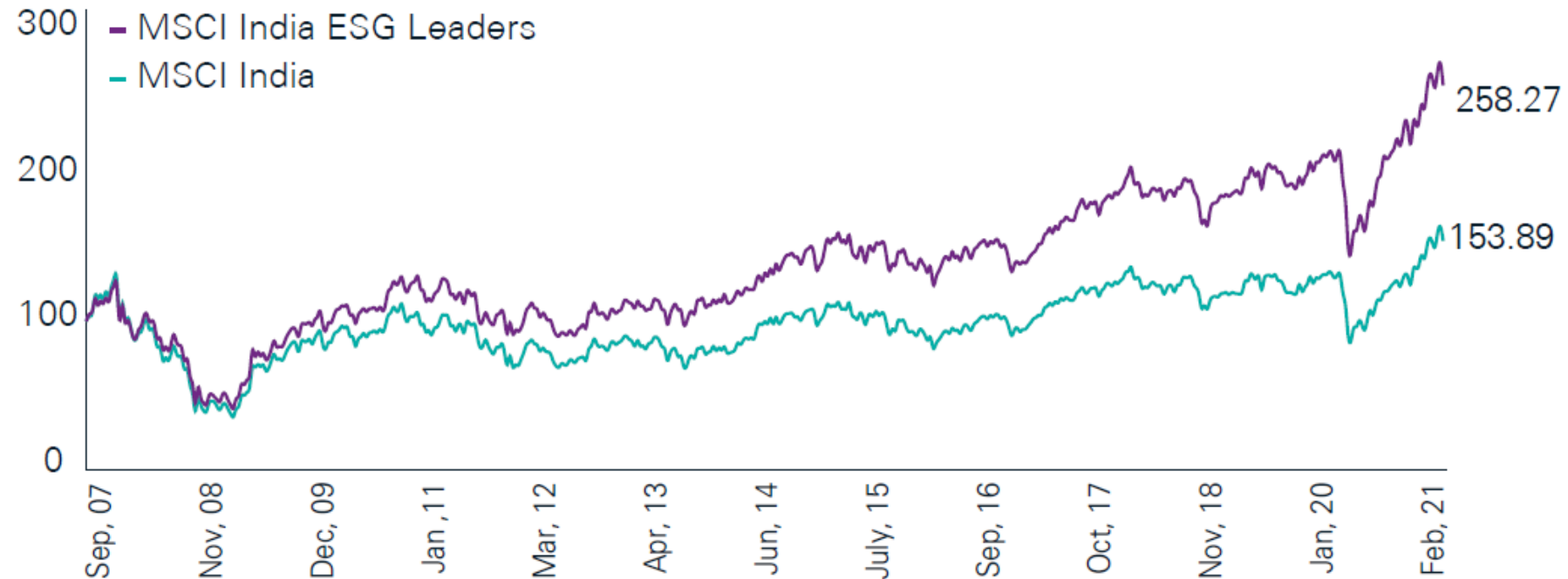
(Source: Nov 2020 Climate Transparency Report)

India to continue push towards Renewable Power growth to meet the Paris Agreement targets

ESG re-defining strategy for industry leaders

ESG: emergence of a new world order

- ESG is **value protective** and now a commercial issue in addition to regulatory and social license to operate concerns
- Capital markets, regulators & investors are **demanding greater management and disclosures** of ESG issues
- Driving value creation- growing **understanding of strong performance across non-financial indicators** being correlated to strong financial performance.
- ESG must **converge with strategy** and be stakeholder driven



MSCI India ESG leaders Index performance- Cumulative index performance of gross returns, USD (September 2007- February 2021)

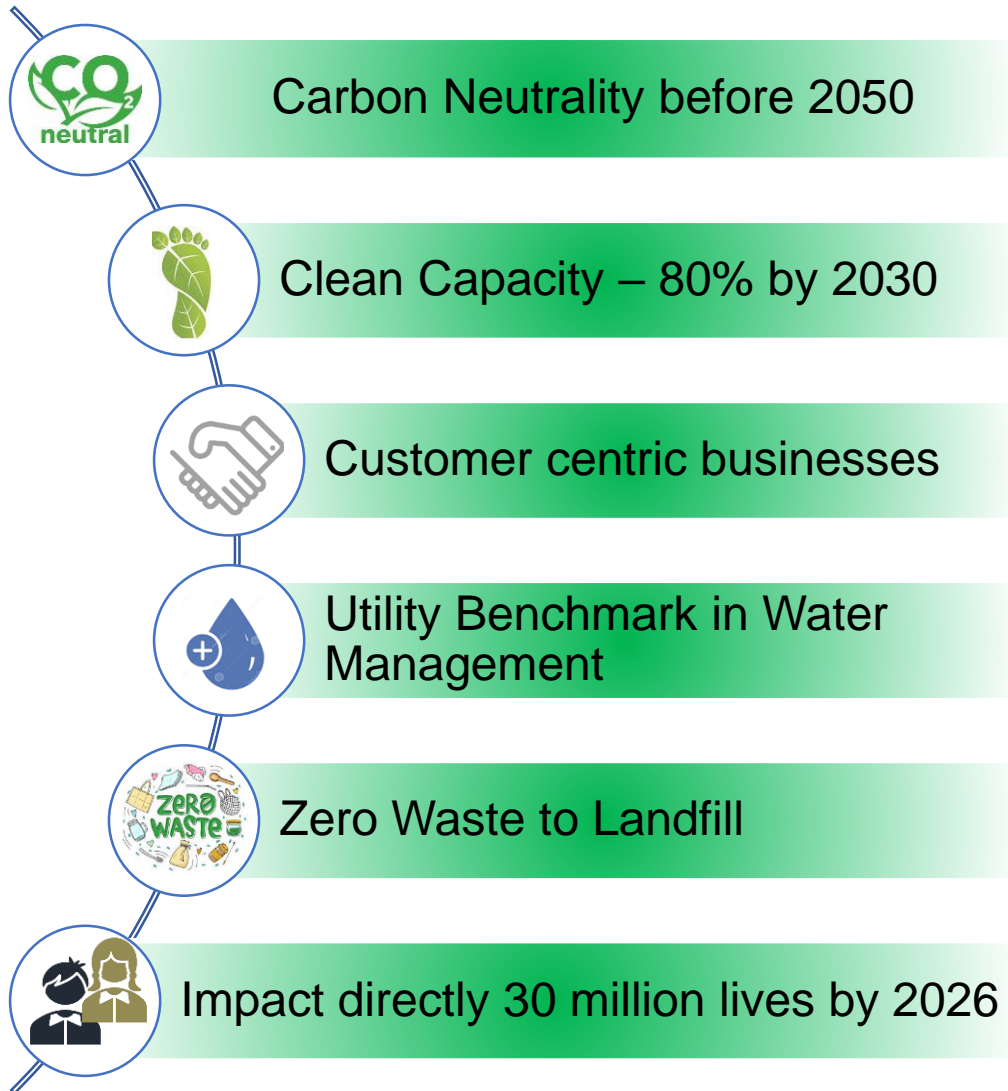
The above graph shows that MSCI India ESG leaders have consistently performed better than their counterparts over the past decade.

Source- KPMG ESG value realization report 2021.



Our journey towards a Sustainable Tomorrow

Tata Power ESG Aspiration



- **No new coal-based capacity**; phase out by 2048 with the closure of contractual obligations (PPA)
- Pursue 2 GW of solar and hybrid capacities annually to grow from 4.2 GW to **15 GW by 2025** & >25 GW by FY 30
- Promote mass adoption of rooftop solar & solar pumps, microgrids, & home automation
- Lead EV charging infrastructure to spur ecosystem
- Adopt practices to become **100% water neutral before 2035** across businesses
- New age tech & policies to target 100% water positivity by 2050
- Benchmark waste & fly-ash management (100% utilization)
- **100% Zero waste to landfill before 2035**
- Train 10,000 trainers to deliver blended training to 4 lac+ youth
- Build capabilities of 25,000+SHGs
- **30% of outreach to affirmative action-based disadvantaged groups**

Sustainability leadership through UNSDGs

Business SDG

Decarbonization



To become
CARBON NEUTRAL by
2050

Thought Leadership



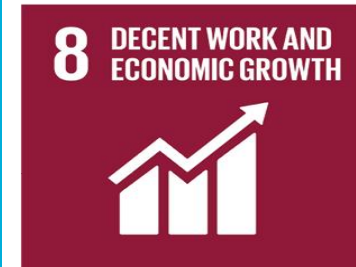
Become a **GLOBAL
SUSTAINABILITY
BENCHMARK**

Circular Economy



Move towards **WATER
NEUTRALITY/POSITIVITY & ZERO
WASTE TO LANDFILL**

CSR SDG



Business-wise targets have been set for the **prioritized SDGs** to create a **Roadmap**

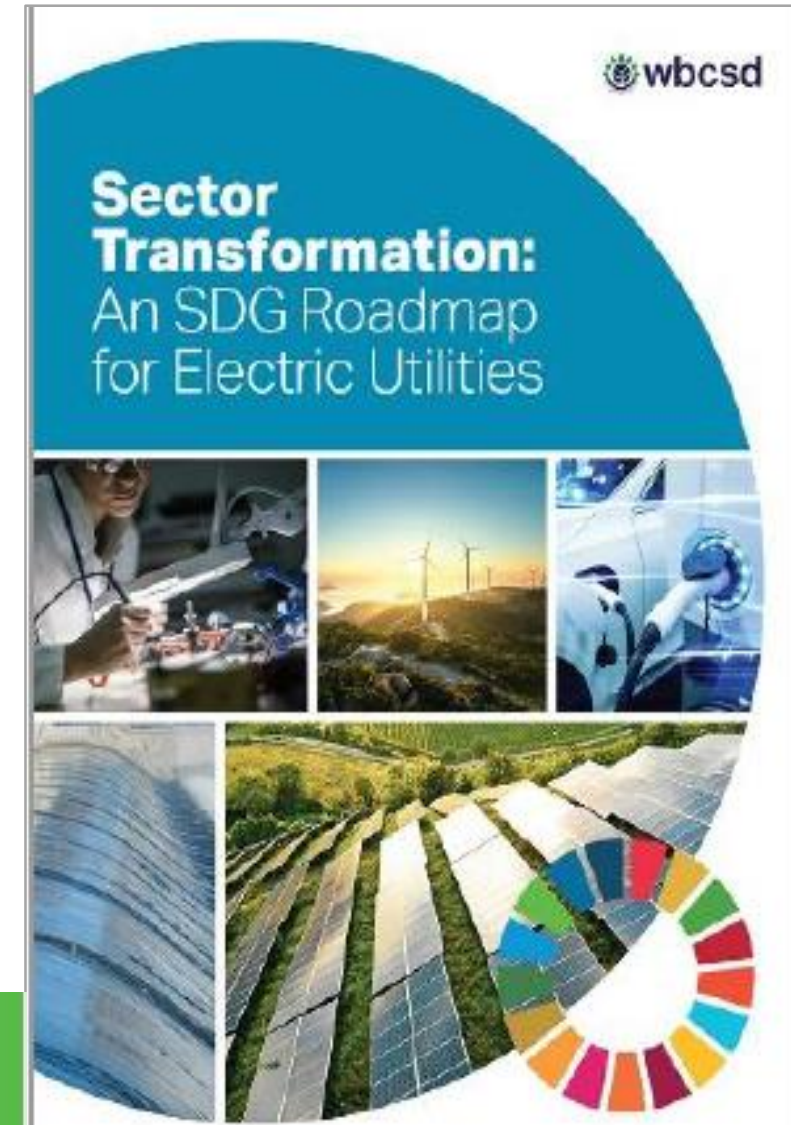
Tata Power

Setting the global agenda in Energy utility sector

Sector Transformation: An SDG Roadmap for Electric Utilities

- **Published on 15th Mar 2021 - First SDG Roadmap** for Power Utilities published by **WBCSD**
- Tata Power, the **only Indian utility**, to co-create the roadmap with 10 other global power companies over 18 months.
- **Amplification plan-** planned webinar with other participating companies (Interested – ENEL, Celsia, CLP, Kansai Electric Power)

Priority SDGs for Electric Utilities sector



Tata Power Commits to Science based target initiative (SBTi)



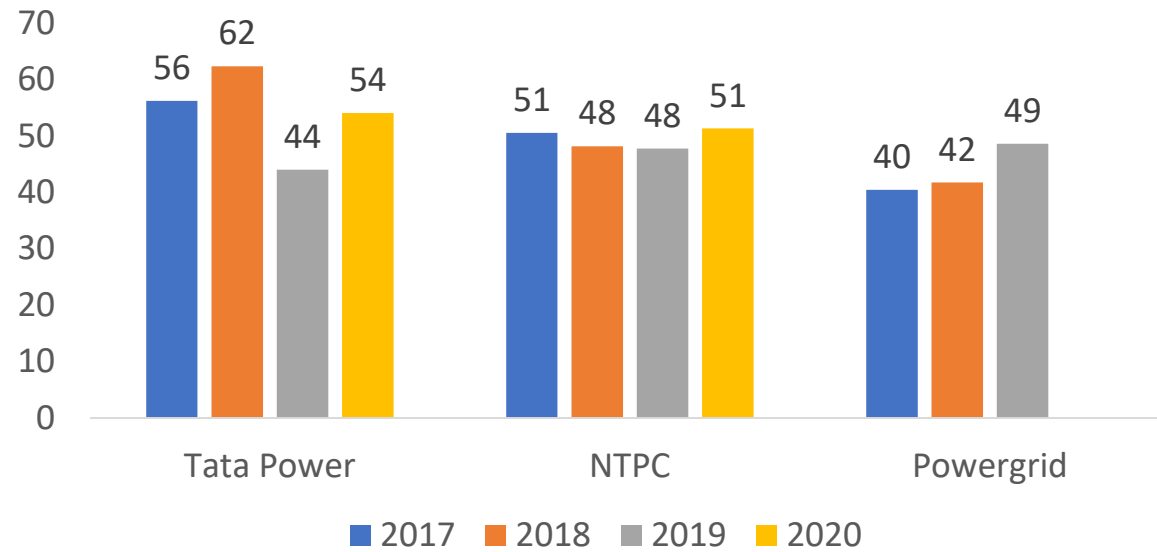
Currently evaluating different scenarios aligned to below 2 degrees celsius and fixing reduction targets and mid-century target year basis, the Sectoral Decarbonization Approach (SDA)



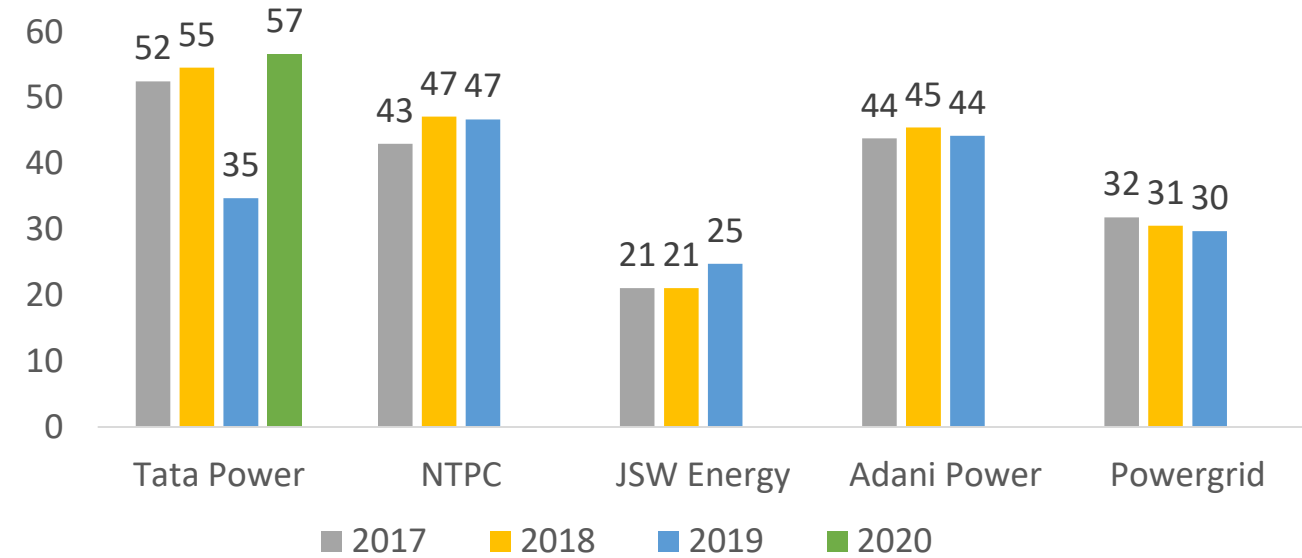
Benchmark in utility sector

Tata Power competitively placed in ESG Ratings

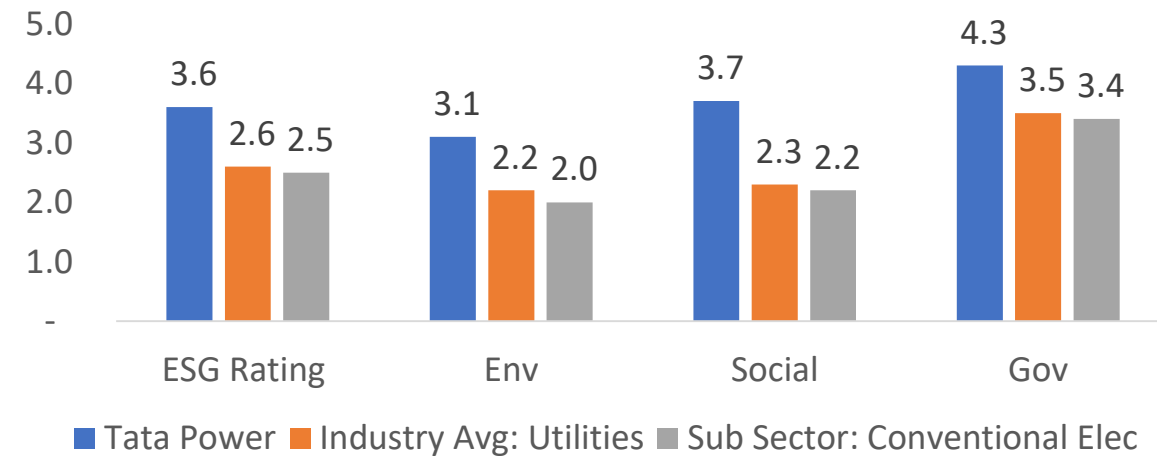
ESG Score-Reuters



ESG Score-Bloomberg



FTSE Global Comparison

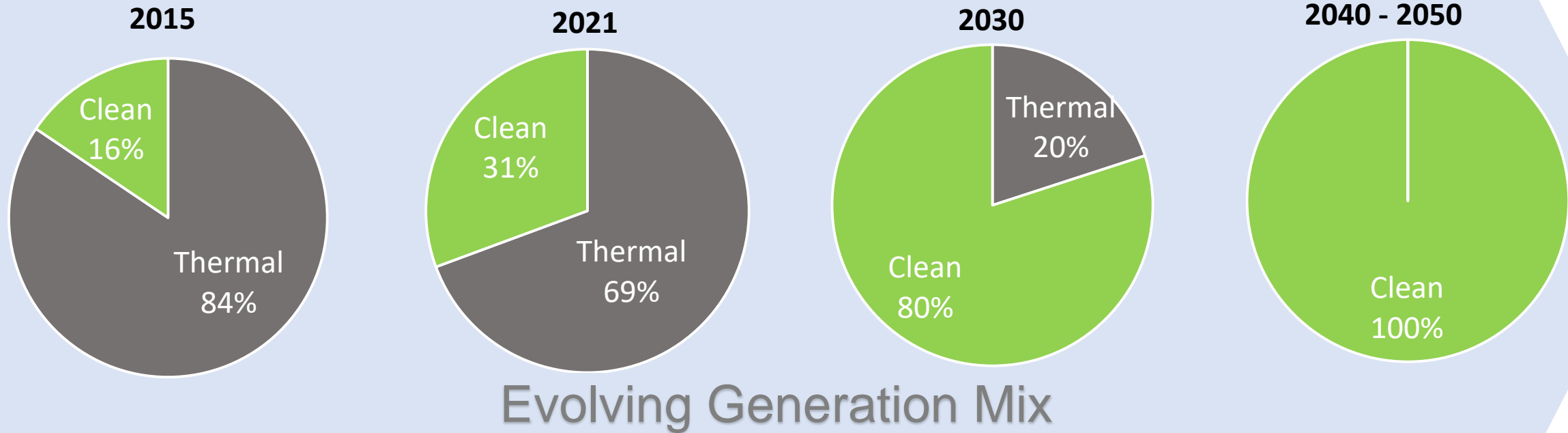


ESG Rating	2020	2019
CDP - Climate Change	C ↑	D
CDP - Water Security	C ↑	F (non- disclosure)
MSCI Rating	BB	BB
FTSE Russell	3.6 ↑	3.5

An aerial photograph showing several large, rectangular solar panels installed on a lush green grassy field. The panels are arranged in rows, with white grid lines visible on their blue surfaces. The perspective is from above, looking down at the panels and the surrounding vegetation.

Redrawing our Strategy with Sustainability at the core

Lead Utility transition to Clean Energy



- Largely Coal based capacity expansion to meet growing energy demand in India

- Major capacity expansion of green field solar capacity
- Inorganic growth through acquisition of Welspun portfolio

- Phase-out of 930 MW of Trombay coal-based generation
- 2 GW p.a. renewable growth plans plus M&As

- Phase-out of all coal-based generation
- ***Carbon Neutrality before 2050***

Involving stakeholders in Carbon Mitigation journey

Carbon Mitigation Framework to include the CO2 savings across stakeholder groups

SUPPLIERS



- Encourage **ESG disclosure** for Tier-I suppliers
- **Responsible Supply Chain** management – ethics, environment, human rights, safety

BUSINESS



- **Stringent targets for Carbon Intensity reduction** (5-7%)
- Focus on **viable technologies**
 - ✓ Storage technology (hydrogen)
 - ✓ Carbon capture/mitigation

EMPLOYEES



- **Zero emissions campus** - EV for in-campus
- **Mobile app** to reduce travel emissions
- **Paperless office**

CUSTOMERS



- **Quantification of Carbon Savings** (DSM, ESCO, New Businesses)
- **Green Power Supply** for customers
- **Digitalize customer processes** (paperless billing, Chatbot)

COMMUNITY



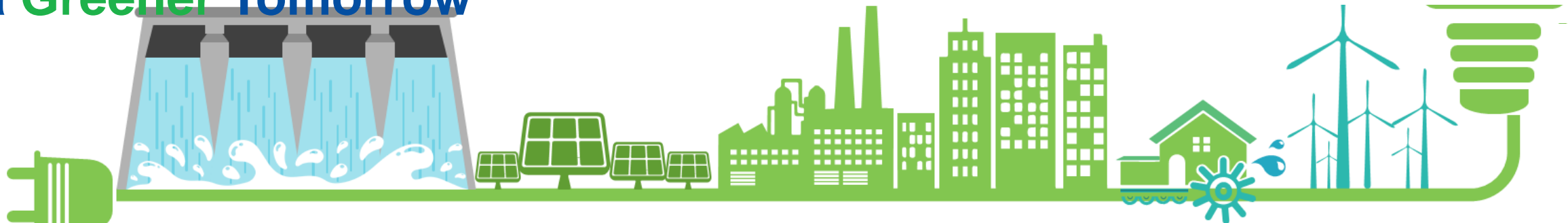
- **Scaling up Club Enerji** as a Brand property
- **Quantification of volunteering** impact
- **E-Platform to increase afforestation** numbers manifold

Bringing together Smart, Green choices for retail customers #DoGreen

EZ Home | Creating Smart Homes of tomorrow
EZ Charge | Empowering Smart mobility solutions of tomorrow
Smart Meter | Creating energy Management solutions
Green Power | Enabling Sustainable energy consumption



Do Little things Today, to make a Greener Tomorrow



Microgrids

TP Renewable Microgrid Ltd.
launched on 4th Nov 19



Tata Power has already installed 161
Micro-grid sites in UP & Bihar

Another 62 sites for microgrid are
in pipeline.

10,000
Microgrids by FY27

Solar Pumps

Transition from diesel to solar
powered agricultural supply



Solar power pumps supports field
irrigation and supplying potable water
for communities, while drawing water
from underground multiple water
sources

Targeted installation of ~2.5 lakh
pumps in FY26

Rooftop Solar

Installed 600+ MW of Rooftop capacity



Tata Power Solar being ranked # 1 Solar Roof
player for last seven years by Bridge to India

30,000+ customers across 100 cities

EV Charging

Installed 600+ public EV charging points in 102 cities; 3000+ home



EV Charging, driving innovative and seamless Electric Vehicle (EV) charging experiences for its customers across Home, Offices, Malls, Hotels, Retail Outlets and places of public access, enabling green

Estimated 2 million tonnes CO2 savings per year by FY25

Home Automation

Smart solutions for residential customers to monitor and control devices remotely and enable energy and cost savings

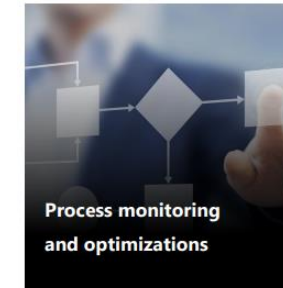


Home automation solutions, to drive energy efficiency, through innovative home automation solutions for all consumers, enabling the convenient and remote use of home appliances

IoT solution to operate, schedule, monitor appliances remotely

ESCO

360-degree smart energy solutions for large commercial & Industrial clients



Process monitoring and optimizations



Office space energy management with automation



Process monitoring and optimizations



Energy management solutions

Energy Services encouraging clients to embrace digitalisation and monitor energy savings to substantially reduce carbon footprint and lower the energy consumption.

Integrated Energy as a Service (EaaS) offerings

Empowering customers – Technology & Innovation

~ 3 million customer base in FY' 20 has already grown to 12.5 million customer base in FY'21

Smart Grid Technologies

Smart Grid Technologies such as Smart Meters, Sensors, IOTs, grid-scale storage



FIRST Distribution Utility in Mumbai to initiate Smart metering for its consumers with more than 7000 smart meters installation already so far for its customers.

Promoting energy savings and displacing emissions

Green Power Supply

Supporting customers to become RE100 compliant by offering 100% green



Pioneered this concept for

Maharashtra, enabling customers to source 100% RE power at marginal additional tariff of ₹0.66/kWh on regular tariff

Green Energy certificates to customers to support Net Zero effort

Clean Energy Incubation Centre

Joint initiative of Tata Power, Tata Trusts & GoI

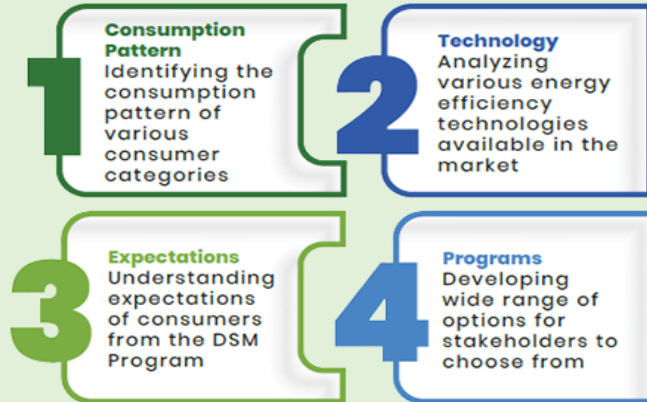


India's **first-of-its kind Clean Energy lab** for start-ups, entrepreneurs and innovators offering complete “lab to market” incubation support to clean energy enterprises

Net-Zero Framework Assessment by RISE for avoiding emissions by 2030

Driving customer centric climate initiatives

Demand Side Management (DSM) & Energy efficiency programs



16554 MWH saved through DSM in 3 years; ~25000 appliances exchanged



Savings of ~4000 MWh for customers and shifted load of 2 MW in FY 21

Digitalization – Towards 100% paperless processes



70% customers use digital mode of payment



45000+ NACH consumers making e-payment

GO DIGI LUCKY DRAW

Zone	Winners	Consumer name	Consumer Account No.
North Western	First Prize	Arjun Kumar & Ruchi Anand Kumar	900000000000
	Second Prize	Chaitanya Kumar & Ruchi Anand Kumar	900000000000
	Third Prize	Chaitanya Kumar & Ruchi Anand Kumar	900000000000
West Bengal	First Prize	Chaitanya Kumar & Ruchi Anand Kumar	900000000000
	Second Prize	Chaitanya Kumar & Ruchi Anand Kumar	900000000000
	Third Prize	Chaitanya Kumar & Ruchi Anand Kumar	900000000000
North	First Prize	Chaitanya Kumar & Ruchi Anand Kumar	900000000000
	Second Prize	Chaitanya Kumar & Ruchi Anand Kumar	900000000000
	Third Prize	Chaitanya Kumar & Ruchi Anand Kumar	900000000000
South	First Prize	Chaitanya Kumar & Ruchi Anand Kumar	900000000000
	Second Prize	Chaitanya Kumar & Ruchi Anand Kumar	900000000000
	Third Prize	Chaitanya Kumar & Ruchi Anand Kumar	900000000000
East Bengal	First Prize	Chaitanya Kumar & Ruchi Anand Kumar	900000000000
	Second Prize	Chaitanya Kumar & Ruchi Anand Kumar	900000000000
	Third Prize	Chaitanya Kumar & Ruchi Anand Kumar	900000000000
City South	First Prize	Chaitanya Kumar & Ruchi Anand Kumar	900000000000
	Second Prize	Chaitanya Kumar & Ruchi Anand Kumar	900000000000
	Third Prize	Chaitanya Kumar & Ruchi Anand Kumar	900000000000

50 tonnes of CO2 avoided per annum

Green Power solutions



Developing 225 MW hybrid renewables



Solar Powered call centre at Powai!



World's largest solar powered cricket stadium at Brabourne Stadium, Mumbai

Ecosystem Conservation efforts

TREE MITTRA:

Large scale afforestation drive



Over 3.5 Million trees planted till date mitigating ~70k tCO₂e/annum. Indigenous species selected with MoEFCC to preserve ecosystems & improve survival rate. e-Platform under development to enable pledging for tree plantation during COVID19

Western Ghats Biodiversity Hotspot Conservation



- 50 years of Mahseer Conservation efforts
- 300 Fishery Scientists Trained
- 5 Endemic and endangered species of Orchids selected for multiplication
- 5 National Workshops held for Knowledge Exchange

Grassland Ecosystem Conservation



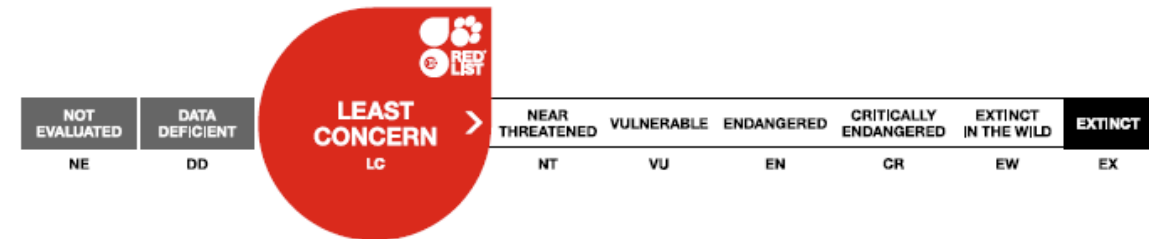
- Impact of grassland on physical parameters affecting solar generation
- Assessment of seasonal biodiversity (Flora & Fauna)
- Replicability across growing solar footprint
- Identification of IUCN critically endangered and endangered species and conservation efforts

Celebrating 50 years of Mahseer conservation

Tata Power is probably the only company that has helped a fish species bounce back from extinction threats through judicious conservation efforts for 5 decades. Blue-finned mahseer is no more under the endangered IUCN red list category.

Tor khudree, Black Mahseer

Assessment by: de Alwis Goonatilake, S., Fernando, M. & Kotagama, O.



Blue-Fin Is Out Of The Red

Great News On Our 50th Anniversary Of Mahseer Conservation

Social Impact envisaged

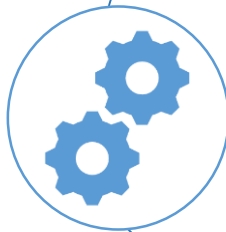
 Impact **30** million lives

Outcomes over FY21 to 26



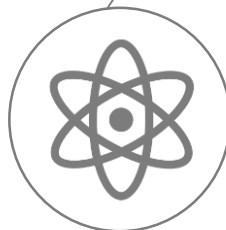
Education & Employability

1. Access to Govt. Schemes - coverage of **60% HHs** of addressable population in target regions
2. Train **10,000 Trainers/Community Leaders** to deliver blended learning through Govt. schools/panchayats
3. Benefit **4 Lakh+ youth** – directly & indirectly



Entrepreneurship & Empowerment

1. Build capacities of **25,000 SHGs** & co-develop 10 unique sustainable/ recycled products, services
2. Facilitate **scalability & regular business pipeline** for SHGs

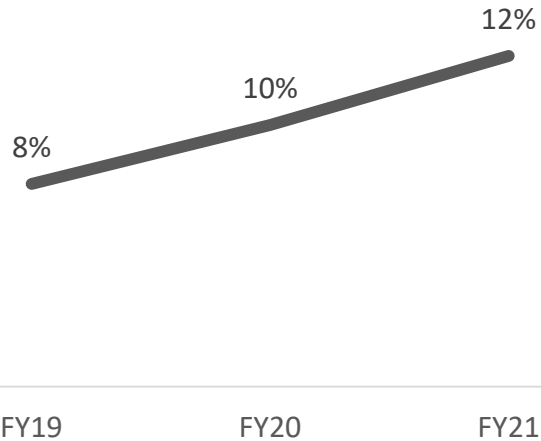


Culture & Stakeholders

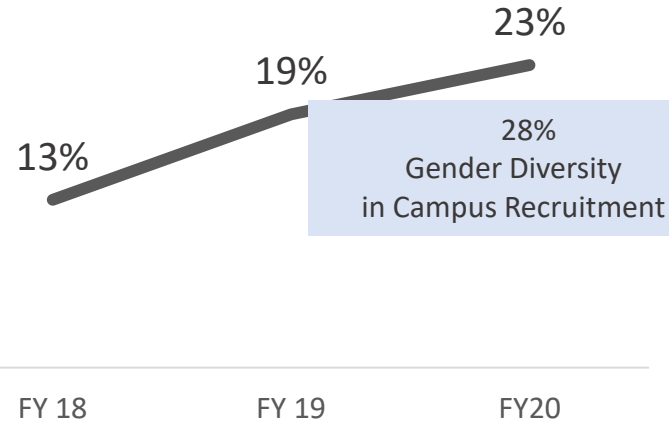
1. **Tata Affirmative Action** focus (SC, ST, differently abled, other disadvantaged groups – 30% within total outreach)
2. Gender diversity & Inclusion
3. 1 lakh+ **volunteering hours p.a.** across stakeholder groups
4. Safety as a core value

Promoting Gender Diversity at Tata Power

Gender Diversity YoY



Women Officers as % of New Officers Joined



Enabling Framework

• Policies

- Special sabbatical, Extended maternity leave, Adoption, Surrogacy leave
- Flexible timings post maternity
- Performance rating protection during maternity
- Childcare facilities: Creche & Nanny
- Spouse & Ward Recruitment Policy

• Development Programs

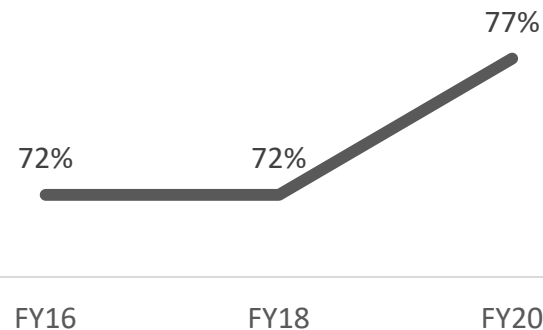
- Women's Mentoring Program
- Returning Mother's Coaching Program
- Tata group programs for women in middle and senior management
- Tata SCIP (Second Career Innings Program)

• Safety & Care

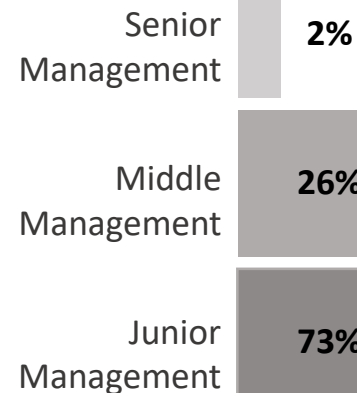
- Special travel provisions for women employees
- Self-defence programs
- Sensitization sessions on POSH
- Gift hampers to celebrate motherhood

Tata Power FY25 outlook: Improve overall gender diversity ratio to 18%

Engagement Score of Women Officers



Women in

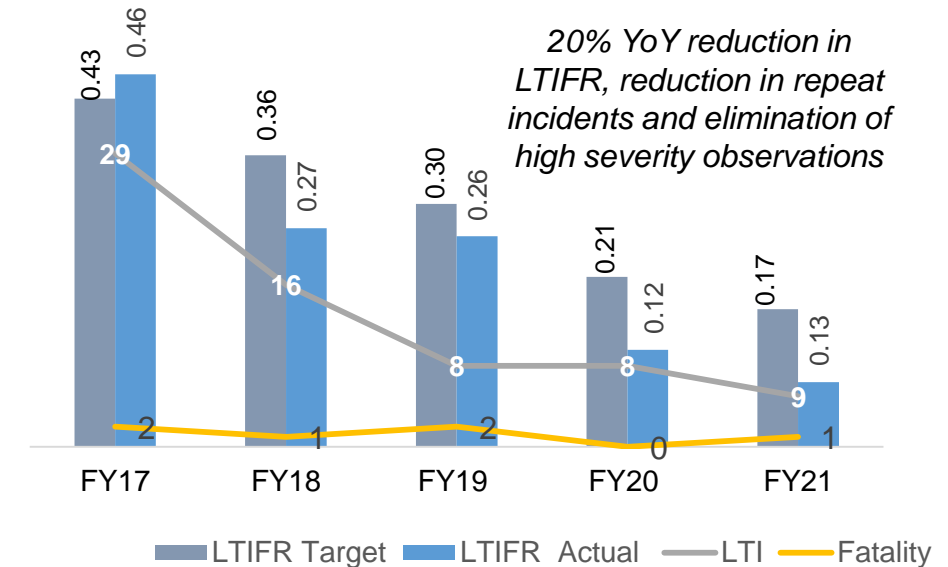


Tata Power's focus on Safety

Safety Aspiration: To be a leader in Safe Work Practices in Global Power and Energy Business

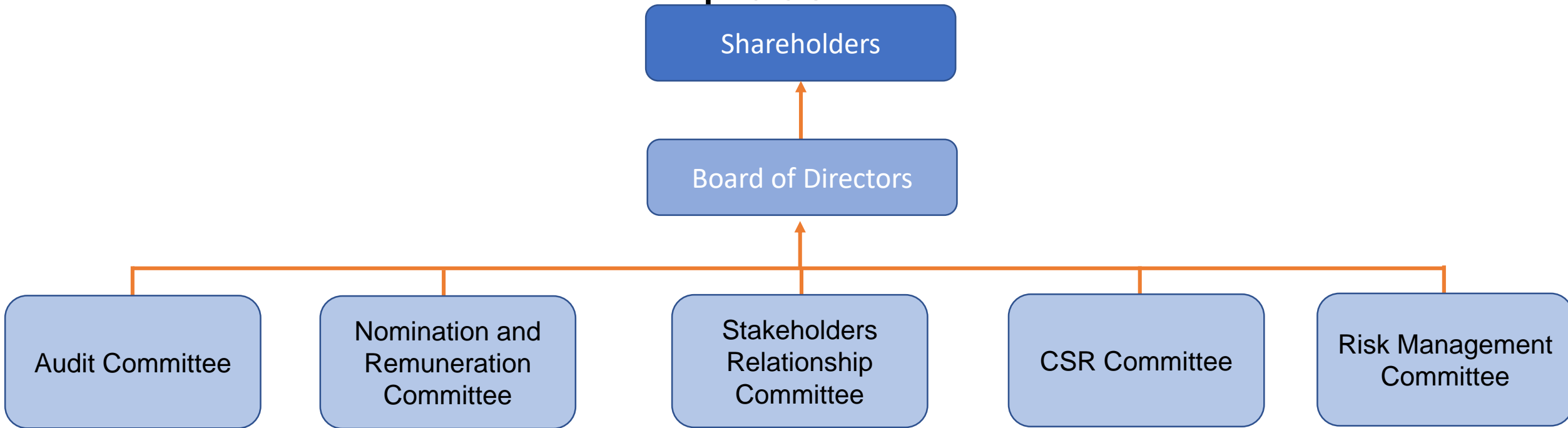


Improving Lost Time Injury Frequency Rate (LTIFR)



“Safety is a core value over which no business objective can have higher priority”

Robust Governance Structure in place



GOVERNANCE POLICIES

- Tata Code of Conduct
- Code of Conduct for Independent Directors
- Code of Conduct for Non-Executive Directors
- Related Party Transactions Policy, Framework & Guidelines
- Whistle Blower Policy & Vigil Mechanism
- Risk Management Policy – ISO certified process
- CSR Policy
- Tata Code of Conduct for Insider Trading and Corporate Disclosure Policy
- Dividend Policy
- Policy for Determining Material Subsidiaries
- Policy for determining Materiality for Disclosures
- Remuneration Policy for Directors, Key Managerial Personnel and Other Employees
- Charters of various Board appointed Committees

Best in class risk management process



ISO 22301:2012- Tata Power has been awarded **ISO 22301:2012** for Societal Security and Business Continuity Management System from 2015 till date from **British Standards Institution (BSI)**



Thank You!

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