Transforming *Future* for a *Sustainable* Tomorrow

Edelweiss ESG CXO e-Series
25<sup>th</sup> March 2021
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The Global ESG Context
Global Race for Net Zero Emissions

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

Source: BNEF

India - only country among the G20 nations which is on track to achieve targets under the Paris Agreement

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
India leading the climate change agenda

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 among top 10 performers in global climate change index

India to continue push towards Renewable Power growth to meet the Paris Agreement targets
Tata Power’s ESG Footprint
Tata Power competitively placed in ESG Ratings

**ESG Score-Reuters**

<table>
<thead>
<tr>
<th>Year</th>
<th>Tata Power</th>
<th>NTPC</th>
<th>Powergrid</th>
</tr>
</thead>
<tbody>
<tr>
<td>2017</td>
<td>56</td>
<td>51</td>
<td>40</td>
</tr>
<tr>
<td>2018</td>
<td>62</td>
<td>48</td>
<td>42</td>
</tr>
<tr>
<td>2019</td>
<td>54</td>
<td>48</td>
<td>49</td>
</tr>
<tr>
<td>2020</td>
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</table>

**ESG Score-Bloomberg**

<table>
<thead>
<tr>
<th>Year</th>
<th>Tata Power</th>
<th>NTPC</th>
<th>JSW Energy</th>
<th>Adani Power</th>
<th>Powergrid</th>
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<tbody>
<tr>
<td>2017</td>
<td>52</td>
<td>43</td>
<td>21</td>
<td>44</td>
<td>32</td>
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<tr>
<td>2018</td>
<td>55</td>
<td>47</td>
<td>25</td>
<td>45</td>
<td>31</td>
</tr>
<tr>
<td>2019</td>
<td>57</td>
<td>44</td>
<td></td>
<td>44</td>
<td>30</td>
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<tr>
<td>2020</td>
<td></td>
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</tbody>
</table>

**FTSE Global Comparison**

<table>
<thead>
<tr>
<th>ESG Rating</th>
<th>Env</th>
<th>Social</th>
<th>Gov</th>
</tr>
</thead>
<tbody>
<tr>
<td>2020</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ESG Rating</td>
<td>3.6</td>
<td>2.6</td>
<td>2.5</td>
</tr>
<tr>
<td>Env</td>
<td>3.1</td>
<td>2.2</td>
<td>2.0</td>
</tr>
<tr>
<td>Social</td>
<td>3.7</td>
<td>2.3</td>
<td>2.2</td>
</tr>
<tr>
<td>Gov</td>
<td>4.3</td>
<td>3.5</td>
<td>3.4</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>ESG Rating</th>
<th>2020</th>
<th>2019</th>
</tr>
</thead>
<tbody>
<tr>
<td>CDP - Climate Change</td>
<td>C</td>
<td>D</td>
</tr>
<tr>
<td>CDP - Water Security</td>
<td>C</td>
<td>F (non-disclosure)</td>
</tr>
<tr>
<td>MSCI Rating</td>
<td>BB</td>
<td>BB</td>
</tr>
<tr>
<td>FTSE Russell</td>
<td>3.6</td>
<td>3.5</td>
</tr>
</tbody>
</table>

- Tata Power
- Industry Avg: Utilities
- Sub Sector: Conventional Elec
But re-visited key material issues focusing on a “Sustainable Future”

Material & Stakeholder Engagement Study for Tata Power - 2020

- Increase in Renewable portfolio
- Resource Availability (Coal & Water)
- Waste Management
- Carbon emission management
- Operational Efficiency
- Sustainable investment
- Biodiversity

360° review of business impact on stakeholders, bringing ESG to the core of business strategy in line with Tata Group commitment to Carbon Neutrality
Redrawing our Strategy with Sustainability at the core
Tata Power 2.0 – Empower a billion lives through sustainable, affordable & innovative energy solutions

- **No new coal-based capacity**: phase out of coal-based generation completely
- Selective waste heat based thermal generation through Group companies to be pursued
- **Achieve Carbon Neutrality by 2050**

- **Clean & Green Capacity to grow to ~ 60% by FY 2025 and 80% by FY 2030** driven by Renewable Energy – Solar as well as Hybrid assets to be the focus growth area

- Benchmark in water management in Indian utility sector and move towards **water positivity**
- Scale Participatory Ground Water Management Program to Increase recharge of ground water level and ensure water availability for communities
- Aim to achieve **Zero Waste to Landfill** - Benchmark in Waste and fly ash utilization

- Impact 30 Million lives positively
- 10000 Microgrids
- **Customer focused New & Service led business models**, focused on EV charging, Solar Rooftops, Solar pumps, Microgrids & Home Automation

Enter Dow Jones Sustainability Index Emerging Market List by FY 2025
Aiming for Sustainability leadership through UNSDGs

SDG Mapping -> SDG Prioritization & Classification -> SDG Roadmap

Business SDG

CSR SDG

Business-wise targets have been set for the prioritized SDGs to create a Roadmap.
Our journey towards a Sustainable Tomorrow
ENVIRONMENT PILLAR
To re-draw Tata Power’s Sustainability Aspirations

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
# To be a Global leader on Utility Sustainability practices

<table>
<thead>
<tr>
<th></th>
<th>2026</th>
<th>2030</th>
<th>2040</th>
<th>2050</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Decarbonization</strong></td>
<td>• 12% reduction in Absolute CO₂ emissions</td>
<td>• 20% reduction in Absolute CO₂ emissions</td>
<td>• 35% reduction in Absolute CO₂ emissions</td>
<td>Carbon Neutral</td>
</tr>
<tr>
<td></td>
<td>• 25% profits from low C business</td>
<td>• 50% profits from low carbon business</td>
<td>• 75% profits from low carbon business</td>
<td></td>
</tr>
<tr>
<td><strong>Circular Economy</strong></td>
<td>• 100% Water Neutral</td>
<td></td>
<td>100% Ground Water Recharge</td>
<td>100% Water Positive</td>
</tr>
<tr>
<td></td>
<td>• 100% Zero waste to Landfill-biodegradable waste</td>
<td>100% Zero Waste to Landfill – non biodegradable/overall</td>
<td>100% Gainful utilization of waste/by-products</td>
<td>100% Zero Waste to Landfill</td>
</tr>
<tr>
<td><strong>Thought Leadership</strong></td>
<td>• 50% score improvement - ESG indices</td>
<td>• EV100</td>
<td>Carbon Capture &amp; Utilization</td>
<td>Benchmark in utility sector!</td>
</tr>
<tr>
<td></td>
<td>• 50% Survival rate for Afforestation</td>
<td>• RE100</td>
<td>Green Hydrogen</td>
<td></td>
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</table>
To 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 thru 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 latest by 2050**
Social Impact envisaged

Impact 30 million lives

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

Outcomes over FY21 to 26

Impact 30 million lives
GOVERNANCE PILLAR
Robust Governance Structure in place

- Shareholders
- Board of Directors

Audit Committee
Nomination and Remuneration Committee
Stakeholders Relationship Committee
CSR Committee
Risk Management Committee

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 Materiality for Disclosures
- Remuneration Policy for Directors, Key Managerial Personnel and Other Employees
- Charters of various Board appointed Committees

Stakeholders Relationship Committee
Recognised for Best-in-class practices – CNBC TV18

FY-18
- Best Risk Management Framework & Systems – Power

FY-19
- Best Risk Management Framework & Systems – Power
- Business Continuity

FY-20
- Best Risk Management Framework & Systems – Power
- Risk Governance
Thank You!

Website: www.tatapower.com
Email Id: investorrelations@tatapower.com
Contact: +91 (0) 22 6717 1305
Annexures
Climate Strategy benchmarked with global utilities

<table>
<thead>
<tr>
<th>Present generation</th>
<th>Focus on renewables</th>
<th>Targets on Carbon</th>
</tr>
</thead>
<tbody>
<tr>
<td>27 GW</td>
<td>+700 MW renewable till 2021</td>
<td>75% reduction by 2030 and Carbon neutral by 2050</td>
</tr>
<tr>
<td>55 GW</td>
<td>All Coal and oil-based plants have been closed. Growth through Renewables.</td>
<td>50% reduction by 2030 and Carbon Neutral by 2050</td>
</tr>
<tr>
<td>86 GW</td>
<td>-7 GW of thermal, +14.6 GW Renewable</td>
<td>100% de-carbonization of energy mix by 2050</td>
</tr>
<tr>
<td>104 GW</td>
<td>Growth thru Renewables, low carbon energy; Green Bonds</td>
<td>100% low carbon gas by 2050</td>
</tr>
<tr>
<td>51 GW</td>
<td>Innovation, new technologies and a mix of clean sources of energy</td>
<td>Net Zero Carbon by 2050</td>
</tr>
<tr>
<td>23 GW</td>
<td>SBTi endorsed Carbon targets (2015) for GHG reduction</td>
<td>90% reduction in GHG, Net Zero Emissions</td>
</tr>
</tbody>
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- Net Zero Carbon by 2050
- Innovation, new technologies and a mix of clean sources of energy
- SBTi endorsed Carbon targets (2015) for GHG reduction
- 90% reduction in GHG, Net Zero Emissions
- 100% de-carbonization of energy mix by 2050
- 100% low carbon gas by 2050
- Growth thru Renewables, low carbon energy; Green Bonds
- All Coal and oil-based plants have been closed. Growth through Renewables.
- +700 MW renewable till 2021
- 75% reduction by 2030 and Carbon neutral by 2050
- 50% reduction by 2030 and Carbon Neutral by 2050
- 100% de-carbonization of energy mix by 2050
- 100% low carbon gas by 2050
- Net Zero Carbon by 2050
- 90% reduction in GHG, Net Zero Emissions

### Targets on Carbon
- Net Zero Carbon by 2050
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- 100% low carbon gas by 2050
Environmental Focus Areas
Involving stakeholders in the Carbon Mitigation journey

Carbon Mitigation Framework to include the CO2 savings across stakeholder groups

<table>
<thead>
<tr>
<th>SUPPLIERS</th>
<th>BUSINESS</th>
<th>EMPLOYEES</th>
<th>CUSTOMERS</th>
<th>COMMUNITY</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Encourage <strong>ESG disclosure</strong> for Tier-I suppliers</td>
<td>• <strong>Stringent targets for Carbon Intensity reduction</strong> (5-7%)</td>
<td>• <strong>Zero emissions campus</strong> - EV for in-campus</td>
<td>• <strong>Quantification of Carbon Savings</strong> (DSM, ESCO, New Businesses)</td>
<td>• Scaling up Club Enerji as a Brand property</td>
</tr>
<tr>
<td>• <strong>Responsible Supply Chain</strong> management – ethics, environment, human rights, safety</td>
<td>• Focus on <strong>viable technologies</strong> ✓ Storage technology (hydrogen) ✓ Carbon capture/mitigation</td>
<td>• <strong>Mobile app</strong> to reduce travel emissions</td>
<td>• <strong>Green Power Supply</strong> for customers</td>
<td>• <strong>Quantification of volunteering impact</strong></td>
</tr>
<tr>
<td></td>
<td></td>
<td>• <strong>Paperless office</strong></td>
<td>• <strong>Digitalize customer processes</strong> (paperless billing, Chatbot)</td>
<td>• <strong>E-Platform</strong> to increase afforestation numbers manifold</td>
</tr>
</tbody>
</table>
Driving Customer centric climate initiatives

Demand Side Management (DSM) & Energy efficiency programs

1. Consumption Pattern
   Identifying the consumption pattern of various consumer categories

2. Technology
   Analyzing various energy efficiency technologies available in the market

3. Expectations
   Understanding expectations of consumers from the DSM Program

4. Programs
   Developing wide range of options for stakeholders to choose from

- 16554 MWH saved through DSM in 3 years; ~25000 appliances exchanged
- Energy efficiency programs for industries, commercial complexes and large societies

Digitalization – Towards 100% paperless processes

- 70% customers use digital mode of payment
- 45000+ NACH consumers making e-payment
- 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
Investing in Businesses of Future

**EV Charging**
- Installed ~400 EV charging points in 65 cities
- Presence in cities like Mumbai, Delhi, Pune, Kolkata, Hyderabad, Bengaluru, Chennai, Ahmedabad, and Lucknow.

**Rooftop Solar**
- Installed 464+ MW of Rooftop capacity touching 30,000+ customers across 100 cities
- Tata Power Solar being ranked #1 Solar Roof player for last six years by Bridge to India
- Recorded highest ever order input of Rs 860 Crores+ (~239MWp) in FY20
- India’s first 10MW Grid-scale energy storage paved way for ancillary market services, power quality management, effective renewable integration & peak load grid management

**Utility Scale Storage**
- South Asia’s Largest Grid-Scale Energy Storage System in India with Mitsubishi & AES
- Piloting Smart Grid Solutions

**Key Financials**
- Rs 5000 Cr revenue from Rooftop Solar by FY25
- 1 lakh EV charging stations by FY25
Ecosystem Conservation efforts

**TREE MITRA:**
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
SOCIAL THRUST AREAS
Empowering consumers through Low Carbon Business offerings

**Microgrids**
TP Renewable Microgrid Ltd. launched on 4th Nov 19

Tata Power has already installed 128 Microgrid 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

**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
CSR Flagship Initiatives - Empowering Communities

**Community Welfare**
- Education | Health & Nutrition
- Financial Inclusivity

**Community Empowerment**
- Skills | Livelihoods | Income Generation

**Water Security**
- Water Conservation and Accessibility

**Beneficiaries**
- Males: 10+ lakhs
- Females: 13+ lakhs
- Focus on Women – 57%

**COVID-19 INTERVENTIONS**

**Additionally impacting** 15.14 Lakhs
people from defined CSR clusters (9.48 L) & beyond regular CSR target clusters (5.66 L)

**Existing Beneficiaries (Coverage in Lakhs)**
- SHG Livelihood: 0.16
- Vocational Training: 0.43
- Farm Based Livelihood: 0.67
- Education: 1.62
- Health & Sanitation: 7.15
- Water: 10.35
- Financial Inclusivity: 3.53
- Total Beneficiary Coverage: 25.71
Skilling Industry: Tata Power Skill Development Institute

**TPSDI Beneficiaries**
- Tata Power Employees & CWF
- Corporates & Utilities
- Unemployed Youth

**Youth Trainings**
- Trained 2,706 Engineering students
- Managed to achieve 69% of placements
- Won the biggest Training Order – BIT-Sindri
- Conducted highest number of Abha batches

**International Award**
- Won Brandon Hall HCM Award – “Gold” under Best Advance in Competencies and Skill Development category

**International Order**
- Delivering International Assignment funded by MCC, Govt of USA for Liberia Electricity Corp. (LEC) worth Order value ~7 Crores INR

**Launched Virtual Platform**
- Launched Virtual Training Platform – TVAS (TPSDI Virtual Academy of Skills)
- Launched TPSDI Mobile-App

**Social Marketing**
- Conducted 5 Webinars that garnered 12,000+ registrations
Promoting Gender Diversity at Tata Power

**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%

**Gender Diversity YoY**
- FY19: 8%
- FY20: 10%
- FY21: 12%

**Women Officers as % of New Officers Joined**
- FY18: 13%
- FY19: 19%
- FY20: 23%

**Engagement Score of Women Officers**
- FY16: 72%
- FY18: 72%
- FY20: 77%

**Women in**
- Senior Management: 2%
- Middle Management: 26%
- Junior Management: 73%
Tata Power’s focus on Safety

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

GLOBAL LEADER
✓ Aspiration to be world class
✓ Digitalization and New technology intervention

SAFE WORK PRACTICES
✓ Feel safe to work
✓ Taking safety to all stakeholders
✓ Bring safety in the DNA of the organisation

SAFETY PERFORMANCE
✓ No harm / No injuries
✓ Benchmarked approaches

“Safety is a core value over which no business objective can have higher priority”
GOVERNANCE PILLAR
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).
Tata Power has received copyright for its Risk Quantification Process as well as for the online Risk Management System.