

# SUSTAINABLE LIFESTYLE GUIDELINES

## Purpose

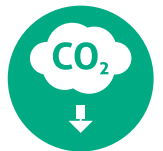
As Tata Power strives to lead the energy transition for the sector, we are equally committed to safeguarding the environment for future generations and developing our business in a way that adds value to the local communities. Tata Power has identified three crucial sustainability thrust areas in alignment to UN SDGs which will help Tata Power to become a benchmark in sustainable practices. The three thrust areas are -

- **Decarbonization:** Tata Power aims to consistently reduce the carbon footprint and become carbon neutral by 2050
- **Circular Economy:** Tata Power has the aspiration to become water positive and contribute to zero waste to landfill by 2050
- **Thought leadership:** Tata Power plans to become a global sustainability benchmark in the sector.

We are setting forth a set of sustainability practices aligned to these thrust areas which will help each and every individual to transition to a more sustainable lifestyle to help fight the climate change.

## Decarbonisation

Climate change is a reality and we are conscious of our Carbon footprint. Emission reduction through SBTi, rapid renewables expansion, and thermal phase-out at end-of-life, new energy efficient solutions for customers is our effort to contribute to fight climate change.



Sr. no.	Guideline	How it helps?
1.	Try out home automation.	• Help in real time tracking of electricity consumption around the household and reduce emission by approximately 13%
2	Reduce consumption of meat and poultry products by a quarter and substitute plant proteins	• Save about 82 million metric tons of greenhouse gas emissions per year at country level
3	Use electric vehicles and cycles	• Cycling benefits cardiovascular fitness and produces only 7% of CO <sub>2</sub> as compared to a car. EVs produce zero direct emissions.
4	Use rooftop solar/solar panels where appropriate	• Solar panels reduce dependence on fossil fuel-based electricity leading to saving of 0.7kg of CO <sub>2</sub> emission/unit. A 1kWh setup is equivalent to planting 2 trees in terms of carbon sequestration.
5	Buy BEE 5 star rated appliance	• Using BEE star rated appliances will reduce energy consumption, electricity bills and carbon footprint.
6	Regularly inflate vehicle tires	• Car with properly inflated tires give more mileage which leads to less fuel consumption and reduce CO <sub>2</sub> emission by approximately 150kg per vehicle.
7	Heat food at one go to reduce unnecessary use of microwave	• Helps reduce annual CO <sub>2</sub> emission by approximately 30kg per household

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8	Reduce gas usage by using fuel efficient cooking methods like cover cooking pots, using optimum quantity of water, etc.	<ul style="list-style-type: none"> <li>• Help reduce annual CO<sub>2</sub> emission by approximately 62kg per household</li> </ul>
9	Reduce the temperature setting on the geyser	<ul style="list-style-type: none"> <li>• For a comfortable bath lower temperature is enough and helps reduce annual CO<sub>2</sub> emission by approximately 172kg per household</li> </ul>
10	Reduce watching TV/laptops and go out and play or walk	<ul style="list-style-type: none"> <li>• Playing outside will both improve health and reduce annual CO<sub>2</sub> emissions by approximately 62-93 kg per person</li> </ul>
11	Prefer walking for shorter trips	<ul style="list-style-type: none"> <li>• Reduce annual CO<sub>2</sub> emission by approximately 11-48kg per vehicle.</li> </ul>
12	Ensure that AC is set at 26 degree centigrade. Better still, use fans or natural ventilation when possible instead of ACs.	<ul style="list-style-type: none"> <li>• Each degree change in the AC temperature setting results in approximately 3-8% savings on electricity bills.</li> <li>• Hydroflouorocarbons used in most ACs are 1000 times more potent than CO<sub>2</sub> in contributing to climate change per unit of mass</li> </ul>
13	Switch off lights, fans, ACs, geysers, electronic items and office equipment from the mains in a room that is not in use. Keep laptops in sleep/hibernate mode when not in use	<ul style="list-style-type: none"> <li>• Simply turning off devices not in use can save more than approximately 100kgs of CO<sub>2</sub> per year</li> </ul>
14	Keep the blinds open to maximize the use of natural light	<ul style="list-style-type: none"> <li>• Natural light has numerous health benefits like Vitamin D production in body, maintaining circadian cycle, increased productivity in addition to energy savings</li> </ul>
15	Use the stairs	<ul style="list-style-type: none"> <li>• We contribute to half a metric ton of carbon emissions over a lifetime through elevator use</li> </ul>
16	Replace regular bulbs by LEDs and provide enough light to work safely	<ul style="list-style-type: none"> <li>• Replacing one regular light bulb with an LED will save approximately 68kgs of CO<sub>2</sub> per year</li> </ul>
17	Reduce air travel by using phone, e-mail, video conferencing facilities	<ul style="list-style-type: none"> <li>• A single travel between Mumbai to Delhi can contribute approximately 200kgs of CO<sub>2</sub> emissions per person</li> </ul>

### Circular Economy

The practice of 6R's is the basic framework of implementing circular economy in our lifestyle.



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1	Air dry hands to reduce use of paper towels	<ul style="list-style-type: none"> <li>• Usage of ~10 paper towels a day amounts to 100kgs of CO<sub>2</sub> emissions per year</li> </ul>
2	Conserving water by using it wisely and judiciously, at all locations. Replace taps and showerheads with water efficient fittings	<ul style="list-style-type: none"> <li>• Up to 20% of water usage can be reduced by using low flow equipment</li> </ul>
3	Save paper by using electronic documents and files instead of hard copies. Switch to online news, e-bills, e-visiting cards, e-greetings etc. If necessary, print using both sides and in black and white whenever possible.	<ul style="list-style-type: none"> <li>• Subscribing to one newspaper contributes to 67kgs of CO<sub>2</sub> emissions in a year.</li> </ul>
4	Reduce food wastage.	<ul style="list-style-type: none"> <li>• Nearly 1/3rd of the food produced in India is wasted leading to a carbon footprint larger than most countries (next only to US and China).</li> </ul>

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5	Use common office supplies from a shared unit.	<ul style="list-style-type: none"> <li>Reusing used envelopes for internal couriers and using common supplies reduces wastage</li> </ul>
6	Implement rainwater harvesting.	<ul style="list-style-type: none"> <li>Collecting and reusing rainwater reduces dependence on municipal water (saving cost) and restores the hydrological cycle.</li> </ul>
7	Reduce use of plastic/paper bags, cups, plates, spoons, bottles by stocking reusable cups, plates, bowls, utensils	<ul style="list-style-type: none"> <li>Plastic takes up to 1000 years to degrade into smaller bits which then contaminate soil, water and our food. Microplastics also lead to myriad health issues.</li> </ul>
8	Use rechargeable batteries.	<ul style="list-style-type: none"> <li>Rechargeable batteries consume 23 times less non-renewable natural resources than disposable batteries.</li> </ul>
9	Reuse packaging – tins, containers, bottles etc.	<ul style="list-style-type: none"> <li>Limits the use of new natural resources and reduces waste to landfill</li> </ul>
10	Use recyclable plastic where possible and segregate waste appropriately when discarding to enable processing.	<ul style="list-style-type: none"> <li>There is a numerical classification from #1-#7 indicating most to least recyclable plastic marked on plastic ware.</li> </ul>
11	Recycle e-waste through recognized vendors.	<ul style="list-style-type: none"> <li>India is the 5th largest E-waste producer in the world (2 mill tones annually) growing at ~30% CAGR. Only 12.5% of e-waste is currently recycled.</li> </ul>
12	Recycle all envelopes, paper, newspaper and magazines.	<ul style="list-style-type: none"> <li>Recycling one ton of paper can save 17 trees, 27,000 liters of water, 1500 liters of oil, 2.5 cubic meter of landfill space and 4000 kW of energy</li> </ul>
13	Donate clothes, toys, books, electronic goods, utensils etc. to the needy.	<ul style="list-style-type: none"> <li>Disposing in landfills releases CO<sub>2</sub>, CH<sub>4</sub> to the atmosphere and leaches chemical into the soil. Making new goods takes gallons of water and resources.</li> </ul>
14	Compost organic waste and use as manure to improve soil quality and water retention.	<ul style="list-style-type: none"> <li>Using organic manure from composting avoids synthetic fertilizers avoiding N<sub>2</sub>O which is 310 times more harmful than CO<sub>2</sub></li> </ul>
15	Waste segregation.	<ul style="list-style-type: none"> <li>The Solid Waste Management rules, 2016 mandate segregation of waste into three streams- Biodegradables, Dry (plastic, paper, metal, wood, etc.) and Domestic Hazardous waste (diapers, napkins, mosquito repellants, cleaning agents etc.) before handing it over to the collector.</li> </ul>
16	Remodel out of fashion but in-condition clothes rather than buy fast fashion.	<ul style="list-style-type: none"> <li>Production of new textiles accounts for 10% of all carbon emissions on earth</li> </ul>

**Thought Leadership**

Contribute to the movement to limit the warming below 2°C and lead the green movement by educating others on resource conservation, energy efficiency and lowering of carbon footprint.



Sr. no.	Guideline	How it helps?
1	Create a green space	<ul style="list-style-type: none"> <li>• One tree will absorb about 1000kgs of CO<sub>2</sub> over its lifetime.</li> <li>• Planting trees is the most cost-effective solution to carbon mitigation with numerous other ecological benefits</li> </ul>
2	Monitor energy savings ( <a href="https://www.tatapower.com/sustainability/calculate-carbon-footprints.aspx">https://www.tatapower.com/sustainability/calculate-carbon-footprints.aspx</a> )	<ul style="list-style-type: none"> <li>• Energy savings of 5-15% can be achieved by monitoring usage and corrective action.</li> </ul>
3	Volunteer for Climate Action	<ul style="list-style-type: none"> <li>• Earth Overshoot Day marks the date when humanity's demand for ecological resources and services in a given year exceeds what Earth can regenerate in that year.</li> <li>• In 2020, EOD was observed on August 22.</li> </ul>
4	Be a sustainability champion	<ul style="list-style-type: none"> <li>• Educate others (family and friends) about the need to adopt sustainable lifestyle</li> </ul>

**Let us "Live Sustainability" by living sustainably!**

For any suggestions or clarifications, please write to [tatapower@tatapower.com](mailto:tatapower@tatapower.com)