

SECTION 1: AMBITION

1.1. Ambitions to achieve SDG7 by 2030.


7.1. By 2030, ensure universal access to affordable, reliable, and modern energy services.	Target(s): Time frame: Context for the ambition(s):	NOT APPLICABLE
7.2. By 2030, increase substantially the share of renewable energy in the global energy mix	Target(s): Time frame: Context for the ambition(s):	NOT APPLICABLE
7.3. By 2030, double the global rate of improvement in energy efficiency.	Target(s): Time frame: Context for the ambition(s):	NOT APPLICABLE
7.a. By 2030, enhance international cooperation to facilitate access to clean energy research and technology, including renewable energy, energy efficiency and advanced and cleaner fossil fuel technology, and promote investment in energy infrastructure and clean energy technology.	Target(s): Time frame: Context for the ambition(s):	NOT APPLICABLE
7.b. By 2030, expand infrastructure and upgrade technology for supplying modern and sustainable energy services for all in developing countries, in particular least developed countries, small island developing States, and land locked developing countries, in accordance with their respective programs of support.	Target(s): Time frame: Context for the ambition(s):	NOT APPLICABLE


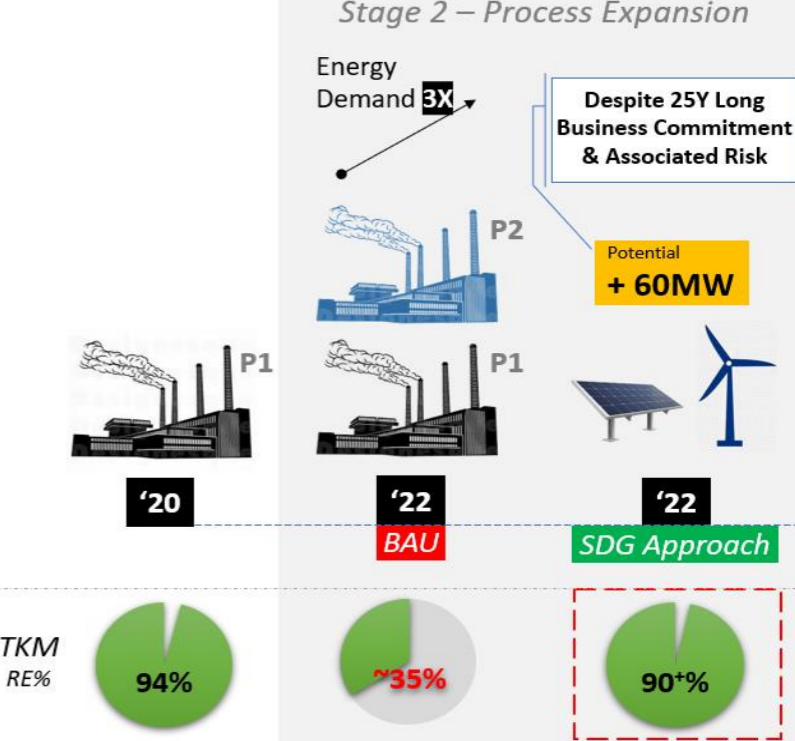
1.2. Other ambitions in support of SDG7 by 2030 and net-zero emissions by 2050.

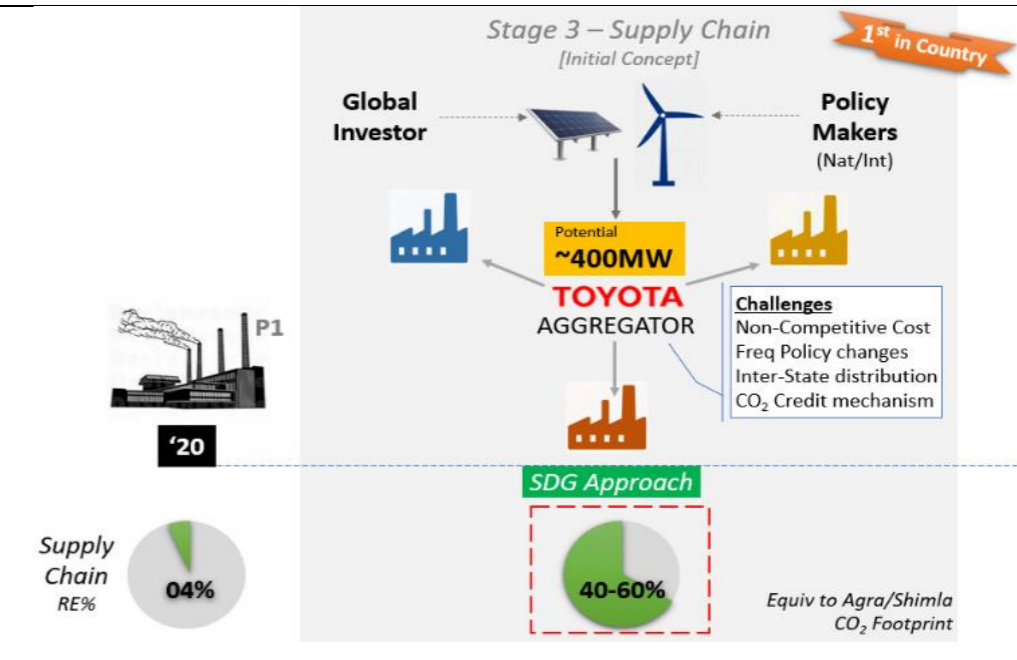
A) Target(s): Inhouse Manufacturing Process to become CO2 Neutral Time frame: Y2030-35 Context for the ambition(s): SDG7 & Toyota Environmental Challenge #3	<p>TOYOTA-India has advanced its SDG#7 goals much ahead to its GLOBAL strategy. In-house manufacturing process and Supply Chain remains at core of this initiative.</p> <p>SDG#7 Strategy – TOYOTA India</p>
B) Target(s): Supply Chain to become CO2 Neutral Time frame: Y2030-35 Context for the ambition(s): SDG7 & Toyota Environmental Challenge #2	
C) Target(s): Conversion of Energy through efficient technologies & innovations – Switchover LPG to RLNG, biogas, steam-less Hot Water generation. Time frame: Y2015 onwards Context for the ambition(s): Toyota Environmental Challenge #3	
D) Target(s): Consumption reduction from grass-root level ideas of thousands of employees & contractors, back-to-basics techniques (ex: gravity based automations) – augmented by hierarchical mentoring & visualization. Time frame: Y2010 onwards Context for the ambition(s): Toyota Environmental Challenge #3	

SECTION 2: ACTIONS TO ACHIEVE THE AMBITION

2.1 Please add atleast one key action for each of the elaborated ambitions(s) from Section 1

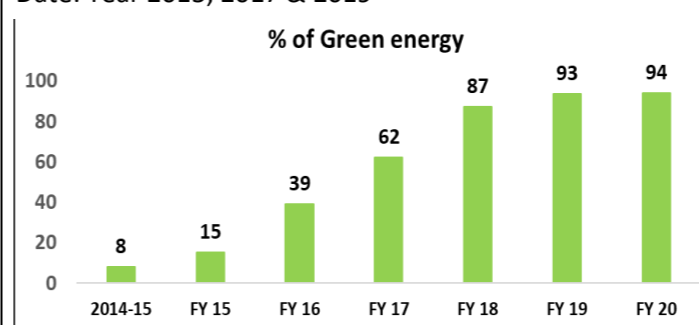

<p>Description of action [Ref 1.2A,B,C,D]</p> <p>Leadership</p>  <p>SDG7 Goals are envisioned and led by top leaders of company. Deputy Managing Director - Raju B Ketkale, leading at forefront, happily acknowledges SDGs as one of his key deliverables to the organization. This led to several transformations & bold strategies towards the declared Zero-CO₂ Goal.</p>	Start and end date: Since Year2015
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<p>Description of action [Ref 1.2A,B,C,D] Organizational Transformation Evolving strong & unique strategies starts with creation of focused and creative teams. Organization could bring-in several such functional start-ups;</p> <ul style="list-style-type: none"> - Creation of Corporate Sustainability & Environment Department – to develop actionable roadmaps for realizing SDGs. - Creation of Zero-CO₂ Department – for driving the Energy Management & RE across the organization. - Creation of Supplier Kaizen Department (Supplier Development) – for focused driving of SDG7 into Supplier’s board room. - Creation of 10 Sub-committees to also drive SDGs across relevant manufacturing processes. 	<p>Start and end date Since Year2015</p>
<p>Description of action [Ref 1.2A,B,C,D] Capacity Building Several key assets were identified and dedicated to the SDG Tasks – including Human Assets. Many such resources were long-term deployed to global knowledge-centers on SDGs & Sustainability. Such human development was crucial to evolve an effective action plan and also to strategically deploy it.</p> <p>Strong ambitions need strong partners to materialize it – and hence the market leader ReNew Power was taken on board as channel partner to assist company in driving several ambitious RE projects.</p>	<p>Start and end date Since Year2015</p>
<p>Description of action [Ref 1.2A,B,C,D] 2.5 Long-Term Action Plans A clear roadmap was drawn upto Y2050 focusing on all SDGs. Roadmap was then divided into 6 Eco-Challenges as clear verticals. Each of these Challenges were then built upon to derive series of intense 5Year Action Plan. Such action plans also helped visualize bottlenecks and way-forward in developing relevant resources.</p> <p>Early Plan - Toyota’s early preparations & strategies could result in quick actions and global leadership in SDGs.</p> <p>Also, Action Plans detailed the expected role of each internal & external Stakeholder – which further helped in early on-boarding of latter.</p> <p>Toyota-India being one among the initial large-scale RE installers, could bring in the much-needed movement in India’s journey towards Carbon-Neutrality.</p>	<p>Start and end date Since Year2012</p> 
<p>Description of action [Ref 1.2A] Innovative & Bold Strategy:</p> <p>Toyota-India is now gearing up to significantly expand its production by Y22. New volumes will ironically bring down the RE footprint to meagre ~30-35% - if left unattended. However, this time, an SDG approach was adopted from the project conceptualization stage itself. Under such approach, there’s a potential to add-on upto 60MW of Solar/Wind installations.</p>	<p>Start and end date Since Year2022</p>  <p>Stage 2 – Process Expansion</p> <p>Energy Demand 3X</p> <p>Despite 25Y Long Business Commitment & Associated Risk</p> <p>Potential + 60MW</p> <p>'20 P1</p> <p>'22 P2</p> <p>'22 P1</p> <p>'22 BAU</p> <p>'22 SDG Approach</p> <p>TKM RE% 94%</p> <p>~35%</p> <p>90*%</p>

<p>Description of action [Ref 1.2B]</p> <p>Strategy for Supply Chain</p> <p>On other hand, Toyota-India is has drawn an ambitious plan to make Supply Chain also green. This involves “first-in-class” approach to act as an Aggregator and thus facilitate all small-medium energy consumers switch to Sustainable Energy (SDG7). This concept draws extensive roles of global investors and Policy Makers – without whom commercial feasibility of the project itself will be questionable.</p> <p>Potential of this project is around 400MW – equivalent to the CO2 Footprint of some tier-3 cities!!</p>	<p>Start and end date Since Year2022</p>  <p>Stage 3 – Supply Chain [Initial Concept] 1st in Country</p> <p>Global Investor → Potential ~400MW → Policy Makers (Nat/Int)</p> <p>TOYOTA AGGREGATOR</p> <p>Challenges Non-Competitive Cost Freq Policy changes Inter-State distribution CO₂ Credit mechanism</p> <p>Supply Chain RE% '20: 04% SDG Approach: 40-60% Equiv to Agra/Shimla CO₂ Footprint</p>
<p>Description of action [Ref 1.2A]</p> <p>Urban Afforestation – TKM has carried out Urban Afforestation (Green Wave Project) under the advisory of green-revolutionist Dr. Akira Miyawaki (concept of establishing Potential Natural Vegetation utilizing native species). Around 3.2 lakh saplings of more than 600 native species are planted inside campus, the native forests helped in creating safe habitat for local birds & butterflies and many other fauna. Through these plantations, CO₂ of 4,700 tons could be sequestered.</p>	<p>Start and end date : Y2009</p>

SECTION 3: OUTCOMES

3.1 Please add atleast one measurable and time-bound outcome for each of the actions from Section 2

<p>Outcome [Ref 1.2A]</p> <p><i>Till present day:</i> Toyota-India started working on RE in Y2015-16, where on-site 3.2MW PV was erected. This was followed by 5.0 MW on-site installation through a unique on-grid model. Once confidence was built around the reliability of RE supply, TKM extended its arms to off-site model – wherein 18MW was progressively installed. A total of 26.2 MW.</p> <p>Despite challenging business conditions, TKM could achieve credible heights in RE%. Cumulatively, since 2014, we could reduce 2,41,000 tons CO2 through RE alone.</p> <p>Further, under influence of Toyota, many nearby Supplier-Partners could also sustain RE beyond 90%. Through some of these initiatives we could already save nearly 91,108 tons of CO2 amongst suppliers.</p>	<p>Date: Year 2015, 2017 & 2019</p>  <p>% of Green energy</p> <table border="1"> <thead> <tr> <th>Year</th> <th>% of Green energy</th> </tr> </thead> <tbody> <tr> <td>2014-15</td> <td>8</td> </tr> <tr> <td>FY 15</td> <td>15</td> </tr> <tr> <td>FY 16</td> <td>39</td> </tr> <tr> <td>FY 17</td> <td>62</td> </tr> <tr> <td>FY 18</td> <td>87</td> </tr> <tr> <td>FY 19</td> <td>93</td> </tr> <tr> <td>FY 20</td> <td>94</td> </tr> </tbody> </table>  <p>Solar Park On-site Solar Park Off-site</p>	Year	% of Green energy	2014-15	8	FY 15	15	FY 16	39	FY 17	62	FY 18	87	FY 19	93	FY 20	94
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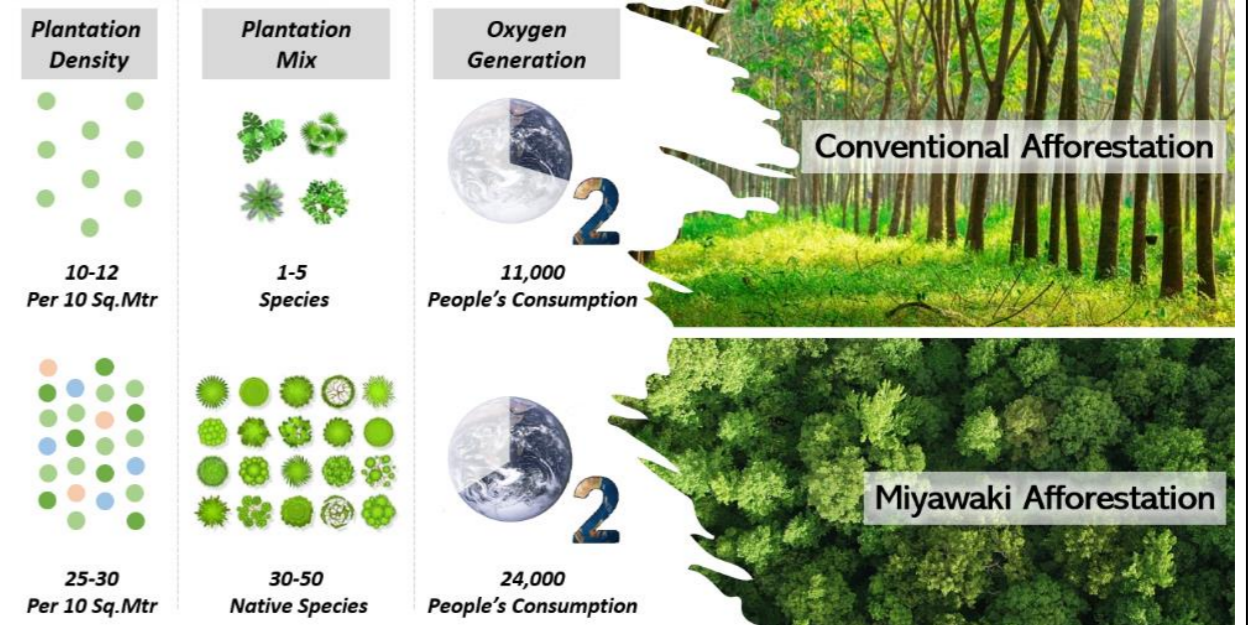
Outcome [Ref 1.2A]

Carbon Sequestration– Toyota-India has carried out Urban Afforestation (Green Wave Project) under the advisory of green-revolutionist Dr. Akira Miyawaki (concept of establishing Potential Natural Vegetation utilizing native species). Around 3.2 lakh saplings of more than 600 native species are planted inside campus, the native forests helped in creating safe habitat for local birds & butterflies and many other fauna. Through these plantations, **CO₂ of 4,700 tons could be sequestered.**

Similarly, Toyota’s flagship initiative ‘EcoZone – An Experience Learning Center!’ has laid path to create thousands of young Green Ambassadors, who will innovate & drive future of India’s Sustainability story!!



Date: Since Year 2009



SECTION 4: REQUIRED RESOURCES & SUPPORT

4.1 Please specify required finance and investments for each of the actions in Section 2.

Toyota’s RE ambition has now entered Stage-2 & Stage-3, which requires extensive support of;

- National & International Policy makers
- Global Investors & VCs
- CO₂ Credit Mechanism & Certifiers
- Channel Partners for Low-Cost Installation & Distribution

4.2 – Not applicable

SECTION 5: IMPACT

5.1 Countries planned for implementation including number of people potentially impacted.

India

5.2 Alignment with the 2030 Agenda for Sustainable Development – Please describe how **each** of the actions from section 2 impact advancing the SDGs by 2030..

Aligned with SDG7 – Providing Sustainable & Affordable Energy (RE) to suppliers of Toyota-India (incl small-medium enterprises)

5.3 Alignment with Paris Agreement and net-zero by 2050 - Please describe how **each** of the actions from section 2 align with the Paris Agreement and national NDCs (if applicable) and support the net-zero emissions by 2050.

Aligned with SDG7 – Providing Sustainable & Affordable Energy (RE) to suppliers of Toyota-India (incl small-medium enterprises)

SECTION 6: MONITORING AND REPORTING

6.1 Please describe how you intend to track the progress of the proposed outcomes in section 3. Please also describe if you intend to use other existing reporting frameworks to track progress on the proposed outcomes.

Outcomes are estimated through Primary & Secondary Source of data (as per GHG protocol). Further same is verified by 3rd Party valuator & certifying agency.

SECTION 7: GUIDING PRINCIPLES CHECK LIST

Please use the checklist below to validate that the proposed Energy Compact is aligned with the guiding principles.

I. Stepping up ambition and accelerating action - Increase contribution of and accelerate the implementation of the SDG7 targets in support of the 2030 Agenda for Sustainable Development for Paris Agreement

I.1. Does the Energy Compact strengthen and/or add a target, commitment, policy, action related to SDG7 and its linkages to the other SDGs that results in a higher cumulative impact compared to existing frameworks?

Yes No

I.2. Does the Energy Compact increase the geographical and/or sectoral coverage of SDG7 related efforts? Yes No

I.3. Does the Energy Compact consider inclusion of key priority issues towards achieving SDG7 by 2030 and the net-zero emission goal of the Paris Agreement by 2050 - as defied by latest global analysis and data including the outcome of the Technical Working Groups? Yes No

II. Alignment with the 2030 agenda on Sustainable Development Goals – Ensure coherence and alignment with SDG implementation plans and strategies by 2030 as well as national development plans and priorities.

II.1. Has the Energy Compact considered enabling actions of SDG7 to reach the other sustainable development goals by 2030? Yes No

II.2. Does the Energy Compact align with national, sectoral, and/or sub-national sustainable development strategies/plans, including SDG implementation plans/roadmaps? Yes No

II.3. Has the Energy Compact considered a timeframe in line with the Decade of Action? Yes No

III. Alignment with Paris Agreement and net-zero by 2050 - Ensure coherence and alignment with the Nationally Determined Contributions, long term net zero emission strategies.

III.1. Has the Energy Compact considered a timeframe in line with the net-zero goal of the Paris Agreement by 2050? Yes No

III.2. Has the Energy Compact considered energy-related targets and information in the updated/enhanced NDCs? Yes No

III.3. Has the Energy Compact considered alignment with reaching the net-zero emissions goal set by many countries by 2050? Yes No

IV. Leaving no one behind, strengthening inclusion, interlinkages, and synergies - Enabling the achievement of SDGs and just transition by reflecting interlinkages with other SDGs.

IV.1. Does the Energy Compact include socio-economic impacts of measures being considered? Yes No

IV.2. Does the Energy Compact identify steps towards an inclusive, just energy transition? Yes No

IV.3. Does the Energy Compact consider measures that address the needs of the most vulnerable groups (e.g. those impacted the most by energy transitions, lack of energy access)? Yes No

V. Feasibility and Robustness - Commitments and measures are technically sound, feasible, and verifiable based a set of objectives with specific performance indicators, baselines, targets and data sources as needed.

V.1. Is the information included in the Energy Compact based on updated quality data and sectoral assessments, with clear and transparent methodologies related to the proposed measures? Yes No

V.2. Has the Energy Compact considered inclusion of a set of SMART (specific, measurable, achievable, resource-based and time based) objectives? Yes No

V.3. Has the Energy Compact considered issues related to means of implementation to ensure feasibility of measures proposed (e.g. cost and financing strategy, technical assistant needs and partnerships, policy and regulatory gaps, data and technology)? Yes No

SECTION 8: ENERGY COMPACT GENERAL INFORMATION

8.1. Title/name of the Energy Compact: **M/s. TOYOTA KIRLOSKAR MOTORS, Bangalore, India**

“Sustainable Energy for Sustainable Business – Innovative & Bold Strategies”

8.2. Lead entity name (for joint Energy Compacts please list all parties and include, in parenthesis, its entity type, using entity type from below) - M/s. TOYOTA KIRLOSKAR MOTORS, Bangalore, India

8.3. Lead entity type

Private Sector

8.4. Contact Information

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(email) avi@toyota-kirloskar.co.in

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(email) srinivasack@toyota-kirloskar.co.in

8.5. Please select the geographical coverage of the Energy Compact

Africa **Asia and Pacific** Europe Latin America and Caribbean North America West Asia Global

8.6. Please select the Energy Compact thematic focus area(s)

Energy Access Energy Transition Enabling SDGs through inclusive just Energy Transitions Innovation, Technology and Data Finance and Investment.