To reduce the usage of hazardous and toxic chemicals/substances in our processes we have adopted a comprehensive strategy that encompasses the following key elements:

Hazard Identification and Risk Assessment (HIRA): Implementing a systematic approach to identify and analyze the physical, chemical, biological, and environmental hazards in the plant, analyzing potential & actual risks, classifying risks, and recommending corrective actions to minimize or eliminate hazards.

Regular Inspections and Preventive Measures: Conducting regular inspections and employing preventive measures such as water sprays, isolation from ignition sources, proper ventilation, and spark-proof electrical equipment. Ensuring the use of appropriate personal protective equipment (PPE), such as dust masks and safety guards on moving parts.

Training and Supervision: Providing thorough training and proper supervision to the workforce to handle hazardous chemicals/substances safely. This includes the use of safety belts, safety nets, helmets, and protective suits where necessary.

Optimization of Water Consumption: Adopting waste management practices that aim for Zero Liquid Discharge (ZLD), which involves treating and recycling wastewater for reuse in various process applications. This approach helps in preventing the discharge of effluents from power plants and thereby reducing the reliance on fresh water.

By integrating these strategies into our operations, Compliance with local regulations and standards is also ensured in the implementation of the above strategies that has helped us significantly reduced the use of hazardous and toxic chemicals/substances and manage waste more effectively, contributing to a safer and more sustainable environment.

11. If the entity has operations/offices in/around ecologically sensitive areas (such as national parks, wildlife sanctuaries, biosphere reserves, wetlands, biodiversity hotspots, forests, coastal regulation zones etc.) where environmental approvals / clearances are required, please specify details in the following format:

Location of operations/ offices	Type of operations	Whether the conditions of environmental approval / clearance are being complied with? (Y/N) If no, the reasons there of and corrective action taken, if any.
Adani - Dahanu Thermal Power Station	Electricity Generation	Yes
500 KV D/C TL from Mundra to Mahendragarh. (HVDC)	Power Transmission	Yes
400 KV D/C TL from Mundra to Dehgam	Power Transmission	Yes
400 KV D/C Mahendragarh-Bhiwani Line	Power Transmission	Yes
400 KV Mahendragarh-Dhanaunda line	Power Transmission	Yes
33 KV Mahendragarh Kaithal transmission line	Power Transmission	Yes
765 kV D/C Bhuj to Lakadia TL	Power Transmission	Yes
LILO of 400 kV D/C Bachau to EPGL	Power Transmission	Yes
765 kV D/C Lakadia to Banaskantha TL	Power Transmission	Yes
400 KV D/C Limbdi -Vadavi TL	Power Transmission	Yes
400 KV D/C Vadavi- Kansari TL	Power Transmission	Yes
400 KV D/C Rajgarh-Karamsad TL	Power Transmission	Yes
400 KV D/C Rajgarh-Karamsad TL	Power Transmission	Yes
400 KV D/C Pune- Aurangabad TL	Power Transmission	Yes
765 kV Tiroda Koradi Ckt - 1	Power Transmission	Yes
765 kV Tiroda Koradi Ckt - 2	Power Transmission	Yes
400 kV D/C TL from Tiroda to Warora	Power Transmission	Yes
765 KV/DC Raipur - Rajnandgaon- Warora Transmission Limited	Power Transmission	Yes

Location of operations/ offices	Type of operations	Whether the conditions of environmental approval / clearance are being complied with? (Y/N) If no, the reasons there of and corrective action taken, if any.
765 KV/DC Raipur - Rajnandgaon- Warora Transmission Limited	Power Transmission	Yes
765 KV S/C Champa Dharamjaygarh Transmission Line	Power Transmission	Yes
400 kV D/C Suratgarh - Bikaner Transmission Line	Power Transmission	Yes
132 kV S/C Loonkaransar Transmission line	Power Transmission	Yes
LILO of 132 KV SC Mahaveer Nagar Deoli Manjhi Line	Power Transmission	Yes
765 kV D/C Fatehgarh Bhadla	Power Transmission	Yes
765 KV D/C Bikaner-Khetri TL	Power Transmission	Yes
400 kV D/C Ghatampur-Kanpur TL	Power Transmission	Yes
765 kV S/C Agra-Greater Noida TL	Power Transmission	Yes
400kV D/C Jaunpur Obra TL	Power Transmission	Yes
400 kV D/C Roza - Badaun line	Power Transmission	Yes
LILO of 220 kV C.B. Ganj - Badaun S/C line at Badaun		Yes
LILO of 220 kV Chandausi - Badaun S/C line at Badaun		Yes
132kV Badaun-Ujhani S/C line and 132 kV Bilsi-Badaun S/C line		Yes
765KV D/C Warora Pool - Warangal (New) TL	Power Transmission	Yes
765KV D/C Warora Pool - Warangal (New) TL	Power Transmission	Yes
756kV D/C Warangal - Chilakaluripeta TL	Power Transmission	Yes
400 kV Vikhroli receiving station and associated incoming transmission lines (LILO Line)	Power Transmission	Yes
400 kV Kharghar Vikhroli line (Main Line)	Power Transmission	Yes
Ajaygarh Panna 132 kV DSSS Line	Power Transmission	Yes
Sleemnabad - Bahoribandh - Katangi 132kV DCSS line	Power Transmission	Yes
Deonagar - Harrai 132kV DCSS line and Harrai - Amarwara 132kV DCSS line	Power Transmission	Yes
Associated Transmission Lines with 220/132/33 kV Substation Begumgang involving.	Power Transmission	Yes
1. Sagar - Begumganj 220 kV DCDS Line,		
2. Begumganj - Rahatgarh 132kV DCSS Line,		
3. Begumganj - Silwani 132 kV DCSS Line,		
4. Begumganj Gyaraspur 132 kV DCSS line		
LILO of Nainpur Mandla 132kV line at Baihar 132kV Substation	Power Transmission	Yes
Construction of 400 kV D/C North Karanpura to Gaya Transmission Line (Bihar portion)	Power Transmission	Yes
Construction of 400 kV D/C North Karanpura to Gaya Transmission Line (Jharkhand Portion)	Power Transmission	Yes
400 kV D/C North Karanpura to Chandwa TL	Power Transmission	Yes

Note: Avoidance of ecologically sensitive areas such National Parks, Wildlife Sanctuaries, Forest etc. forms the most important part of our route/site selection criteria. Accordingly, a mandatory Environmental and Social assessment is conducted for each of our projects by studying at least three possible routes/sites and the most optimum route/site having the least Environment & Social impacts is selected as Final route/site. However, in few cases, complete avoidance of forest/wildlife areas is not possible in our Transmission Lines, due to peculiarity of terrain and geographical constraint, Forest and or Wildlife and or CRZ clearance is obtained as per the provisions of applicable regulations ensuring that there is no significant adverse impact on biodiversity habitat or any species during operations.

3. With respect to the ecologically sensitive areas reported at Question 11 of Essential Indicators above, provide details of significant direct & indirect impact of the entity on biodiversity in such areas along-with prevention and remediation activities.

AESL, a prominent entity in the power transmission and distribution sector, acknowledges the potential direct and indirect impacts of its operations on biodiversity.

DIRECT IMPACTS

- **Habitat Disruption:** The construction and maintenance of our infrastructure can lead to habitat fragmentation and loss, affecting local flora and fauna.
- **Electrocution and Collision Risks:** Power lines and transmission structures pose risks to birds and wildlife, particularly large birds of prey and migratory species.
- **Pollution:** Operational activities may result in oil spills and chemical contamination, impacting soil and water quality.

INDIRECT IMPACTS

- The reliance on fossil fuel-based power generation contributes to greenhouse gas emissions, **influencing global weather patterns, Climate Change and biodiversity**.
- Research into the long-term effects of **Electromagnetic Fields (EMF)** from power lines is ongoing, with potential impacts on wildlife behavior and reproduction.

MITIGATION EFFORTS

- We believe in **Habitat Conservation and Restoration**, hence create wildlife corridors and buffer zones and engage in **reforestation and afforestation projects**.
- **Bird Protection Measures** such as Bird diverters and bird-safe infrastructure designs are implemented to reduce electrocution and collision risks.
- Our protocols **prevent and manage pollution** through eco-friendly materials and technologies.
- We believe in **Collaborative Efforts** and hence, partner with environmental organizations, local communities, and governmental bodies to enhance conservation efforts.
- Continuous **research and monitoring** improve our understanding of impacts and the effectiveness of mitigation strategies.

AESL remains dedicated to minimizing its ecological footprint and fostering biodiversity conservation through prevention, remediation, and continuous improvement. Balancing industrial development with environmental stewardship is central to our operations and corporate philosophy.

Employees are trained and guided to implement biodiversity-friendly practices, such as avoiding sensitive habitats, utilizing eco-friendly technologies, and minimizing disturbances to wildlife.

4. If the entity has undertaken any specific initiatives or used innovative technology or solutions to improve resource efficiency, or reduce impact due to emissions / effluent discharge / waste generated, please provide details of the same as well as outcome of such initiatives, as per the following format:

Sl No	Initiative undertaken	Details of the initiative (Web-link, if any, may be provided along with summary	Outcome of the initiative
Refer the Environment section Page 158 to 197			