

# Welcome to your CDP Climate Change Questionnaire 2023

## C0. Introduction

### C0.1

#### **(C0.1) Give a general description and introduction to your organization.**

Adani Ports and Special Economic Zone Limited (APSEZ) is the largest commercial ports operator in India accounting for nearly one-fourth of the cargo movement in the country. With a national presence across 14 domestic ports in seven states - Gujarat, Maharashtra, Goa, Kerala, Andhra Pradesh, Tamil Nadu, and Odisha - APSEZ boasts of an extensive footprint with excellent hinterland connectivity. The port facilities are equipped with top-of-the-line cargo-handling infrastructure, enabling them to handle the largest vessels that call at Indian shores. APSEZ's ports can handle a variety of cargos, including dry cargo, liquid cargo, crude, and containers.

Over time, APSEZ has transformed into a provider of integrated port infrastructure services, with the Mundra SEZ in Gujarat serving as a landmark testament. The Mundra Economic Hub covers more than 8,000 hectares and provides investment opportunities as the largest multi-product SEZ, Free Trade and Warehousing Zone (FTWZ), and Domestic Industrial Zone.

APSEZ's integrated services across three verticals - Ports, Logistics, and SEZ - have allowed it to form partnerships with prominent Indian businesses, solidifying its position as an undisputed leader in the Indian port sector.

APSEZ has an established Environmental and Social Management System (ESMS) for its business activities to increase compliance, enhancement of corporate governance, reduce environmental, occupational and community health, safety risks.



In line with our goal to build resilience towards climate change and commitment to reduce our impact on the environment, we undertake several measures including process improvements and technology integration. We accomplish this by improving process efficiencies, investing in electrification of port infrastructure, and setting up renewable energy plants wherever feasible.

APSEZ has achieved several overarching milestones:

- First Indian Port who has signed up Business ambition for 1.5°C.
- 20 MW of total renewable installed capacity and 15 MW of renewable energy procurement
- 14% of renewable energy share in total electric energy
- APSEZ is signatory to the UNGC and discloses its performance against the 10 UNGC principles
- APSEZ is member of IUCN and working towards conserving and improving the biodiversity in the areas we operate.
- APSEZ has signed commitment to set the emission reduction targets under SBTi for net zero. The target setting is in progress and same will be submitted to SBTi for validation.
- We have taken a target to achieve zero waste to landfill goal across all the port locations. Six sites (Mundra, Ennore, Dhamra, Goa, Tuna and Kattupalli sites) have been assessed by CII as per ZWL framework and the certification is awaited.
- Ranked first globally across all the Emerging Markets in the Transport & Logistics sector by Moody's ESG Solutions in its latest assessment for 2022.
- APSEZ has been conferred with national CSR Award by The President of India for the exemplary work done by the Company for the communities in the areas we operate.

## C0.2

**(C0.2) State the start and end date of the year for which you are reporting data and indicate whether you will be providing emissions data for past reporting years.**

### Reporting year

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**Start date**

April 1, 2022

**End date**

March 31, 2023

**Indicate if you are providing emissions data for past reporting years**

Yes

**Select the number of past reporting years you will be providing Scope 1 emissions data for**

5 years

**Select the number of past reporting years you will be providing Scope 2 emissions data for**

5 years

**Select the number of past reporting years you will be providing Scope 3 emissions data for**

2 years

### **C0.3**

**(C0.3) Select the countries/areas in which you operate.**

India

### **C0.4**

**(C0.4) Select the currency used for all financial information disclosed throughout your response.**

INR

### **C0.5**

**(C0.5) Select the option that describes the reporting boundary for which climate-related impacts on your business are being reported. Note that this option should align with your chosen approach for consolidating your GHG inventory.**

Operational control

### **C0.8**

**(C0.8) Does your organization have an ISIN code or another unique identifier (e.g., Ticker, CUSIP, etc.)?**



Indicate whether you are able to provide a unique identifier for your organization	Provide your unique identifier
Yes, an ISIN code	INE742F01042

## C1. Governance

### C1.1

**(C1.1) Is there board-level oversight of climate-related issues within your organization?**

Yes

#### C1.1a

**(C1.1a) Identify the position(s) (do not include any names) of the individual(s) on the board with responsibility for climate-related issues.**

Position of individual or committee	Responsibilities for climate-related issues
Board-level committee	<p>At the Board level, we have a Corporate Responsibility Committee (CRC) which is responsible for overseeing the implementation of our ESG and climate change related strategy and policies, including managing climate related transition risks, and ensuring alignment of sustainability standards and climate-related risks and opportunities with our business. The committee has approved our Environmental, Energy and Emission, and Water Stewardship policies. The members of the CRC are accountable for delivering against our climate targets, and the committee ensures that sustainability is operationalized as part of our business strategy by overseeing sustainability strategies, policies, and practices. On a quarterly basis, the CRC updates the Board on progress towards our climate-related targets and our goal of achieving net-zero by 2040. The Board is responsible for overseeing the Company's long-term sustainability interests and overall success, serving as the ultimate decision-making body, and meeting at least once a quarter. Additionally, the Board is supported by a Risk Management Committee (RMC) that monitors organizational performance, adherence to standards, and risks. For example, under the purview of the CRC, APSEZ could achieve the following during our reporting period:</p> <p>a. We have achieved 46% reduction in energy intensity aligned with our 2025 of reducing 50% energy intensity from base year FY</p>

	<p>2016.</p> <p>b. Achieved switch from fossil fuel to electricity with purchase of 338 electric ITVs for Mundra, Hazira, Kattupalli &amp; Ennore operations. Other equipment like RTGs and quay cranes have been fully electrified.</p> <p>c. APSEZ has joined IUCN and is working towards conserving and enhancing biodiversity in the areas where we operate.</p>
<p>Chief Executive Officer (CEO)</p>	<p>Our CEO holds the ultimate responsibility for climate change and has the highest decision-making authority within the company. As a member of the Board of Directors, our CEO holds the highest executive-level responsibility for ensuring the operationalization of our sustainability strategy, including our climate strategy. The cross-functional executive Sustainability Leadership Committee (SLC), which is chaired by our CEO, oversees the implementation of our ESG and sustainability strategy, policies, and practices. The SLC also reviews and reports to the Board, with quarterly updates and feedback provided by the Board. In Board meetings, the CEO acts as the representative of the SLC. Furthermore, as an overseer of climate-related issues in the company, the CEO is responsible for ensuring that our strategies, policies, and practices on sustainability matters are aligned with APSEZ's sustainability frameworks, risks, standards, priorities, and community-led initiatives and partnerships. Additionally, the CEO is tasked with reviewing and reporting to the Board on our performance regarding key international sustainability trends, benchmarking against peers, and making public disclosures on our sustainability performance.</p> <p>During FY 2022-23 under the realm of our CEO, we have achieved the following:</p> <ul style="list-style-type: none"> <li>a. 22 MW of total renewable installed capacity</li> <li>b. 6.44% of the total energy requirement are fulfilled by renewable sources.</li> <li>c. Six Zero Waste to Landfill Certifications across the sites (Mundra, Tuna, Kattupalli, Ennore, Goa &amp; Dhamra)</li> <li>d. APSEZ is signatory to IBBI and discloses its information as per the IBBI reporting framework.</li> <li>e. Introduction of the 9 Electric cars across the sites (Mundra, Krishnapatnam &amp; Kattupalli)</li> <li>f. Electrification of the 9 diesel-based cranes.</li> <li>g. Conversion of conventional lights to LEDs across the sites.</li> <li>h. Automation of the process for energy optimization hence the emissions.</li> </ul>

## C1.1b

**(C1.1b) Provide further details on the board's oversight of climate-related issues.**

Frequency with which climate-related issues are a scheduled agenda item	Governance mechanisms into which climate-related issues are integrated	Please explain
Scheduled – all meetings	Reviewing and guiding annual budgets Overseeing major capital expenditures Overseeing acquisitions, mergers, and divestitures Reviewing innovation/R&D priorities Overseeing and guiding employee incentives Reviewing and guiding strategy Overseeing and guiding the development of a transition plan Monitoring the implementation of a transition plan Overseeing the setting of corporate targets Monitoring progress towards corporate targets Overseeing and guiding public policy engagement	<p>We have Corporate Responsibility Committee (CRC) at the Board level to ensure that our business is strategically aligned with sustainability targets, including climate-related targets. This committee oversees our positions and practices on sustainability issues, particularly those related to climate change and ESG matters that affect shareholders. The Sustainability charter of the CRC outlines the committee's responsibilities, which include approving a strategy for discharging the Company's corporate and social responsibilities and overseeing strategies, activities, and policies regarding sustainable organization including climate change-related policies and partnerships to achieve climate goals. The committee also monitors sustainability risks related to supply chain, climate disruption, and public policy. Furthermore, the committee identifies and monitors external developments that may impact APSEZ's reputation, and reviews climate-related disclosures, such as climate-related risks, targets &amp; metrics, water consumption, energy use, and communications to stakeholders on climate-related activities.</p> <p>The CRC also approves major capital investments towards achieving sustainability goals, including climate goals, oversees the Company's program for ESG (including Climate), and seeks feedback on the same to make further improvement programs. The committee also monitors and oversees progress on sustainability goals, including climate goals and targets. The CRC meets quarterly, and its minutes are reviewed by the Board at its subsequent meetings. In addition, the Board of Directors reviews monthly sustainability reports. The Merger &amp; Acquisition Committee, comprising three members, with a majority of Independent Directors, reviews proposals related to mergers, acquisitions, investments, or divestments and recommends relevant opportunities to the Audit Committee/Board, if deemed fit, after considering key risks and opportunities, risk appetite, tolerance, and the integration plan.</p> <p>The Committee convenes every quarter, and the minutes of their meetings are reviewed at subsequent Board meetings. Additionally, the Board of Directors reviews monthly sustainability reports. The Merger &amp; Acquisition Committee, composed of three members with a majority of</p>

	<p>Overseeing value chain engagement</p> <p>Reviewing and guiding the risk management process</p>	<p>Independent Directors, reviews proposals related to mergers, acquisitions, investments, or divestments (collectively referred to as "Transactions"), including assessing key risks and opportunities, risk appetite and tolerance, and integration plans. The committee may recommend relevant opportunities to the Audit Committee or Board as deemed appropriate.</p>
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## C1.1d

### (C1.1d) Does your organization have at least one board member with competence on climate-related issues?

	Board member(s) have competence on climate-related issues	Criteria used to assess competence of board member(s) on climate-related issues
Row 1	Yes	<p>The Nomination and Remuneration Committee (NRC) of the company is comprised solely of independent directors. Its main responsibility is to screen and select suitable candidates based on defined criteria and recommend them for induction to the Board. The committee evaluates the knowledge, skills, industry, and sector expertise of potential Board members. The committee then recommends the specific requirements for each appointment according to the evaluation. It also ensures that all potential candidates meet APSEZ's rules and requirements for the position. NRC recommended three independent directors for the Corporate Responsibility Committee (CRC), all of whom have experience in risk management including ESG and industry relevance. Before joining the CRC, these directors underwent a detailed induction and familiarization program, as well as deep dives and immersion sessions on Climate Strategy and Performance and other climate-related issues that affect our company.</p> <p>For the financial year ended 31st March 2023, the Board engaged Talentonic HR Solutions for facilitating Board evaluation. The evaluation process focused on Board dynamics and involved independent discussions with all Board members. A detailed Board effectiveness assessment questionnaire was developed based on the criteria and framework adopted by the Board. One-to-one discussions with the Board of Directors and discussions were held on five key themes i.e., size and structure of the Board, Board involvement in strategy, quality of Board discussions, Board leadership and organization health and talent. The outcomes of the evaluation process were discussed with the Board and further actions were agreed upon.</p>

## C1.2

**(C1.2) Provide the highest management-level position(s) or committee(s) with responsibility for climate-related issues.**

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### **Position or committee**

Chief Executive Officer (CEO)

### **Climate-related responsibilities of this position**

Managing annual budgets for climate mitigation activities

Managing major capital and/or operational expenditures related to low-carbon products or services (including R&D)

Managing climate-related acquisitions, mergers, and divestitures

Providing climate-related employee incentives

Developing a climate transition plan

Implementing a climate transition plan

Integrating climate-related issues into the strategy

Conducting climate-related scenario analysis

Setting climate-related corporate targets

Monitoring progress against climate-related corporate targets

Managing public policy engagement that may impact the climate

Managing value chain engagement on climate-related issues

Assessing climate-related risks and opportunities

Managing climate-related risks and opportunities

### **Coverage of responsibilities**

### **Reporting line**

Reports to the board directly





### **Frequency of reporting to the board on climate-related issues via this reporting line**

Quarterly

### **Please explain**

CEO is the Chairman of the cross-functional Sustainability Leadership Committee (SLC) and is responsible for ensuring the operationalization of Sustainability as part of our business strategy. Our CEO is a member of the Board of Directors and represents the SLC at the Board. In FY21, CEO decided that the company should join CEO water mandate and became a signatory. CEO has the following key responsibilities:

- Oversees strategies, policies, and practices on sustainability matters to attain APSEZ's Sustainability frameworks, risks, standards, priorities, and community-led initiatives & partnerships.
- Reviews and reports to the Board on APSEZ's performance; key international sustainability trends, benchmarking against peers; public disclosures.

The CEO provides quarterly briefings to the Board on climate-related related issues, yearly targets, performance, and progress on targets.

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### **Position or committee**

Corporate responsibility committee

### **Climate-related responsibilities of this position**

Managing annual budgets for climate mitigation activities

Implementing a climate transition plan

Conducting climate-related scenario analysis

Monitoring progress against climate-related corporate targets

Managing value chain engagement on climate-related issues

Assessing climate-related risks and opportunities

Managing climate-related risks and opportunities

### **Coverage of responsibilities**

### **Reporting line**

Reports to the board directly

**Frequency of reporting to the board on climate-related issues via this reporting line**

Quarterly

**Please explain**

Ensuring strategic alignment of sustainability and water security with the business, Board of Directors delegated to the Corporate Responsibility Committee (CRC) matters related to ESG and sustainable management. The CRC has an oversight of all material sustainability topics, including climate, water, human rights, community etc. It addressed risks and opportunities towards sustainability strategy, policy, environmental and social compliance. The committee also monitors and oversees progress on the sustainability goals, including climate-related goals and targets. The Board oversees interest in long-term sustainability and overall success of Company's business. It serves as ultimate decision-making body of the Company and meets once in a quarter. In response to the changing landscape of business environment, Company has a well-established governance structure that reviews and evaluates various potential risks that may impact financial bottom line of Risk management committee at the board level oversees the risk.

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**Position or committee**

Chief Risks Officer (CRO)

**Climate-related responsibilities of this position**

- Developing a climate transition plan
- Integrating climate-related issues into the strategy
- Assessing climate-related risks and opportunities
- Managing climate-related risks and opportunities

**Coverage of responsibilities**

**Reporting line**

CEO reporting line



**Frequency of reporting to the board on climate-related issues via this reporting line**

Quarterly

**Please explain**

From the executive team, ESG Head (Chief Risk Officer) has the responsibility of business risk management and reports to CEO-APSEZ to ensure independence from other functions. The main responsibilities of ESG Head are the following:

- Development and implementation of water governance policies, system, framework, site specific management plan
- Setting the business and site level goals and target
- Identification of climate related risk and management strategy
- Capacity building at all levels on various climate related aspects
- Climate related policy advocacy at national global level
- Water and Climate related regulatory & voluntary disclosures

Co-ordination with stakeholders at all levels on ESG aspects including climate (investor, regulatory agencies, community, global forums, etc.)

**C1.3**

**(C1.3) Do you provide incentives for the management of climate-related issues, including the attainment of targets?**

	<b>Provide incentives for the management of climate-related issues</b>	<b>Comment</b>
Row 1	Yes	APSEZ considers Climate Change as a material issue and the long-term strategy is to target net zero. Hence, to create a mass engagement, harness all possible corners, promote internal collaborations, and seek innovations to leverage digitalization in an accelerated manner, etc. The company is taking significant steps to bring awareness, build inclusiveness, and thereby create an environment that can respond to the biggest environmental challenge of our times.

## C1.3a

**(C1.3a) Provide further details on the incentives provided for the management of climate-related issues (do not include the names of individuals).**

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**Entitled to incentive**

Chief Executive Officer (CEO)

**Type of incentive**

Monetary reward

**Incentive(s)**

Bonus - % of salary

Shares

**Performance indicator(s)**

Achievement of climate transition plan KPI

Progress towards a climate-related target

Achievement of a climate-related target

Implementation of an emissions reduction initiative

Reduction in absolute emissions

Reduction in emissions intensity

Energy efficiency improvement

Increased share of low-carbon energy in total energy consumption

Increased share of renewable energy in total energy consumption

Reduction in total energy consumption

Increased engagement with suppliers on climate-related issues

Company performance against a climate-related sustainability index (e.g., DJSI, CDP Climate Change score etc.)

**Incentive plan(s) this incentive is linked to**

Both Short-Term and Long-Term Incentive Plan

**Further details of incentive(s)**

For CEO-APSEZ, the variable pay is linked to the financial and ESG indicators including but not limited to - Revenue, EBIDTA, ROCE, Health & Safety, Energy Intensity, and Water Intensity. On the recommendation of the Nomination and Remuneration Committee, the remuneration paid/ payable by way of salary, perquisites, and allowances (fixed component), incentive and/or commission (variable components), to its Executive Directors within the limits prescribed under the Act is approved by the Board of Directors and by the shareholders in the General Meeting.

**Explain how this incentive contributes to the implementation of your organization's climate commitments and/or climate transition plan**

Climate change incentives given at CEO in the organization highlighted the importance of sustainability and climate action at the highest level of leadership. As the top decision-maker, CEO has a significant influence on the organization's strategic direction and resource allocation. Providing climate change incentives to CEO, it sent a strong signal that addressing climate change is a priority and integral to our business strategy. As CEO play a crucial role in setting the tone and driving the implementation of climate commitments and transition plans throughout the organization. Incentives motivated CEO to actively champion sustainability initiatives, allocate resources towards green projects, and prioritize the integration of climate considerations into decision-making processes. Moreover, climate change incentives encouraged CEO to engage with stakeholders, establish partnerships, and lead by example in driving sustainable practices. By linking incentives to climate goals, APSEZ ensured that CEO are accountable for their actions and outcomes in addressing climate change.

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**Entitled to incentive**

All employees

**Type of incentive**

Monetary reward

**Incentive(s)**

Bonus - % of salary

**Performance indicator(s)**

Achievement of climate transition plan KPI  
Progress towards a climate-related target  
Implementation of an emissions reduction initiative  
Energy efficiency improvement  
Increased share of low-carbon energy in total energy consumption  
Increased share of renewable energy in total energy consumption  
Reduction in total energy consumption

**Incentive plan(s) this incentive is linked to**

Both Short-Term and Long-Term Incentive Plan

**Further details of incentive(s)**

The Company encouraged talent through a variable compensation structure across all management levels. The employees in O1 to E1 grades have 10% CTC component as a performance-based incentive; employees in E2 to E4 grades have 15% of CTC component. This component was paid as per individual ratings on a 4-point scale of the Performance Management System. For GM and above, performance-based pay is based on organisational and individual performance. Performance on ESG parameters is also a factor that determined variable rewards of GM- and above employees. Qualitative adjustments on account of ESG and safety is incorporated as a part of this exercise.

The Company's Performance Pay is determined by the summation of two factors - Individual Performance (70%) comprised individual goals; ESG performance and organisation performance (30%); business goals and financial performance with a weightage of revenue (50%), EBITDA (25%) and RoCE (25%). Executive compensation is tied to ESG performance, including performance on climate change metrics. In addition, there are several award and recognition programs that monetarily incentivize employees on submission of implementable ideas, performance achievement.

For example,

1. MADHYAM is an on-line reward scheme introduced at Group level in the year 2016. The objective of Madhyam is to provide employees with a channel to share their ideas, suggestions and insights to the Chairman, on strategy, operations, organization and technology. Based on the value addition or impact of the idea, it passes through various levels. Ideas are further categorized into three categories based on the level of impact, financial impact and the impact sphere i.e. group, business or department level impact.

The financial incentive for the idea ranges from INR 5000 to INR 50000. Chairman awards the employee if the idea is implemented on ground.

2. We have formed an Innovation Counsel under which ideas on 6 key focus areas which include efficiency and decarbonization and associated



areas can as well be proposed. Proposed Ideas are evaluated and if found suitable, will be funded by the organization and on successful completion of the project, the individual will be recognized and rewarded.

**Explain how this incentive contributes to the implementation of your organization’s climate commitments and/or climate transition plan**

Providing climate change incentives in an organization is crucial for driving climate action, aligning interests, fostering accountability, encouraging innovation, attracting and retaining talent, enhancing reputation, and contributing to the global effort. These incentives served as powerful tools to motivate employees at all levels, ensuring that sustainability and climate considerations are prioritized. By aligning the interests of individuals with the organization's climate goals, incentives create a sense of accountability, encouraging employees to take ownership of their contributions. Furthermore, climate incentives stimulate innovation by rewarding employees who develop creative and sustainable solutions, fostering a culture of continuous improvement. The presence of climate incentives also enhances our ability to attract and retain top talent, as many individuals seek purpose-driven work. By demonstrating a commitment to climate action, we can enhance our reputation, gaining trust and loyalty from customers, investors, and stakeholders.

## C2. Risks and opportunities

### C2.1

**(C2.1) Does your organization have a process for identifying, assessing, and responding to climate-related risks and opportunities?**

Yes

#### C2.1a

**(C2.1a) How does your organization define short-, medium- and long-term time horizons?**

	From (years)	To (years)	Comment
Short-term	0	3	Short-term impacts refer to climate-related risks and opportunities that are projected to affect our business within the next 0 to 3 years.

Medium-term	3	10	Climate-related business risks and opportunities with the potential to affect the company's operations within a timeframe of 3 to 10 years have been classified as medium-term impacts.
Long-term	10	20	Long-term business risks and opportunities are forward-looking assessments that are based on sector trends, market predictions, and other relevant factors. Likewise, climate risks and opportunities that are identified to have an impact over a span of 10 to 20 years or beyond are categorized as long-term.

## C2.1b

### (C2.1b) How does your organization define substantive financial or strategic impact on your business?

Through a well-defined review procedure of all risks, APSEZ determines meaningful financial or strategic effect on its business. APSEZ has adopted a 5-step ERM method in this situation. The main pillars of the APSEZ ERM process are ISO standards. The five-step ERM procedure has been implemented in many places. A bottom-up methodology is used to identify risks at the Business Unit (BU) level, and these risks are then escalated and aggregated at the APSEZ level. A top-down strategy that involves discussion among the SLT (Senior Leadership Team) on the long-term, emergent, and strategic risks facing the organization completes it. This two-pronged strategy guarantees thorough risk identification and reduces blind spots.

According to the APSEZ ERM procedure, the likelihood and effect of risks connected to climate change are allocated to calculate the risk score. Rating parameters are assigned post a rigorous due-diligence process including scenario-analysis to stress test the assumptions and assess various pathways in which the risk may play out. The impact is assessed based on five metrics – financial, market/ customer, Brand/ reputation, Environment and Business Continuity. The worst-case risk scenario is considered for assigning the risk impact.

Likelihood is assessed on the 5-point scale which spans from 1 (rare) to 5 (almost certain).

Risk score is the product of likelihood and impact score. Risk Heat Map is used to visually depict the comparative severity of the risks. It is a two-dimensional, 5x5 matrix with likely-hood and impact as the two axes.

For climate risk, the severity and likelihood are identified, and weightage is provided as below:

30% weightage is given to the likelihood of occurrence of a risk scenario occurring and 70% weightage is given to the severity of the scenario. For climate change, the reduction of emissions and resilience are two important factors. Thus, the likelihood of occurrence of any one of the below is considered a high-risk scenario:

- Contribution from Scope 1 emission is greater than 30% of total scope 1 and scope 2
- Renewable Energy Share: < 15 %



c) Fuel Energy consumed is more than 50% of total energy consumed

d) In last 10 Years if the likelihood has impacted from the below point:

1. Cyclone Frequency and Wind Hazard: High Damage Risk Zone ( $V_b \geq 47$  m/s)

2. Drought - > 1

3. Incidents of Tsunami - > 1

e) Probability of occurrence is greater than 0.6 for acute and chronic physical hazards (in terms of severity) under the projected scenarios in comparison to the baseline period

Substantive financial or strategic impact:

During our climate risk assessment, APSEZ defines substantive financial or strategic impact on the business when any of the above issues might bring a change in the following:

1. Change of  $\pm 1\%$  to the EBITDA in the reporting year,

2.  $>1\%$  change in our monthly cargo facilities

3. Three days of complete shutdown of any one of our operations due to cyclone or natural disaster in a year.

4.  $>0$  Occurrence of fatality within our operations

5. Any significant breaches and financial penalties  $> \text{INR } 1,000,000$

For example: In May 2022, Asani cyclone had hit Dhamra port which had disrupted Dhamra Port's operations by 30 hours. This temporary shutdown for 30 hours at Dhamra port led to loss of INR 54,500,000. APSEZ had a cyclone preparedness and disaster plan ready. Therefore, the port was operational within not more than 30 hours. If the port did not have cyclone/disaster preparedness, it could have incurred revenue loss of  $>3$  days due to complete shutdown of the port.

## C2.2

**(C2.2) Describe your process(es) for identifying, assessing and responding to climate-related risks and opportunities.**

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### Value chain stage(s) covered

Direct operations

Upstream

Downstream

**Risk management process**

Integrated into multi-disciplinary company-wide risk management process

**Frequency of assessment**

More than once a year

**Time horizon(s) covered**

Short-term

Medium-term

Long-term

**Description of process**

To manage risks effectively, we have a systematic risk management process in place. Our Enterprise Risk Management (ERM) framework follows both top-down and bottom-up approaches. In the bottom-up approach, employees highlight risks based on their circle of competence, while the senior management designs counter-risk initiatives with approval from the Board. Once risks are identified, the functional teams at the site level implement mitigation measures with oversight from the corporate team.

From the executive team, business risk management is the responsibility of ESG Head (Chief Risk Officer) with the reporting to CEO-APSEZ to ensure independence from other functions. All Environment, social, and governance risks also follow the ERM framework. We apply risk assessment tool to all our operations. Overall, 14 types of risk areas have been identified by the APSEZ risk team. Climate change is one of the 14 risks. Identification of Risks against these 14 areas is done at Site level and functional level as per the defined risk recording process more than once every year. It is further reviewed and deliberated at corporate level and combined discussion between corporate and site level before finalization of risk. During the period under review, the Risk Management Committee held four meetings. The material risks faced by the Company were identified and assessed. The Company set up a policy framework for ensuring better management of risk profile including climate-related risks.

The Company has instituted a systematic risk management approach which comprises the creation of a Group level Risk Management Team to appraise changes in the external and internal business environments as and when they transpire (real-time) and implement countermeasures. The ERM and risk assurance procedure is integrated with the business planning and compliance functions. In recent times, climate-related risks

became important to APSEZ's risk management process. The ESG Head engages with the Risk Management and Audit Committee on all climate change risks and includes and updates them in the company's Enterprise risk management. Chief Executive Officer (CEO) at the business unit level and site-level Environment, Health and Safety (EHS) Team are responsible to identify and respond to climate change risk at the site level along with cross-functional teams.

In FY 2021-22, we have conducted our first climate change scenario planning study. Recognising the financial implications and business risks of climate change, APSEZ conducted Climate Change Vulnerability Risk Assessment Study for the infrastructure related to its port operations. The study was aligned with IPCC and best practices for climate risk analysis considering RCP 4.5 scenarios with timeframes 2021-2050 and 2041-2070, as a means of testing strategic resilience against different plausible and science-based climate change scenarios. The assessment was carried out in phases using methodologies backed by extensive consultation with sectoral and academic experts and climate change simulation modelling agencies. With recent advancements in the field of climate modelling and the latest IPCC assessment report (IPCC AR6), we updated our physical climate risk assessment study with the use of new climate models and scenarios (SSP2-RCP4.5) by including an additional <2degC scenario (SSP1-RCP2.6). The revised study also identified more climate-related risks (physical and transition) and opportunities.

Climate change risks are divided into two parts: transition risks and physical risks. The impact of these risks keeps shifting with time, based on external factors and our resilience to the risks. The magnitude of impact these climate change risks have on our business is assessed through an array of indicators embedded into our risk management tool. We have identified water sources, quantity of water consumed, energy mix and quantity of energy consumed, our emission profile, cost of procuring energy and water resources, cost, complexity, legal, and regulatory dimension of risk, business aspects like cargo mix into the risk matrix. This assessment also provides a direction to prioritization in addressing the risks and anticipating the changes in the climate risks in the future.

Climate change risks are effectively monitored through a comprehensive environmental management system at the site level and reviewed by the Board-level committee:

Corporate Responsibility Committee (CRC), which convenes the Board on a quarterly basis. In the Risk Management Committee, Head ESG (Chief Risk Officer) presents the climate risk. All matters related to climate are discussed at Sustainability Leadership Committee as well. Further, the site-specific -and business-specific responses to climate is the responsibility of the business entity CEO and local EHS team. Climate in many cases requires cross-functional intervention and legal, operations and supply chain team also coordinate for risk mitigation. 'Risk to opportunity' is our approach as we develop and expand our business while integrating our decarbonization strategy into the business.

## C2.2a

### (C2.2a) Which risk types are considered in your organization's climate-related risk assessments?

	Relevance & inclusion	Please explain
Current regulation	Relevant, always included	<p>Across locations, APSEZ is committed to complying with statutory requirements and upgrading its systems from time to time. The company has to comply to regulations such as various Environmental clearances &amp; conditions by MoEF &amp; CC (Ministry of Environment Forests and Climate Change, GoI), Consent to Establish (CTE) and Consent to Operate (CTO) for Indian operations. Any deviation in compliance has the potential to impact the company's operating performance and reputation, adversely.</p> <p>Most international banks have adopted the Equator Principles, whose charter requires new projects financed by these institutions to be compliant with International Finance Corporation (IFC) performance standards. Any non-compliance with Equator Principles may lead to inability to access foreign bank funding. This may increase funding costs as international banks / bond markets will demand higher interest costs to compensate for non-compliance with ESG (Environmental, Social, and Governance) standards.</p> <p>Risk "Development in climate change regulation and disclosure standards reducing access to capital and increase cost of funding" has been identified. APSEZ is actively driving compliance to IFC parameters across locations. Timely assessment of EHS (Environment, Health &amp; Safety) norms as per IFC standard is being done.</p>
Emerging regulation	Relevant, always included	<p>Evolving regulatory framework may have material impact on operations. Deviation in compliance and adherence may also adversely impact reputation.</p> <p>APSEZ quarterly reviews rules and regulations in the space of power, clean energy, water, fossil fuel imports and export relevant to our business. Regulations to contain sectoral emissions are emerging worldwide, and as we expand operations to other geographies, we may face regulations with emission caps. So far, we have not been impacted legally or financially by any such laws and regulations. For us to achieve our climate goal, having climate regulation and policy conducive to generating and purchasing renewable power is vital. As the Indian government further formalizes policies to achieve its NDCs, APSEZ may face direct or indirect prices on its carbon emissions. Anticipating future requirements, we have started to internally price our carbon emissions at the rate of USD20/ ton of all the scope 1 &amp; 2 CO2 emissions from our operations. The equivalent cumulative amount is set aside for investment into renewable projects and energy efficiency</p>

		<p>measures. This helps us partly account for the negative externalities of the use of fossil fuel in exacerbating climate change. It also enables us to evaluate our new low carbon projects from the standpoint of benefits they bring towards climate mitigation.</p> <p>Green Credit programme implementation by MoEF &amp; CC in India primarily on the programs which are relevant to us.</p> <ul style="list-style-type: none"> <li><input type="checkbox"/> Tree Plantation-based Green Credit</li> <li><input type="checkbox"/> Water-based Green Credit</li> <li><input type="checkbox"/> Waste Management based Green Credit</li> <li><input type="checkbox"/> Mangrove Conservation and Restoration based Green Credit</li> </ul> <p>APSEZ is committed to complying with statutory requirements and upgrading its systems from time to time. adoption of low carbon and sustainable development roadmap and use of internal carbon pricing in decision making will enable us to reduce the potential risks that may arise from upcoming regulations without losing competitive edge in international markets.</p> <p>Some of the mitigation measures of emerging regulatory risks APSEZ has taken are as following.</p> <ol style="list-style-type: none"> <li>a. Robust compliance management systems to ensure awareness and compliance through legatrix.</li> <li>b. Technology is being utilized to track compliance, timelines with suitable escalations, action plans and reviews.</li> </ol>
Technology	Relevant, always included	<p>Adoption of new technology is essential for the ports in the low carbon scenario. We see new technologies shaping the day-to-day activities of the ports. Automation and control of operations from remote location, including operating equipment from faraway place, monitoring processes remotely, etc. will be necessary to reduce exposure of port staffs to extreme weather and hence keep the port activities up and running even during harsh weather conditions. The technologies like IoT, 5G networks, big data platforms, trade blockchain solutions will add resilience and improve efficiency of the operations. The shipping, port and logistics sector must also transform to adjust to changing customer preference for greener products and sustainable supply chain. Further, with e-commerce platforms providing wider options to purchase from any part of the world, the flow of high value e-commerce products is more time sensitive than conventional cargo movement, putting extra stress on the just-in-time cargo flows. The transportation requirement for certain products would also see a complete change with technology like 3-D printing which will print 3-D products with perfection at the demand site itself. The push for recycling-reuse of products will also change the demand for certain products.</p> <p>APSEZ committed to upgrade the systems time to time to achieve Operational Excellence through interventions related to Climate change &amp; Energy Efficiency-</p> <ol style="list-style-type: none"> <li>a. Installation of Best Available Technologies</li> </ol>

		<p>b. Mechanization of the berths at the ports</p> <p>c. Replacement of fossil fuel-based equipment with latest technology</p> <p>d. Cargo transfer through the electric vehicle</p> <p>e. Installation of the solar plants at sites to source the renewable energy</p> <p>Attempting and addressing technology risks is now leading us to opportunities. In FY 2022-23, we used internal accruals and debt to invest INR 767.4 crore in projects related to electrification of equipment, rail infra, energy efficiency, emission reduction, environment protection, water management, waste treatment and adaptation to climate change. Overall, INR 384 crore was spent on electrification of equipment of which INR 347.7 crore alone was spent to purchase electric ITVs and develop infrastructure for its charging and maintenance. Around INR 331 crore was spent on different rail projects like electrification and upgradation of existing lines and equipment, which helped reduce energy use through modal shift and efficiency improvements.</p>
Legal	Relevant, sometimes included	<p>Failure to comply with stringent environmental regulations, such as regulations relating to the reduction of water and air pollution and waste management, increases the exposure of our company to legal fines and/or closure of our operations. We regularly monitor air quality and other environmental parameters associated with our operations to ensure compliance with prescribed environmental norms. APSEZ is compliant with all the relevant environmental, water, energy and operational rules &amp; regulations and laws. Any non-compliance on these aspects may adversely impact our operations, create legal risk and hamper our business growth. To ensure that we comply with the applicable laws and regulations, we have established an IT-enabled compliance management system.</p> <p>For example: Some of the cargo like coal which is handled at our ports generates fugitive dust emissions. To prohibit any breach, amongst other management measures we have also installed water spraying system with water and maintain required moisture level and control fugitive emissions as per the Pollution Control Board (PCB) norms. In case of water scarcity/supply shortage this operation may get impacted or legal issues due to dust are likely. So far we have been conscious and have been managing the water for this purpose and hence, no legal issues. Breaching of this norm would lead to heavy penalty which would impact our operating cost.</p>
Market	Relevant, always included	<p>The global markets are undergoing a transformation due to the changing demands of customers and consumers. The shift is influenced by individual choice and the evolving policy landscape marked by the outlook of achieving a net-zero emission world by 2040. It brings around two kinds of shift for us; one- customers looking for more climate-friendly ports, and the second is the need to ensure that our ports are equipped to handle a more diverse portfolio of products. With 40%</p>

		<p>of the global cargo movement being of fossil fuels, the transition in energy system will bring a significant shift away from it. This is both a risk and an opportunity for us. With traditional revenue model at risk there is opportunity in bunkering of renewable energy (like hydrogen).</p> <p>However, diversification away from fossil will require planning and investment for new space and infrastructure that will need policy support from the government. We recorded negative growth of 33.9% in thermal coal traffic in FY22 and it accounted for 26% of our total volume. The share of thermal coal has increased slightly to about 27% in FY23. We have, over the years, shifted away from handling predominantly coal cargo earlier to mixed cargo now. The industry is expected to respond to a reduced demand for oil tankers and coal carriers and deploy more ships for transporting hydrogen, ammonia and alternative fuels and ports must be prepared to handle them too.</p>
Reputation	Relevant, sometimes included	<p>Environmental and climate change performance is increasingly demanded by various stakeholders who seek actions that go beyond mere compliance with regulatory requirements. At our organization, we aspire to surpass regulatory requirements by adopting a proactive and innovative approach towards becoming a global leader. Our climate-related risk assessment indicates that reputation risk poses a medium magnitude threat in the short-term and a high magnitude threat in the long-term. As a result, inaction towards climate change poses a threat to our reputation for high moral values. To mitigate reputational risk from our business, we have implemented several decisions and actions.</p> <p>Example: In FY 2022-23, we assessed our suppliers on pre-defined impact evaluation criteria, and it was observed that one of our suppliers failed to meet the requirements. As a testament to the effectiveness of our supplier engagement efforts and compliance requirements, we have blocklisted the vendor to eliminate any supplier-related risks and reputational risks from the ecosystem. To deepen supplier engagement further, the company is in the process of setting up new systems. We reinforce engagement with specific vendors through various platforms, such as annual vendor meets and supplier vendor audits, to ensure business continuity.</p>
Acute physical	Relevant, always included	<p>In line with UNCTAD's observations in 2017, we acknowledge that rapid growth of coastal urban and industrial development, particularly associated with seaports, poses challenges for coastal systems in effectively responding to climate change.</p> <p>Key findings from the assessment: (a) Coastal transportation assets are more sensitive to extreme events, such as storm surges, waves, heavy rain, wind events, and heat waves, rather than incremental changes in mean climatic factors. (b) Transport services are more susceptible to climate stressors compared to physical assets, as they often have lower</p>

		<p>thresholds for impacts such as delays or cancellations of seaport services. (c) Assets are particularly sensitive to stressors that may have a lower likelihood of occurrence but carry significant risks beyond typical weather variability. (d) Port operations in various regions face challenges due to adverse wave conditions, which can make navigation and berthing of large freight vessels difficult, especially when long-period waves generated by swell waves propagate in groups. (e) Heavy winds can pose challenges for berthing, navigation, and loading/unloading operations at ports.</p> <p>To evaluate strategic resilience against plausible climate scenarios, climate change vulnerability assessment was updated with the latest climate model outputs and scenarios to identify climate-related risks due to acute physical hazards (cyclones, heatwaves and floods). An additional scenario corresponding to less than 2°C warming scenario (SSP1-RCP2.6) is added in addition to the analysis initially conducted using more than 2°C of warming scenario (SSP2-RCP4.5) for two-time frames (2021-2050 &amp; 2041-2070). The changes in acute physical hazards (in terms of severity and frequency) are quantified with respect to the baseline period to identify the impacts of changes in the likelihood of identified risks on APSEZ's direct operations. The assessment subsequently identifies potential financial implications on APSEZ's direct cost, revenue, expenditure, and other indirect costs. Port-wise comprehensive climate adaptation planning assessment for 13 ports and terminals was conducted providing implementation timeframe and expected cost for for adaptive measures. Impact-specific adaptation measures for assets under high and very high-risk categories were identified and are being implemented in a phased manner</p>
Chronic physical	Relevant, always included	<p>Climate change vulnerability assessment revised this year also includes the identification of climate-related risks due to chronic physical hazards (changes in precipitation and temperature patterns and sea level rise). The changes in chronic physical hazards (in terms of severity and frequency) are quantified with respect to the baseline period to identify the impacts of changes in the likelihood of identified risks on APSEZ's direct operations. In comparison to acute hazards, chronic hazards primarily drive long-term strategic financial impacts due to impacts on the current business model and strategy. Our assessment identifies potential financial implications on APSEZ's direct cost, revenue, expenditure, and other indirect costs. Likewise, asset-specific risks and impacts were identified at each port and incorporated in the climate adaptation plan prepared for the 13 ports and terminals. Climate-related risks and resilience strategies identified in the adaptation plan are highly relevant and are always included in discussions related to APSEZ's growth strategy due to the magnitude of associated financial impacts to respond to the risks posed by changes in chronic climatic hazards. Our Climate Vulnerability Risk Assessment showed impact of climate change on port infrastructure and operating conditions in medium timeframe. Sea level rise, storm surges and waves are likely to induce major impacts on coastal</p>



		<p>transport hubs, including transient or permanent flooding of seaports and connecting coastal roads and rail lines. Large increases in coastal urban and industrial development associated with seaports observed in many regions will test the ability of coastal systems to respond effectively to climatic changes. It is evidenced that:</p> <ul style="list-style-type: none"> <li>(a) Coastal transportation assets have been more sensitive to extreme events, such as storm surges/ waves, heavy rain and wind and heat waves, than to incremental changes in the mean climatic factors</li> <li>(b) Transport services are more sensitive to climate stressors than are physical assets, as thresholds e.g. delaying/ cancelling seaport services, are often lower than thresholds for damage to infrastructure</li> <li>(c) Assets are more sensitive to stressors whose occurrence is relatively unlikely in comparison to typical weather variability</li> </ul> <p>To mitigate the risk, APSEZ is investing significantly in the connectivity of hinterlands through railways to reduce the impact of climate stressors and emissions in inland freight transportation.</p>
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## C2.3

**(C2.3) Have you identified any inherent climate-related risks with the potential to have a substantive financial or strategic impact on your business?**

Yes

## C2.3a

**(C2.3a) Provide details of risks identified with the potential to have a substantive financial or strategic impact on your business.**

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**Identifier**

Risk 1

**Where in the value chain does the risk driver occur?**

Direct operations

**Risk type & Primary climate-related risk driver**

Acute physical

Other, please specify

Extreme weather events: Storm surge, cyclone

**Primary potential financial impact**

Decreased revenues due to reduced production capacity

**Company-specific description**

APSEZ, one of the largest port operators in the country, faces substantial risks from extreme climate events, particularly regarding the potential damage to its physical infrastructure. The port operator is vulnerable to a range of extreme weather events such as tropical storms, storm surges, coastal flooding, and intense precipitation. Our port operations are across several states in India, namely Gujarat, Maharashtra, Goa, Kerala, Tamil Nadu, Andhra Pradesh, and Odisha.

In our latest climate related risk assessment aligned with RCP 2.6 and RCP 4.5, it is observed that Dhamra, Murmogao, Dahej, Dighi, and Tuna are the five most exposed ports during the baseline period to multiple acute hazards based on the derived multi-hazard index with Dhamra having very high susceptibility to cyclones.

The consequences of extreme cyclones will vary depending on the geographic location of each port. Cyclones will affect our operations by causing delays and temporary interruptions in cargo handling. Some specific impacts we anticipate include muddy conditions, operational delays, difficulty in executing operations, congestion, limited access, compromised water quality, habitat damage from increased runoff, dredging requirements, and challenges related to disposal of dredged material. Extreme weather conditions corresponding to low-pressure systems may present additional challenges like inundation, navigation and berthing difficulties, increased maintenance dredging, longer operational downtime, excessive sedimentation, and submergence. The identified risks have financial implications that include operational delays and stoppages, damage to infrastructure and components, leading to loss of revenues.

**Time horizon**

Short-term

**Likelihood**

More likely than not

**Magnitude of impact**

Low

**Are you able to provide a potential financial impact figure?**

Yes, an estimated range

**Potential financial impact figure (currency)**

**Potential financial impact figure – minimum (currency)**

398,630

**Potential financial impact figure – maximum (currency)**

225,780,822

**Explanation of financial impact figure**

Based on our climate risk assessment, we are exposed to a revenue loss of INR 4 lakhs to 22 crores per day from the extreme weather events caused by climate change. The loss also includes damage to the equipment, roads and drainage systems due flooding and inundation of the premises. We have capability and vendor base to quickly repair and bring back to work the operations at the ports after any extreme level of damage to the equipment, flooding, dredging requirement and inundation of premise. As a result, we are able to quickly bounce back to keep the disruption to minimum.

In the worst case scenario, a major tropical cyclone on the West Coast could simultaneously affect our operations in Gujarat, Maharashtra and Goa. For example, extremely severe cyclone Biparjoy which made a land fall in Kutch, Gujarat in June 2023, had impacted our operations in the Gujarat State, including our business at Mundra, Hazira, Dahej ports and Tuna terminal. Our operations in Dighi Port in Maharashtra and Mormugao terminal in Goa are also at risk of simultaneously getting impacted by severe cyclones with trail along the coasts of the three states. These 6 ports and terminals namely: Mundra, Hazira, Dahej, Tuna, Dighi and Mormugao on the West Coast together accounted for an annual operating revenue of INR 82,410,000,000 in FY23 and Dighi port contributed INR 145,500,000 operating revenue for FY 2022-23.

Minimum impact:

Annual revenue from Dighi Port= INR 145,500,000

Revenue per day from Dighi Port= INR 145,500,000 / 365 days in a year = INR 3,98,630 per day

Therefore, minimum potential financial cost i.e, business loss would be INR 3,98,630 due to disruption in operations, if the cyclone hits Dighi Port

Maximum impact:

Annual revenue from Mundra, Hazira, Dahej, Tuna, Dighi and Mormugao= INR 82,410,000,000

Revenue per day from Mundra, Hazira, Dahej, Tuna, Dighi and Mormugao= INR 82,410,000,000 /365 days in a year= INR 225,780,822 per day

Therefore, if a cyclone hits the entire west coast of India then APSEZ would have a revenue loss of INR 225,780,822 per day due to disruptions in operations at Mundra, Hazira, Dahej, Tuna, and Mormugao ports.

### **Cost of response to risk**

1,372,000,000

### **Description of response and explanation of cost calculation**

We have developed adaptation plan for the ports based on a comprehensive vulnerability assessment of the operations, assets and infrastructure. In line with the plan, we have invested to build port resilience to withstand or adapt to the extreme climate stressors and recover from any extreme climate events quickly and emerge stronger to cope up better in future. Building resilience involves all the stakeholders that are responsible for planning, financing, operation and maintenance of the port and the allied/ co-located infrastructure. As a result, a holistic approach has been taken that has helped us augment the resilience of the local economy to climate change.

With our adaptation measures we have improved capacity of the port equipment and the allied infrastructure, like roads, rails, drainage systems, etc. to withstand extreme weather events. We have invested INR 1,272,000,000 on different adaptation measures till now out of which INR 263,000,000 were invested in engineering measures, capacity building, like raising awareness, early warning systems, monitoring, etc. and ecosystem-based adaptation measures like mangrove plantation to reduce impacts of storm surge. An investment of INR 1,007,000,000 was made in operational measures which includes strengthening of standard operating measures, periodic maintenance, pre-post events monitoring check, etc. Additionally, we paid premium of about INR 10 crore last year to have insurance against damage to various assets and disruption of operations.

Cost of response to risk = Insurance premium cost+ other climate resilience measures including the OPEX required to maintain the port from extreme weather conditions (cyclones/storms) = INR 10,000,000 + INR 1,272,000,000 = INR 1,372,000,000

### **Comment**

APSEZ has conducted a comprehensive climate risk and vulnerability assessment for all its ports. This study follows the recommendations of the Task Force on Climate-related Financial Disclosures (TCFD) and the climate risk assessment framework provided by the Intergovernmental Panel on Climate Change (IPCC). The assessment focuses on evaluating physical climate risks, including both acute events (such as extreme weather) and chronic events (such as slow-onset changes).

By considering projected climate scenarios (SSP1-RCP2.6 and SSP2-RCP4.5), the study identifies the assets that are at risk to these physical hazards. It also includes an assessment of relative vulnerability and exposure, analysing workforce and asset infrastructure factors that contribute to overall vulnerability. This involves evaluating location-specific, asset-specific, and workforce-based sensitivity, as well as the current adaptive capacity of each location.

In response to the identified climate-related risks, APSEZ have proposed adaptation measures that primarily focus on operational and engineering-based solutions. Most of these measures can be incorporated into our regular activity timelines, with around 50% of them achievable in the short to medium term. Since these interventions primarily require operational actions involving human resources and time, they can be implemented with minimal investment.

To conduct this detailed assessment, APSEZ engaged a team of technical climate experts who provided support in analysing climate risks and integrating climate strategy into the company's business risk management approach. The cost associated with this response includes expenses related to the climate risk assessment study and potentially increasing insurance coverage for all assets.

## **C2.4**

**(C2.4) Have you identified any climate-related opportunities with the potential to have a substantive financial or strategic impact on your business?**

Yes

## C2.4a

**(C2.4a) Provide details of opportunities identified with the potential to have a substantive financial or strategic impact on your business.**

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**Identifier**

Opp1

**Where in the value chain does the opportunity occur?**

Direct operations

**Opportunity type**

Energy source

**Primary climate-related opportunity driver**

Use of lower-emission sources of energy

**Primary potential financial impact**

Returns on investment in low-emission technology

**Company-specific description**

At our ports, ships currently rely on fossil fuels during berthing. As zero-carbon technologies continue to advance, ships will increasingly depend on ports for green fuel refuelling, onshore renewable power supply, carbon capture and storage (CCS), and waste recycling and disposal. By timely adopting these technologies, APSEZ can benefit from the transitioning shipping sector. Conversely, if we fail to take action to meet the evolving demands, we risk losing customers to our competitors.

Developing the necessary infrastructures for these services requires significant investment and a considerable construction period. Therefore, a clear transition pathway and policy certainty are crucial for effective planning and long-term investment. It's worth noting that no clear winner has emerged in the technology space for a clean, feasible, scalable, and cost-effective alternative to traditional bunker fuel, further complicating the planning process.

However, we see a higher opportunity in the deeper decarbonization of the shipping sector. In the realm of onshore power supply alone, there is a potential opportunity for our business. As we continue to electrify our operations with renewable energy, APSEZ can explore the option of charging for providing green onshore power to incoming ships. This investment in low-emission technology has the potential to yield positive returns for the organization.

**Time horizon**

Medium-term

**Likelihood**

Likely

**Magnitude of impact**

High

**Are you able to provide a potential financial impact figure?**

Yes, a single figure estimate

**Potential financial impact figure (currency)**

2,310,638,562

**Potential financial impact figure – minimum (currency)**

**Potential financial impact figure – maximum (currency)**

**Explanation of financial impact figure**

The total installed capacity required to meet the power demand with solar & wind will be 220MW

Assumptions for power opportunity:

1. Total power consumption= 385106427 KWh
2. Average cost savings/KWh= INR 6/KWh

Hence, total potential opportunity per year = INR 6/KWh\* 385106427KWh= INR 2,310,638,562

**Cost to realize opportunity**

8,792,400,000

**Strategy to realize opportunity and explanation of cost calculation**

The power required to meet the power demand with solar and wind will be 385106427KWh.

Load Factor = (Total energy output from solar panels) / (Maximum possible energy output from solar panels)

We have calculated 'Cost to realize opportunity' by the following assumptions:

a. Total installed capacity required to meet APSEZ's power requirement=  $(38,51,06,427 * (100/20))/(365*24*1000) = 220$  MW

b. Cost requires for installation per MW capacity =INR 60,000,000

c. Cost required for establishment of total requirement =  $220*60,000,000 =$  INR 13,200,000,000

Therefore, cost to realize opportunity= INR 13,200,000,000

Based on the above calculation, the pay back period for the stated investment is around 6 years

**Comment**

## C3. Business Strategy

### C3.1

**(C3.1) Does your organization's strategy include a climate transition plan that aligns with a 1.5°C world?**

Row 1

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**Climate transition plan**





Yes, we have a climate transition plan which aligns with a 1.5°C world

**Publicly available climate transition plan**

Yes

**Mechanism by which feedback is collected from shareholders on your climate transition plan**

We have a different feedback mechanism in place

**Description of feedback mechanism**

APSEZ holds quarterly investor meetings to discuss the company's performance. During these meetings, presentations are made to shareholders, highlighting the company's financial performance, and providing updates on various aspects, including Environmental, Social, and Governance (ESG) targets and goals. This includes progress made on climate-related targets that are aligned with Science-Based Targets Initiative (SBTi), Net-Zero objectives, and APSEZ's Sustainability Goals.

In our TCFD (Task Force on Climate-related Financial Disclosures) and Integrated Annual Report for FY 2022-23, we provide comprehensive details about our climate strategy, goals, and targets. We also report on our progress towards achieving Carbon Neutrality, as well as various risks, opportunities, and adaptation plans related to climate change. Copies of these reports, along with quarterly operational and financial highlights, are shared with our shareholders. These reports are available on our company website for wider accessibility.

**Frequency of feedback collection**

More frequently than annually

**Attach any relevant documents which detail your climate transition plan (optional)**

 APSEZ TCFD Report - 2023.pdf

**C3.2**

**(C3.2) Does your organization use climate-related scenario analysis to inform its strategy?**

	Use of climate-related scenario analysis to inform strategy
Row 1	Yes, qualitative and quantitative

## C3.2a

### (C3.2a) Provide details of your organization’s use of climate-related scenario analysis.

Climate-related scenario	Scenario analysis coverage	Temperature alignment of scenario	Parameters, assumptions, analytical choices
<p>Transition scenarios Customized publicly available transition scenario</p>	<p>Company-wide</p>	<p>1.5°C</p>	<p>For the assessment of climate-related transition risks arising for our business, we have considered global transition to a 1.5°C consistent pathway in 2040. Aligning to this APSEZ has identified and assessed transition risks emerging from climate change scenario corresponding to a 1.5°C warming scenario for two-time periods: 2020-2039 and 2040 to 2050 for the following:</p> <ul style="list-style-type: none"> <li>a. Identified the emerging climate-related regulations aligned with NDCs and commitments towards Net-zero by 2050.</li> <li>b. Included all the policies, regulations, standards, and transition to technological risk that may impact our business</li> <li>c. Evaluated the market, reputational and change in customer preference and financial impact on the business</li> </ul> <p>Assumptions considered in the transition scenario analysis:</p> <ol style="list-style-type: none"> <li>1. APSEZ targets a complete shift from the current 20% renewable electricity share to be around 100% for all operations.</li> <li>2. APSEZ may face direct or indirect prices on its carbon emissions with emerging regulations and policies by the Indian government to achieve its NDCs. Anticipating future requirements, we have started to internally price our carbon emissions at the rate of USD20 per tonne of CO2e of all the Scope 1 &amp; 2 CO2 emissions from our operations. We assumed a 25% higher price than the carbon price averages (that is, USD10-15 per tons of CO2e) in the voluntary carbon market in India.</li> <li>3. APSEZ will shift to remote management of automation and control of port operations, including operating equipment from and monitoring processes remotely to reduce exposure of ports’ staff to extreme weather events.</li> </ol>

			4. APSEZ is expected to have reduced demand for the transportation of oil tankers and coal carriers and a greater requirement for transporting hydrogen, ammonia, and alternative low-carbon emitting fuels in the medium-term time horizon.
Physical climate scenarios RCP 4.5	Company-wide		<p>Climate related physical risk assessment was revised during FY 2022-23 by updating the analysis with the latest climate model outputs and scenario to identify climate-related risks due to physical hazards (acute and chronic). It was conducted using SSP2-RCP4.5 for two-time frames (2021-2050 &amp; 2041-2070). The changes in acute physical hazards (in terms of severity and frequency) and long-term changes in chronic hazards are quantified with respect to the baseline period to identify the impacts of changes in the likelihood of identified risks on APSEZ's direct operations.</p> <p>Parameters:</p> <ol style="list-style-type: none"> <li>1. Frequency of heatwaves, floods (inland and flash), cyclones, annual mean temperature and annual precipitation, and sea level rise in projected time periods with reference to the baseline period</li> <li>2. Changes in severity or intensity or magnitude in projected time periods with reference to the baseline period</li> </ol> <p>Assumptions:</p> <ol style="list-style-type: none"> <li>1. Assumptions for physical climate risks to materialize into financial impacts with substantial or strategic impact on APSEZ:             <ol style="list-style-type: none"> <li>a. Change of <math>\pm 1\%</math> to the EBITDA in the reporting year,</li> <li>b. <math>&gt;1\%</math> change in our annual cargo facilities</li> <li>c. Three days of complete shutdown of any one of our operations due to cyclone or natural disaster in a year</li> <li>d. <math>&gt;0</math> Occurrence of fatality within our operations</li> <li>e. Any significant breaches and financial penalties <math>&gt; \text{INR } 10,00,000</math></li> </ol> </li> <li>2. Average no. of days of business disruption due to:             <ol style="list-style-type: none"> <li>a. Cyclones and floods= 14 days</li> </ol> </li> <li>3. Low-pressure systems or cyclonic disturbances are projected based on the trends in the number of such systems developed in the last 40 years duration (1981-2020)</li> </ol>

			4. Multi-model ensemble of 35 models addressed the inter-model uncertainty of climate models
Physical climate scenarios RCP 2.6	Company-wide		<p>Climate related physical risk assessment was revised during FY 2022-23 by updating the analysis with the latest climate model outputs and scenario to identify climate-related risks due to physical hazards (acute and chronic). It was conducted using less than 2°C warming scenario (SSP1-RCP2.6) for two-time frames (2021-2050 &amp; 2041-2070). The changes in acute physical hazards (in terms of severity and frequency) and long-term changes in chronic hazards are quantified with respect to the baseline period to identify the impacts of changes in the likelihood of identified risks on APSEZ's direct operations.</p> <p>Parameters:</p> <ol style="list-style-type: none"> <li>1. Frequency of heatwaves, floods (inland and flash), cyclones, annual mean temperature and annual precipitation, and sea level rise in projected time periods with reference to the baseline period</li> <li>2. Changes in severity or intensity or magnitude in projected time periods with reference to the baseline period</li> </ol> <p>Assumptions:</p> <ol style="list-style-type: none"> <li>1. Assumptions for physical climate risks to materialize into financial impacts with substantial or strategic impact on APSEZ:             <ol style="list-style-type: none"> <li>a. Change of ±1% to the EBITDA in the reporting year,</li> <li>b. &gt;1 % change in our annual cargo facilities</li> <li>c. Three days of complete shutdown of any one of our operations due to cyclone or natural disaster in a year</li> <li>d. &gt;0 Occurrence of fatality within our operations</li> <li>e. Any significant breaches and financial penalties &gt; INR 10,00,000</li> </ol> </li> <li>2. Average no. of days of business disruption due to:             <ol style="list-style-type: none"> <li>a. Cyclones and floods= 14 days</li> </ol> </li> <li>3. Low-pressure systems or cyclonic disturbances are projected based on the trends in the number of such systems developed in the last 40 years duration (1981-2020)</li> </ol>

			4. Multi-model ensemble of 35 models addressed the inter-model uncertainty of climate models
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## C3.2b

**(C3.2b) Provide details of the focal questions your organization seeks to address by using climate-related scenario analysis, and summarize the results with respect to these questions.**

### Row 1

#### Focal questions

- a. Which ports will be highly likely to get impacted due to climate-related extreme weather events?
- b. How physical hazards are impacting APSEZ's business and operations?

#### Results of the climate-related scenario analysis with respect to the focal questions

- a. Ports highly likely to get impacted due to climate-related extreme weather events

The physical climate risk assessment study was conducted for two climate change scenarios (SSP1-RCP2.6 and SSP2-RCP4.5) for two-time frames (2021-2050 and 2041-2070). The outcomes of the study assess relative climatic risks to chronic and acute hazards and the changes in frequency and severity with respect to the baseline period.

For acute climatic hazards,

- It is observed that Dhamra, Murmogao, Dahej, Dighi, and Tuna are the five most exposed ports during the baseline period to multiple acute hazards based on the derived multi-hazard index with Dhamra having very high susceptibility to cyclones and heatwaves.
- Dhamra remains to be highly susceptible to multiple acute hazards under both the scenarios and time frames; however, the high likelihood of floods and cyclones drives the overall impacts due to climate change.
- A drier and warmer climate is observed under both the scenarios and time frames with significant decrease in precipitation in all ports except under SSP2-RCP4.5 in period 2041-2070.
- All the ports experience increases in number of extreme heat days, with Hazira, Krishnapatnam, Kattupalli, and Ennore experiencing an average increase of over 100 days under SSP1-RCP2.6 for both the time frames which worsens to over 130 days under SSP2-RCP4.5.



- The warming increase becomes more devastating with all ports experiencing a rise ranging between 1.4-2.3 degC during the period 2041-2070 under SSP2-RCP4.5 scenario.

b. Physical hazards are impacting APSEZ's business and operations:

- The ports of Colombo, Vizhinjam, Marmogao, Ennore and Kattupali are expected to have devastating impacts due to average sea level rise of 113 mm and 206 mm under medium- to long-term, respectively under SSP1-RCP2.6 scenario which increases to an average rise of 122 mm in medium-term under SSP2-RCP4.5 scenario.
- The likelihood for submergence of ports is very high for majority of the ports due to an average rise of over 215 mm in SSP2-RCP4.5 for long-term period with respect to the baseline period

This sea level rise would lead to sedimentation in the port basins and navigation channels. This requires significant dredging efforts to maintain appropriate water depth per vessels.

### C3.3

**(C3.3) Describe where and how climate-related risks and opportunities have influenced your strategy.**

	Have climate-related risks and opportunities influenced your strategy in this area?	Description of influence
Products and services	Yes	<p>We have made a firm commitment to achieve carbon neutrality by 2025 and have taken concrete steps to align our strategy with the growing demand for climate-resilient and low-carbon services. In line with this, we have signed up for the science-based targets commitment and the Task Force on Climate-related Financial Disclosures (TCFD).</p> <p>To ensure that our business activities do not hinder our goal of becoming a carbon-neutral integrated logistics company, we have divested our investments in Bowen Rail Company, demonstrating our dedication to reducing our carbon footprint.</p> <p>In addition, we are investing in and diversifying our transportation modes to promote a modal shift that contributes to the overall reduction of emissions. We are actively participating in the Government of India's inland waterway project and inter-port connectivity project, which will help us achieve a lower</p>

		<p>carbon footprint in our services.</p> <p>For example, the transportation of cargo through railways plays a crucial role in our operations. Our logistics arm operates 60 Rakes, and we have successfully converted several routes from road to rail, such as Mundra to Morbi Through this rail route, we have handled more than 18,000 TEUs, resulting in the avoidance of 4300tCO<sub>2</sub>e at the customer's end in FY 2022-23.</p> <p>These strategic initiatives not only support our commitment to carbon neutrality but also meet the growing demand for climate-resilient and low-carbon services from our customers and investors. We are dedicated to driving positive change and making sustainable choices that benefit both our business and the environment</p>
<p>Supply chain and/or value chain</p>	<p>Yes</p>	<p>APSEZ places great emphasis on supplier management and works closely with suppliers to improve their sustainability performance. The company aims to drive positive change across the value chain through training programs and joint projects. The company manages all its suppliers through an online portal (contractor safety management &amp; SAP Ariba) and seek the mandatory information on the labor laws, Environmental management systems, quality controls, safety performance, Governance structure, business relevance, social elements, employee &amp; company revenue details to assess and check the level of suppliers to be aligned with our supplier code of conduct driven by sustainable procurement policy. Assessment of the all the suppliers who seek to provide the services, products &amp; management service done against the set parameters on the scale of 0 to 2. Each supplier is graded based upon their revenue details.</p> <p>In FY 2022-23, we assessed our suppliers on pre-defined impact evaluation criteria, and it was observed that one of our suppliers failed to meet the requirements. As a testament to the effectiveness of our supplier engagement efforts and compliance requirements, we have blocklisted the vendor to eliminate any supplier related risks from the ecosystem. To deepen supplier engagement further, the company is in the process of setting up new systems. We reinforce engagement with specific vendors through various platforms, such as annual vendor meets and supplier vendor audits, to ensure business continuity. At APSEZ, we value our partnerships with suppliers and partners and believe that collaboration can enhance efficiency and deliver the best value to our customers.</p> <p>We conduct regular supplier audits to ensure that our supply chain operates ethically and complies with</p>

		<p>our Supplier Code of Conduct. This approach minimizes risk for APSEZ, our suppliers, and customers, which ultimately contributes to our competitive edge. In addition to conducting audits, we have also established a framework for strategic supplier relationships. This framework helps us safeguard our supply chain and identify opportunities for collaborative value creation. We understand that our vision of becoming the world's largest port utility by 2030 hinges on the strength of our partnerships, and we remain committed to nurturing and developing these relationships for our mutual benefit.</p>
<p>Investment in R&amp;D</p>	<p>Yes</p>	<p>APSEZ is the front-runners amongst port operators who are targeting carbon neutrality by 2025. To achieve its ambition, we are collaborating with various OEMs to provide them a launching pad to test and develop their products with months of pilot operations at some of our key ports. Besides, we are in discussion with some other solution providers to be first in the country to procure some of the newly launched low carbon solutions.</p> <p>Few examples with reference to the 2 cases include</p> <ol style="list-style-type: none"> <li>1)Piloting of Hydrogen Based Tugs at our port- in discussion with suppliers like KOWA (Japan) to procure their tugs which run on hydrogen</li> <li>2)Fuel catalyst for tugs- On pilot basis, we have deployed fuel optimizers (catalysts) on some of our tugs. These are estimated to have resulted in 5-10% reduction in diesel consumption on an average, implying potential fuel savings of at least 1 million liters of diesel, with a carbon savings of nearly 2,600 tons of CO2 for the period deployed</li> <li>3)Battery operated tugs- battery retrofitting options for a 70T BP &amp; 80T BP tugs are explored with Sterling PlanB (Canada) for another pilot</li> <li>4)Battery based locos (shunter)-in discussion with Wabtec &amp; Zephir for battery operated locos with 1 pilot at each of 2 ports.</li> <li>5)Battery operated reach stacker and ECH- pilot projects for battery operated reach stacker and Empty Container Handler (ECH) are being discussed with Kalmar (Finland) &amp; Sany (China). These 2 companies have recently launched their battery-operated reach stacker and ECH and APSEZ is looking to be the first company to pilot them at its sites</li> <li>6)Hybrid mix of renewable sources to target close to 100% electricity supply- developing renewable power supply solution with hybrid sources like solar, wind, biogas and making a provision for battery storage to ensure around 100% supply of renewable electricity.</li> </ol>



		<p>7)After 2 years of piloting we are going to get 500 ITVs by 2025</p> <p>We have formed an Innovation Counsel under which ideas on 6 key areas which include productivity/efficiency &amp; decarbonization can be proposed. These are evaluated and if suitable, funded by organization. For ex, in FY21 projects on efficiency / productivity in RTGs &amp; dredging function were chosen under innovation council. Additionally in last 2-3 years, areas with potential to save emissions by retrofitting and fuel shift were identified.</p>
Operations	Yes	<p>Our port operations span across several states, including Gujarat, Maharashtra, Goa, Kerala, Tamil Nadu, Andhra Pradesh, and Odisha. To assess the level of water stress experienced at our ports, we rely on internationally recognized publicly available sources that provide information on both current and future water stress scenarios. For our long-term water stress assessment, we consider future scenarios until 2030-2040.</p> <p>We have considered the anticipated positive impact of global climate action on greenhouse gas (GHG) emissions reduction. Therefore, we use an "optimistic" scenario that assumes stable worldwide economic development, a peak and decline in carbon emissions by 2040, with emissions constrained to stabilize at approximately 650 ppm CO<sub>2</sub>. This scenario aims to limit temperature increase to 1.1–2.6°C by 2100, which is deemed suitable for assessing future water stress.</p> <p>Based on this analysis, ports located in Gujarat, Maharashtra, Tamil Nadu, and Andhra Pradesh are identified as experiencing extremely high water stress in their catchment areas. According to The Aqueduct Water Tool predictions, water stress in regions such as Mundra, Tuna, Dahej, and Vizhinjam (under construction) is expected to increase by 1.4 times compared to the baseline year of FY 2016. Additionally, ports in Tamil Nadu and Krishnapatnam may see a rise in moderate seasonal variability. However, for the most part, the seasonal variability and water stress at other ports are projected to remain relatively unchanged.</p> <p>By considering these assessments and future scenarios, we have developed effective strategies and plans to manage water resources, mitigate the potential impacts of water stress, and ensure the sustainable operation of our ports.</p> <p>For example: APSEZ to provide the example</p>

### C3.4

**(C3.4) Describe where and how climate-related risks and opportunities have influenced your financial planning.**

	Financial planning elements that have been influenced	Description of influence
Row 1	Capital expenditures Capital allocation	<p>APSEZ has taken significant steps to incorporate climate risks as key factors in its Enterprise Risk Management (ERM), capital allocation, financial planning processes. To effectively tackle climate-related risks and opportunities, APSEZ has developed a separate budget allocation and enhanced financial cost estimates, receiving approval from the Board.</p> <p>As a result, APSEZ now has a clear roadmap for directing capital expenditures towards low-carbon solutions, renewable energy initiatives, and green ports. In line with its commitment to combat climate change APSEZ has dedicated XX in investments over the upcoming years to decarbonize operations and mitigate environmental risks.</p> <p>Moreover, APSEZ has also implemented a carbon pricing mechanism as an integral part of its capital allocation strategy for addressing climate-related challenges and opportunities. This mechanism involves assigning a monetary value to the carbon emissions associated with the company's operations, products, and supply chain. The calculated carbon costs are then factored into the decision-making processes regarding investments. By incorporating carbon pricing, APSEZ gains a better understanding of the financial implications of its climate-related investments and can prioritize low-carbon solutions and renewable energy projects with greater clarity and efficacy.</p>

### C3.5

**(C3.5) In your organization's financial accounting, do you identify spending/revenue that is aligned with your organization's climate transition?**

	Identification of spending/revenue that is aligned with your organization's climate transition
Row 1	Yes, we identify alignment with our climate transition plan

## **C3.5a**

**(C3.5a) Quantify the percentage share of your spending/revenue that is aligned with your organization's climate transition.**

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**Financial Metric**

CAPEX

**Type of alignment being reported for this financial metric**

Alignment with our climate transition plan

**Taxonomy under which information is being reported**

**Objective under which alignment is being reported**

**Amount of selected financial metric that is aligned in the reporting year (unit currency as selected in C0.4)**

**Percentage share of selected financial metric aligned in the reporting year (%)**

**Percentage share of selected financial metric planned to align in 2025 (%)**

**Percentage share of selected financial metric planned to align in 2030 (%)**

**Describe the methodology used to identify spending/revenue that is aligned**

## C4. Targets and performance

### C4.1

**(C4.1) Did you have an emissions target that was active in the reporting year?**

Absolute target

Intensity target

### C4.1a

**(C4.1a) Provide details of your absolute emissions target(s) and progress made against those targets.**

---

**Target reference number**

Abs 1

**Is this a science-based target?**

Yes, we consider this a science-based target, and we have committed to seek validation of this target by the Science Based Targets initiative in the next two years

**Target ambition**

1.5°C aligned

**Year target was set**

2023

**Target coverage**

Company-wide

**Scope(s)**

Scope 3

**Scope 2 accounting method**

**Scope 3 category(ies)**

- Category 1: Purchased goods and services
- Category 2: Capital goods
- Category 3: Fuel-and-energy-related activities (not included in Scopes 1 or 2)
- Category 4: Upstream transportation and distribution
- Category 5: Waste generated in operations
- Category 6: Business travel
- Category 7: Employee commuting
- Category 9: Downstream transportation and distribution
- Category 13: Downstream leased assets
- Category 15: Investments

**Base year**

2023

**Base year Scope 1 emissions covered by target (metric tons CO2e)**

**Base year Scope 2 emissions covered by target (metric tons CO2e)**

**Base year Scope 3, Category 1: Purchased goods and services emissions covered by target (metric tons CO2e)**

475,391

**Base year Scope 3, Category 2: Capital goods emissions covered by target (metric tons CO2e)**

848,219

**Base year Scope 3, Category 3: Fuel-and-energy-related activities (not included in Scopes 1 or 2) emissions covered by target (metric tons CO2e)**

132,022

**Base year Scope 3, Category 4: Upstream transportation and distribution emissions covered by target (metric tons CO2e)**

422,719

**Base year Scope 3, Category 5: Waste generated in operations emissions covered by target (metric tons CO2e)**

329

**Base year Scope 3, Category 6: Business travel emissions covered by target (metric tons CO2e)**

169

**Base year Scope 3, Category 7: Employee commuting emissions covered by target (metric tons CO2e)**

1,367

**Base year Scope 3, Category 8: Upstream leased assets emissions covered by target (metric tons CO2e)**

**Base year Scope 3, Category 9: Downstream transportation and distribution emissions covered by target (metric tons CO2e)**

97,653

**Base year Scope 3, Category 10: Processing of sold products emissions covered by target (metric tons CO2e)**

**Base year Scope 3, Category 11: Use of sold products emissions covered by target (metric tons CO2e)**

**Base year Scope 3, Category 12: End-of-life treatment of sold products emissions covered by target (metric tons CO2e)**

**Base year Scope 3, Category 13: Downstream leased assets emissions covered by target (metric tons CO2e)**

11,589

**Base year Scope 3, Category 14: Franchises emissions covered by target (metric tons CO2e)**

**Base year Scope 3, Category 15: Investments emissions covered by target (metric tons CO2e)**

33,614

**Base year Scope 3, Other (upstream) emissions covered by target (metric tons CO2e)**

**Base year Scope 3, Other (downstream) emissions covered by target (metric tons CO2e)**

**Base year total Scope 3 emissions covered by target (metric tons CO2e)**

2,023,072

**Total base year emissions covered by target in all selected Scopes (metric tons CO2e)**

2,023,072

**Base year Scope 1 emissions covered by target as % of total base year emissions in Scope 1**

**Base year Scope 2 emissions covered by target as % of total base year emissions in Scope 2**

**Base year Scope 3, Category 1: Purchased goods and services emissions covered by target as % of total base year emissions in Scope 3, Category 1: Purchased goods and services (metric tons CO2e)**

23

**Base year Scope 3, Category 2: Capital goods emissions covered by target as % of total base year emissions in Scope 3, Category 2: Capital goods (metric tons CO2e)**

42

**Base year Scope 3, Category 3: Fuel-and-energy-related activities (not included in Scopes 1 or 2) emissions covered by target as % of total base year emissions in Scope 3, Category 3: Fuel-and-energy-related activities (not included in Scopes 1 or 2) (metric tons CO2e)**

7

**Base year Scope 3, Category 4: Upstream transportation and distribution covered by target as % of total base year emissions in Scope 3, Category 4: Upstream transportation and distribution (metric tons CO2e)**

21

**Base year Scope 3, Category 5: Waste generated in operations emissions covered by target as % of total base year emissions in Scope 3, Category 5: Waste generated in operations (metric tons CO2e)**

0

**Base year Scope 3, Category 6: Business travel emissions covered by target as % of total base year emissions in Scope 3, Category 6: Business travel (metric tons CO2e)**

0

**Base year Scope 3, Category 7: Employee commuting covered by target as % of total base year emissions in Scope 3, Category 7: Employee commuting (metric tons CO2e)**

0

**Base year Scope 3, Category 8: Upstream leased assets emissions covered by target as % of total base year emissions in Scope 3, Category 8: Upstream leased assets (metric tons CO2e)**

**Base year Scope 3, Category 9: Downstream transportation and distribution emissions covered by target as % of total base year emissions in Scope 3, Category 9: Downstream transportation and distribution (metric tons CO2e)**

5

**Base year Scope 3, Category 10: Processing of sold products emissions covered by target as % of total base year emissions in Scope 3, Category 10: Processing of sold products (metric tons CO2e)**



**Base year Scope 3, Category 11: Use of sold products emissions covered by target as % of total base year emissions in Scope 3, Category 11: Use of sold products (metric tons CO2e)**

**Base year Scope 3, Category 12: End-of-life treatment of sold products emissions covered by target as % of total base year emissions in Scope 3, Category 12: End-of-life treatment of sold products (metric tons CO2e)**

**Base year Scope 3, Category 13: Downstream leased assets emissions covered by target as % of total base year emissions in Scope 3, Category 13: Downstream leased assets (metric tons CO2e)**

1

**Base year Scope 3, Category 14: Franchises emissions covered by target as % of total base year emissions in Scope 3, Category 14: Franchises (metric tons CO2e)**

**Base year Scope 3, Category 15: Investments emissions covered by target as % of total base year emissions in Scope 3, Category 15: Investments (metric tons CO2e)**

2

**Base year Scope 3, Other (upstream) emissions covered by target as % of total base year emissions in Scope 3, Other (upstream) (metric tons CO2e)**

**Base year Scope 3, Other (downstream) emissions covered by target as % of total base year emissions in Scope 3, Other (downstream) (metric tons CO2e)**

**Base year total Scope 3 emissions covered by target as % of total base year emissions in Scope 3 (in all Scope 3 categories)**

100

**Base year emissions covered by target in all selected Scopes as % of total base year emissions in all selected Scopes**

100

**Target year**

2033

**Targeted reduction from base year (%)**

50

**Total emissions in target year covered by target in all selected Scopes (metric tons CO<sub>2</sub>e) [auto-calculated]**

1,011,536

**Scope 1 emissions in reporting year covered by target (metric tons CO<sub>2</sub>e)**

**Scope 2 emissions in reporting year covered by target (metric tons CO<sub>2</sub>e)**

**Scope 3, Category 1: Purchased goods and services emissions in reporting year covered by target (metric tons CO<sub>2</sub>e)**

475,391

**Scope 3, Category 2: Capital goods emissions in reporting year covered by target (metric tons CO<sub>2</sub>e)**

848,219

**Scope 3, Category 3: Fuel-and-energy-related activities (not included in Scopes 1 or 2) emissions in reporting year covered by target (metric tons CO<sub>2</sub>e)**

132,022

**Scope 3, Category 4: Upstream transportation and distribution emissions in reporting year covered by target (metric tons CO<sub>2</sub>e)**

422,719

**Scope 3, Category 5: Waste generated in operations emissions in reporting year covered by target (metric tons CO<sub>2</sub>e)**

329

**Scope 3, Category 6: Business travel emissions in reporting year covered by target (metric tons CO2e)**

169

**Scope 3, Category 7: Employee commuting emissions in reporting year covered by target (metric tons CO2e)**

1,367

**Scope 3, Category 8: Upstream leased assets emissions in reporting year covered by target (metric tons CO2e)**

**Scope 3, Category 9: Downstream transportation and distribution emissions in reporting year covered by target (metric tons CO2e)**

97,653

**Scope 3, Category 10: Processing of sold products emissions in reporting year covered by target (metric tons CO2e)**

**Scope 3, Category 11: Use of sold products emissions in reporting year covered by target (metric tons CO2e)**

**Scope 3, Category 12: End-of-life treatment of sold products emissions in reporting year covered by target (metric tons CO2e)**

**Scope 3, Category 13: Downstream leased assets emissions in reporting year covered by target (metric tons CO2e)**

11,589

**Scope 3, Category 14: Franchises emissions in reporting year covered by target (metric tons CO2e)**

**Scope 3, Category 15: Investments emissions in reporting year covered by target (metric tons CO2e)**

33,614

**Scope 3, Other (upstream) emissions in reporting year covered by target (metric tons CO2e)**

**Scope 3, Other (downstream) emissions in reporting year covered by target (metric tons CO2e)**

**Total Scope 3 emissions in reporting year covered by target (metric tons CO2e)**

2,023,072

**Total emissions in reporting year covered by target in all selected scopes (metric tons CO2e)**

2,023,072

**Does this target cover any land-related emissions?**

No, it does not cover any land-related emissions (e.g. non-FLAG SBT)

**% of target achieved relative to base year [auto-calculated]**

0

**Target status in reporting year**

New

**Please explain target coverage and identify any exclusions**

The target covers all operations under the APSEZ. Current reported boundary of India operations with >95% revenue contribution. As the business expanded our coverage in terms of number of entities has also increased.

**Plan for achieving target, and progress made to the end of the reporting year**

Plan for achieving target for scope 3 emissions:

- a. Transportation: Road transportation is a significant contributor to scope 3 GHG emissions due to the burning of fossil fuels. Rail transportation, on the other hand, generally has a lower carbon footprint as it is more fuel-efficient and can carry larger volumes of goods per trip.
- b. Increased Efficiency and Consolidation: Rail transport allows for larger cargo volumes to be moved at once compared to individual truck shipments. By collaborating with customers and promoting rail transportation, APSEZ enabled double stacker container of goods into larger

loads, reducing the number of vehicles on the road. This consolidation leads to increased efficiency and lowers emissions per unit of transported goods.

c. We have initiated collecting of scope 3 emissions during onboarding of our suppliers. In the upcoming years, we would be helping our suppliers to reduce their scope 3 emissions.

d. Presently, our 6 sites are certified for 'Zero waste to landfill'. We target our 100% of our operating sites to be 'Zero waste to landfill' certified.

e. Encourage our employees to opt for greener commute options. Presently, APSEZ uses EV within its port premises for commute.

**List the emissions reduction initiatives which contributed most to achieving this target**

## C4.1b

**(C4.1b) Provide details of your emissions intensity target(s) and progress made against those target(s).**

---

**Target reference number**

Int 1

**Is this a science-based target?**

Yes, we consider this a science-based target, and we have committed to seek validation of this target by the Science Based Targets initiative in the next two years

**Target ambition**

1.5°C aligned

**Year target was set**

2020

**Target coverage**

Company-wide

**Scope(s)**

Scope 1

Scope 2

**Scope 2 accounting method**

Location-based

**Scope 3 category(ies)**

**Intensity metric**

Metric tons CO<sub>2</sub>e per unit revenue

**Base year**

2016

**Intensity figure in base year for Scope 1 (metric tons CO<sub>2</sub>e per unit of activity)**

12.22

**Intensity figure in base year for Scope 2 (metric tons CO<sub>2</sub>e per unit of activity)**

20.28

**Intensity figure in base year for Scope 3, Category 1: Purchased goods and services (metric tons CO<sub>2</sub>e per unit of activity)**

**Intensity figure in base year for Scope 3, Category 2: Capital goods (metric tons CO<sub>2</sub>e per unit of activity)**

**Intensity figure in base year for Scope 3, Category 3: Fuel-and-energy-related activities (not included in Scopes 1 or 2) (metric tons CO<sub>2</sub>e per unit of activity)**

**Intensity figure in base year for Scope 3, Category 4: Upstream transportation and distribution (metric tons CO2e per unit of activity)**

**Intensity figure in base year for Scope 3, Category 5: Waste generated in operations (metric tons CO2e per unit of activity)**

**Intensity figure in base year for Scope 3, Category 6: Business travel (metric tons CO2e per unit of activity)**

**Intensity figure in base year for Scope 3, Category 7: Employee commuting (metric tons CO2e per unit of activity)**

**Intensity figure in base year for Scope 3, Category 8: Upstream leased assets (metric tons CO2e per unit of activity)**

**Intensity figure in base year for Scope 3, Category 9: Downstream transportation and distribution (metric tons CO2e per unit of activity)**

**Intensity figure in base year for Scope 3, Category 10: Processing of sold products (metric tons CO2e per unit of activity)**

**Intensity figure in base year for Scope 3, Category 11: Use of sold products (metric tons CO2e per unit of activity)**

**Intensity figure in base year for Scope 3, Category 12: End-of-life treatment of sold products (metric tons CO2e per unit of activity)**

**Intensity figure in base year for Scope 3, Category 13: Downstream leased assets (metric tons CO2e per unit of activity)**

**Intensity figure in base year for Scope 3, Category 14: Franchises (metric tons CO2e per unit of activity)**

**Intensity figure in base year for Scope 3, Category 15: Investments (metric tons CO2e per unit of activity)**

**Intensity figure in base year for Scope 3, Other (upstream) (metric tons CO2e per unit of activity)**

**Intensity figure in base year for Scope 3, Other (downstream) (metric tons CO2e per unit of activity)**

**Intensity figure in base year for total Scope 3 (metric tons CO2e per unit of activity)**

**Intensity figure in base year for all selected Scopes (metric tons CO2e per unit of activity)**

32.5

**% of total base year emissions in Scope 1 covered by this Scope 1 intensity figure**

37.6

**% of total base year emissions in Scope 2 covered by this Scope 2 intensity figure**

62.4

**% of total base year emissions in Scope 3, Category 1: Purchased goods and services covered by this Scope 3, Category 1: Purchased goods and services intensity figure**

**% of total base year emissions in Scope 3, Category 2: Capital goods covered by this Scope 3, Category 2: Capital goods intensity figure**



**% of total base year emissions in Scope 3, Category 3: Fuel-and-energy-related activities (not included in Scopes 1 or 2) covered by this Scope 3, Category 3: Fuel-and-energy-related activities (not included in Scopes 1 or 2) intensity figure**

**% of total base year emissions in Scope 3, Category 4: Upstream transportation and distribution covered by this Scope 3, Category 4: Upstream transportation and distribution intensity figure**

**% of total base year emissions in Scope 3, Category 5: Waste generated in operations covered by this Scope 3, Category 5: Waste generated in operations intensity figure**

**% of total base year emissions in Scope 3, Category 6: Business travel covered by this Scope 3, Category 6: Business travel intensity figure**

**% of total base year emissions in Scope 3, Category 7: Employee commuting covered by this Scope 3, Category 7: Employee commuting intensity figure**

**% of total base year emissions in Scope 3, Category 8: Upstream leased assets covered by this Scope 3, Category 8: Upstream leased assets intensity figure**

**% of total base year emissions in Scope 3, Category 9: Downstream transportation and distribution covered by this Scope 3, Category 9: Downstream transportation and distribution intensity figure**

**% of total base year emissions in Scope 3, Category 10: Processing of sold products covered by this Scope 3, Category 10: Processing of sold products intensity figure**

**% of total base year emissions in Scope 3, Category 11: Use of sold products covered by this Scope 3, Category 11: Use of sold products intensity figure**

**% of total base year emissions in Scope 3, Category 12: End-of-life treatment of sold products covered by this Scope 3, Category 12: End-of-life treatment of sold products intensity figure**

**% of total base year emissions in Scope 3, Category 13: Downstream leased assets covered by this Scope 3, Category 13: Downstream leased assets intensity figure**

**% of total base year emissions in Scope 3, Category 14: Franchises covered by this Scope 3, Category 14: Franchises intensity figure**

**% of total base year emissions in Scope 3, Category 15: Investments covered by this Scope 3, Category 15: Investments intensity figure**

**% of total base year emissions in Scope 3, Other (upstream) covered by this Scope 3, Other (upstream) intensity figure**

**% of total base year emissions in Scope 3, Other (downstream) covered by this Scope 3, Other (downstream) intensity figure**

**% of total base year emissions in Scope 3 (in all Scope 3 categories) covered by this total Scope 3 intensity figure**

**% of total base year emissions in all selected Scopes covered by this intensity figure**

**Target year**

2025

**Targeted reduction from base year (%)**

60

**Intensity figure in target year for all selected Scopes (metric tons CO<sub>2</sub>e per unit of activity) [auto-calculated]**

13

**% change anticipated in absolute Scope 1+2 emissions**

-15

**% change anticipated in absolute Scope 3 emissions**

0

**Intensity figure in reporting year for Scope 1 (metric tons CO<sub>2</sub>e per unit of activity)**

5.32

**Intensity figure in reporting year for Scope 2 (metric tons CO<sub>2</sub>e per unit of activity)**

11.78

**Intensity figure in reporting year for Scope 3, Category 1: Purchased goods and services (metric tons CO<sub>2</sub>e per unit of activity)**

**Intensity figure in reporting year for Scope 3, Category 2: Capital goods (metric tons CO<sub>2</sub>e per unit of activity)**

**Intensity figure in reporting year for Scope 3, Category 3: Fuel-and-energy-related activities (not included in Scopes 1 or 2) (metric tons CO<sub>2</sub>e per unit of activity)**

**Intensity figure in reporting year for Scope 3, Category 4: Upstream transportation and distribution (metric tons CO2e per unit of activity)**

**Intensity figure in reporting year for Scope 3, Category 5: Waste generated in operations (metric tons CO2e per unit of activity)**

**Intensity figure in reporting year for Scope 3, Category 6: Business travel (metric tons CO2e per unit of activity)**

**Intensity figure in reporting year for Scope 3, Category 7: Employee commuting (metric tons CO2e per unit of activity)**

**Intensity figure in reporting year for Scope 3, Category 8: Upstream leased assets (metric tons CO2e per unit of activity)**

**Intensity figure in reporting year for Scope 3, Category 9: Downstream transportation and distribution (metric tons CO2e per unit of activity)**

**Intensity figure in reporting year for Scope 3, Category 10: Processing of sold products (metric tons CO2e per unit of activity)**

**Intensity figure in reporting year for Scope 3, Category 11: Use of sold products (metric tons CO2e per unit of activity)**

**Intensity figure in reporting year for Scope 3, Category 12: End-of-life treatment of sold products (metric tons CO2e per unit of activity)**

**Intensity figure in reporting year for Scope 3, Category 13: Downstream leased assets (metric tons CO2e per unit of activity)**

**Intensity figure in reporting year for Scope 3, Category 14: Franchises (metric tons CO2e per unit of activity)**

**Intensity figure in reporting year for Scope 3, Category 15: Investments (metric tons CO2e per unit of activity)**

**Intensity figure in reporting year for Scope 3, Other (upstream) (metric tons CO2e per unit of activity)**

**Intensity figure in reporting year for Scope 3, Other (downstream) (metric tons CO2e per unit of activity)**

**Intensity figure in reporting year for total Scope 3 (metric tons CO2e per unit of activity)**

**Intensity figure in reporting year for all selected Scopes (metric tons CO2e per unit of activity)**

17.1

**Does this target cover any land-related emissions?**

No, it does not cover any land-related emissions (e.g. non-FLAG SBT)

**% of target achieved relative to base year [auto-calculated]**

78.9743589744

**Target status in reporting year**

Underway

**Please explain target coverage and identify any exclusions**

The target covers all operations under the APSEZ. Current reported boundary of India operations with >95% revenue contribution. As the business expanded our coverage in terms of number of entities has also increased.

### **Plan for achieving target, and progress made to the end of the reporting year**

Emission mitigation plans achieve the targets are :

1. Achieve fuel-switch through.

Electrification of equipment such as RTGs, MHCs, Internal cargo transfer vehicles, and locomotives which are operating on fossil fuels and source the electricity from the renewable sources.

2. Source entire electricity from renewable sources.

3. Inhouse renewable solar or wind power plant for renewable electricity.

4. Set up of 250 MW renewable energy plant.

Progress made to the end of the reporting year:

79% of target achieved to the end of the reporting year by implementing.

1. Removal of almost all the fossil fuel based internal cargo transfer vehicles (338) with electric vehicles. out of 338 vehicles ~ 20% vehicles electricity sources through the renewable energy.

2. Installation of solar power plants of 900KWh in one of our ports.

3. Mechanisation of the berths in Krishnapatanm port.

### **List the emissions reduction initiatives which contributed most to achieving this target**

## **C4.2**

### **(C4.2) Did you have any other climate-related targets that were active in the reporting year?**

Target(s) to increase low-carbon energy consumption or production

Net-zero target(s)

Other climate-related target(s)

## **C4.2a**

### **(C4.2a) Provide details of your target(s) to increase low-carbon energy consumption or production.**

**Target reference number**

Low 1

**Year target was set**

2020

**Target coverage**

Company-wide

**Target type: energy carrier**

Electricity

**Target type: activity**

Consumption

**Target type: energy source**

Renewable energy source(s) only

**Base year**

2016

**Consumption or production of selected energy carrier in base year (MWh)**

193,935.93

**% share of low-carbon or renewable energy in base year**

0

**Target year**

2025

**% share of low-carbon or renewable energy in target year**

100

**% share of low-carbon or renewable energy in reporting year**

13.98

**% of target achieved relative to base year [auto-calculated]**

13.98

**Target status in reporting year**

Underway

**Is this target part of an emissions target?**

Yes, to achieve carbon neutral emissions target by FY25, we adopted four pillar strategy(energy efficiency, fuel switch [fossil fuel to greener fuel], around 100% electricity from the renewable sources). Accordingly, we are aligning the all our individual divisional level and business level targets with our carbon neutral commitment.

**Is this target part of an overarching initiative?**

Other, please specify

Yes. To achieve carbon neutral target by FY25, 4 pillar strategy i.e. Energy efficiency, Fuel switch, Renewable energy and Offsets)

**Please explain target coverage and identify any exclusions**

The target covers all operations under the APSEZ. Current reported boundary of India operations with >95% revenue contribution. As the business expanded our coverage in terms of number of entities has also increased.

**Plan for achieving target, and progress made to the end of the reporting year**

Renewable energy sourcing plans to achieve the targets are

1. Set up captive renewable solar plants for renewable energy sourcing.
2. Set up 250 MW renewable plant to cater the sites with renewable electricity.
3. Source the Renewable electricity with Power Purchase agreements with the national or regional electricity authorities.

Progress Made to the end of the reporting year:

14% of the renewable electricity in the total electricity through

1. Renewable solar plants at the Mundra, kattipalli, ennore ports and patli logistic site.
2. Sourcing renewable electricity through power purchase agreements at the Hazira, dahej, tuna ports and our supporting services.



**List the actions which contributed most to achieving this target**

## C4.2b

**(C4.2b) Provide details of any other climate-related targets, including methane reduction targets.**

---

**Target reference number**

Oth 1

**Year target was set**

2020

**Target coverage**

Company-wide

**Target type: absolute or intensity**

Intensity

**Target type: category & Metric (target numerator if reporting an intensity target)**

Energy consumption or efficiency

GJ

**Target denominator (intensity targets only)**

unit revenue

**Base year**

2016

**Figure or percentage in base year**

250

**Target year**

2025

**Figure or percentage in target year**

125

**Figure or percentage in reporting year**

134.49

**% of target achieved relative to base year [auto-calculated]**

92.408

**Target status in reporting year**

Underway

**Is this target part of an emissions target?**

Yes, to achieve carbon neutral target by FY25 we adopted four pillar strategy i.e. Energy efficiency, Fuel switch, Renewable energy and Offsets.) Accordingly we are aligning all our individual targets with our carbon neutral commitment and are in the process of developing the strategy to achieve the commitment.

**Is this target part of an overarching initiative?**

Other, please specify

Yes. To achieve carbon neutral target by FY25, 4 pillar strategy i.e. Energy efficiency, Fuel switch, Renewable energy and Offsets))

**Please explain target coverage and identify any exclusions**

The target covers all operations under the APSEZ. Current reported boundary of India operations with >95% revenue contribution. As the business expanded our coverage in terms of number of entities has also increased.

**Plan for achieving target, and progress made to the end of the reporting year**

Energy efficiency plans to achieve the targets are:

1. Electrification of fossil fuel-based equipment (for better performance and energy optimalization.)
2. Automation of the equipment for removal of the energy losses and real time tracking of energy consumption for quick decision making.

3. Adoption and implementation of the best available technologies.

Progress made the the end of FY23.

4. Mechanisation of the berths for optimal performance w.r.t energy.

1. Electricification of almost all the Rubber granty crane and Liebherr cranes across the location.

2. Removal of almost all the fossil fuel based internal cargo transfer vehicles(338) with electric vehilcles.

3. Mechanisation of theberths completed at krishnapatnam, mundra, Hazira and dhamra sites completed.

**List the actions which contributed most to achieving this target**

## C4.2c

**(C4.2c) Provide details of your net-zero target(s).**

---

**Target reference number**

NZ1

**Target coverage**

Company-wide

**Absolute/intensity emission target(s) linked to this net-zero target**

Int1

**Target year for achieving net zero**

2040

**Is this a science-based target?**

Yes, we consider this a science-based target, and we have committed to seek validation of this target by the Science Based Targets initiative in the next two years

**Please explain target coverage and identify any exclusions**

The target covers all operations under the APSEZ. Current reported boundary of India operations with >95% revenue contribution. As the business expanded our coverage in terms of number of entities has also increased.

**Do you intend to neutralize any unabated emissions with permanent carbon removals at the target year?**

Yes

**Planned milestones and/or near-term investments for neutralization at target year**

APSEZ has set in its journey towards a sustainable future and achieving emission reduction targets. We are committed to making significant progress in decarbonization and embracing renewable energy sources. Here are the key milestones:

- Gradual Switch to Electricity or Green Hydrogen: APSEZ has outlined a comprehensive plan to gradually transition diesel-powered equipment to cleaner alternatives, such as electricity or green hydrogen. This shift will significantly reduce carbon emissions and promote sustainable operations across our facilities.

- Deployment of 338 Electric Internal Cargo Transfer Vehicles: As part of our efforts to reduce emissions in our logistics operations, APSEZ plans to deploy 500 electric internal cargo transfer vehicles. These vehicles will help minimize air pollution and noise levels while ensuring efficient and environmentally friendly cargo handling within our ports.

- Addressing the Challenge of Decarbonizing Heavy Equipment: We acknowledge the challenge of decarbonizing heavy equipment, particularly in sectors like dredging. While viable technologies for complete decarbonization may be limited at present, we are actively exploring future advancements and innovative solutions that will enable us to reduce emissions from these critical operations.

Installation of 250 MW Renewable Capacity: APSEZ is committed to scaling up its renewable energy capacity by installing 250 MW of renewable energy sources. This investment in renewable infrastructure will allow us to reduce our reliance on fossil fuels, lower greenhouse gas emissions, and contribute to India's clean energy transition.

- Additional Investment in Battery Storage: Recognizing the importance of energy storage to facilitate renewable energy integration, APSEZ plans to make additional investments in battery storage technology. This will enhance grid stability, support intermittent renewable energy generation, and optimize energy usage across our facilities.

- As part of our emission reduction strategy, we aim to abate 3% of emissions through electrification. Additionally, 68% of emissions mitigation will be achieved through the utilization of renewable electricity, demonstrating our commitment to sustainable energy sources. To offset the remaining emissions, APSEZ is actively engaged in mangrove restoration and terrestrial plantation initiatives, contributing to nature-based solutions for carbon sequestration and biodiversity conservation.

**Planned actions to mitigate emissions beyond your value chain (optional)**

**C4.3**

**(C4.3) Did you have emissions reduction initiatives that were active within the reporting year? Note that this can include those in the planning and/or implementation phases.**

Yes

**C4.3a**

**(C4.3a) Identify the total number of initiatives at each stage of development, and for those in the implementation stages, the estimated CO2e savings.**

	Number of initiatives	Total estimated annual CO2e savings in metric tonnes CO2e (only for rows marked *)
Under investigation	4	60,551
To be implemented*	4	346,020
Implementation commenced*	3	12,155
Implemented*	5	17,563
Not to be implemented	0	0

**C4.3b**

**(C4.3b) Provide details on the initiatives implemented in the reporting year in the table below.**

**Initiative category & Initiative type**

Transportation

Company fleet vehicle replacement

**Estimated annual CO2e savings (metric tonnes CO2e)**

124.33

**Scope(s) or Scope 3 category(ies) where emissions savings occur**

Scope 1

**Voluntary/Mandatory**

Voluntary

**Annual monetary savings (unit currency – as specified in C0.4)**

5,850,000

**Investment required (unit currency – as specified in C0.4)**

11,250,000

**Payback period**

1-3 years

**Estimated lifetime of the initiative**

6-10 years

**Comment**

9 Electric cars are procured for commuting of the employees inside and outside the company premises which are recharged through the renewable electricity.

---

**Initiative category & Initiative type**

Transportation

Company fleet vehicle replacement

**Estimated annual CO2e savings (metric tonnes CO2e)**

1,524

**Scope(s) or Scope 3 category(ies) where emissions savings occur**

Scope 1

**Voluntary/Mandatory**

Voluntary

**Annual monetary savings (unit currency – as specified in C0.4)**

51,600,000

**Investment required (unit currency – as specified in C0.4)**

600,000,000

**Payback period**

11-15 years

**Estimated lifetime of the initiative**

16-20 years

**Comment**

51 No of electric internal transfer vehicles are put into operation to reduce the ghg emissions which replaces the conventional fossil fuel operated vehicles with electricity which is sourced from renewable.

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**Initiative category & Initiative type**

Energy efficiency in production processes

Machine/equipment replacement

**Estimated annual CO2e savings (metric tonnes CO2e)**

14,930.38

**Scope(s) or Scope 3 category(ies) where emissions savings occur**

Scope 1  
Scope 2 (location-based)

**Voluntary/Mandatory**

Voluntary

**Annual monetary savings (unit currency – as specified in C0.4)**

292,735,885

**Investment required (unit currency – as specified in C0.4)**

1,455,119,895

**Payback period**

4-10 years

**Estimated lifetime of the initiative**

16-20 years

**Comment**

Diesel vehicle to Electric Conveyor belt conversion, compressor air-line tapping, DMC Tractor fuel efficiency measures and TLS Chute modification to optimise the process and enhance the throughput hence reducing the overall GHG emissions.

---

**Initiative category & Initiative type**

Low-carbon energy consumption  
Solar PV

**Estimated annual CO2e savings (metric tonnes CO2e)**

984

**Scope(s) or Scope 3 category(ies) where emissions savings occur**



Scope 2 (location-based)

**Voluntary/Mandatory**

Voluntary

**Annual monetary savings (unit currency – as specified in C0.4)**

10,200,000

**Investment required (unit currency – as specified in C0.4)**

43,900,000

**Payback period**

4-10 years

**Estimated lifetime of the initiative**

16-20 years

**Comment**

Installation of 1MWh capacity solar power plant to cater the requirement of the operations at Kattupalli port.

**C4.3c**

**(C4.3c) What methods do you use to drive investment in emissions reduction activities?**

Method	Comment
Dedicated budget for energy efficiency	APSEZ has been accompanied by installation of the state-of-the-art Service techniques along with matching emphasis on advanced pollution control systems. The key intent is to benchmark and align with Global Best Available Techniques (BATs) for energy efficiency. Energy Efficiency is one of the pillars in our Pathway to achieve Carbon neutrality target by FY25. At site energy efficiency measures are identified, budget for the projects is prepared, reviewed by the site heads. These projects are then presented to the board for budget allocation before the start of new financial year. Apart from this there is provision to get budget for additional initiatives identified during the year for technological retrofit and replacement projects which lead to the significant energy reduction are also added to the project.

<p>Dedicated budget for other emissions reduction activities</p>	<p>Energy efficiency measures can have indirect emission reduction effects beyond immediate energy savings. APSEZ invests from its dedicated budget for emission reduction activities in renewable energy projects, such as solar and wind power installations, conversion of equipment to electric from fossil fuel, and procuring of renewable electricity from external sources to reduce emissions.</p> <p>The following are some of the initiatives wherein we have utilized this budget:</p> <ul style="list-style-type: none"> <li>- A total of 338 electric E ITVs have been deployed across various locations during the fiscal year 2023.</li> <li>- Fleet of nine Tata Nexon EVs has been introduced at various sites to facilitate employee travel.</li> <li>- Formalization of sourcing 250MW of renewable electricity has been completed.</li> <li>- The electrification process for nine diesel cranes has been successfully completed.</li> </ul>
<p>Internal price on carbon</p>	<p>Internal carbon pricing has been embedded in mainstream capital project evaluation. We have adopted an internal fee of USD 20/tCO<sub>2</sub>e= INR 1,642.4/tCO<sub>2</sub>e</p>
<p>Compliance with regulatory requirements/standards</p>	<p>In view of promoting sustainable development, the Government of India has come up with several acts, rules, and notifications. APSEZ has always given the highest priority to compliance with the statutory/ mandatory/ legal requirements.</p>
<p>Internal incentives/recognition programs</p>	<p>MADHYAM is an on-line reward scheme introduced at Group level in the year 2016. The objective of Madhyam is to provide employees with a channel to share their ideas, suggestions, and insights to the Chairman, on strategy, operations, organization, CSR, financial and technology. Based on the value addition or impact of the idea, it passes through various levels of assessments. Ideas are further categorized into three categories based on the level of impact, financial impact and the impact sphere i.e., group, business, or department level impact. The financial incentive for the idea ranges from INR 5000 to INR 50000. Chairman awards the employee if the idea is implements on ground.</p> <p>Activities incentivized: Emissions reduction project, Emission reduction strategy, Emissions reduction target, Energy reduction project, Energy reduction target, Efficiency project Company performance against a climate-related sustainability index.</p>

## C4.5

**(C4.5) Do you classify any of your existing goods and/or services as low-carbon products?**

Yes

### C4.5a

**(C4.5a) Provide details of your products and/or services that you classify as low-carbon products.**

---

**Level of aggregation**

Group of products or services

**Taxonomy used to classify product(s) or service(s) as low-carbon**

No taxonomy used to classify product(s) or service(s) as low carbon

**Type of product(s) or service(s)**

Other

Other, please specify

Transportation support services: green port services, electrification of railways and shifting of customer cargo from road transportation (diesel-based trucks) to Rail.

**Description of product(s) or service(s)**

Our services encompass cargo handling, including bulk, breakbulk, containerized, and liquid cargo, facilitated by modern equipment. All these equipment consumes high amount of energy to transfer the cargo from one location to another location. Almost all of the equipment is converted to electric based from the fossil fuel operated. the services provided at Kattupalli port uses the renewable electricity generated at the site itself.

Note: APSEZ is not legally required to align its services to any sustainability taxonomy because India neither mandates nor has any sustaianability taxonomy framework.

**Have you estimated the avoided emissions of this low-carbon product(s) or service(s)**

Yes

**Methodology used to calculate avoided emissions**

Estimating and Reporting the Comparative Emissions Impacts of Products (WRI)

**Life cycle stage(s) covered for the low-carbon product(s) or services(s)**

Use stage

**Functional unit used**

MT

**Reference product/service or baseline scenario used**

Services provided with the same equipment with the usage of grid electricity and diesel.

**Life cycle stage(s) covered for the reference product/service or baseline scenario**

Use stage

**Estimated avoided emissions (metric tons CO<sub>2</sub>e per functional unit) compared to reference product/service or baseline scenario**

46,582.79

**Explain your calculation of avoided emissions, including any assumptions**

Amount of energy(MWh) replaced with the renewable energy = 53,523 MWh

Grid Electricity emission factor = 0.79tCO<sub>2</sub>e/MWh

Avoided emissions = Grid electricity consumption (MWh)\*Emission factor(tCO<sub>2</sub>e/MWh)

Avoided emissions = 53,523 \* 0.79 = 42,283.17 tco<sub>2</sub>e

Introducing rail transportation 4299.62tCO<sub>2</sub>e emissions were avoided.

**Revenue generated from low-carbon product(s) or service(s) as % of total revenue in the reporting year**

6.44

## C5. Emissions methodology

### C5.1

**(C5.1) Is this your first year of reporting emissions data to CDP?**

No

### C5.1a

**(C5.1a) Has your organization undergone any structural changes in the reporting year, or are any previous structural changes being accounted for in this disclosure of emissions data?**

Row 1

---

**Has there been a structural change?**

Yes, an acquisition

**Name of organization(s) acquired, divested from, or merged with**

Gangavaram port limited

**Details of structural change(s), including completion dates**

APSEZ, a leading ports and logistics company, completed the acquisition of Gangavaram Port Private Limited on 10th October 2022.

Gangavaram Port is a major port located in northern part of Andhra Pradesh next to Vizag Port and handles a diverse mix of dry and bulk commodities including Coal, Iron Ore, Fertilizer, Limestone, Bauxite, Sugar, Alumina, and Steel.

The acquisition of Gangavaram Port aligns with APSEZ's strategic objectives to expand its port and logistics network and enhance its capabilities in handling diverse cargo types. This acquisition allows APSEZ to strengthen its presence in the southern region and further consolidate its position as a key player in the maritime industry.

## C5.1b

**(C5.1b) Has your emissions accounting methodology, boundary, and/or reporting year definition changed in the reporting year?**

	Change(s) in methodology, boundary, and/or reporting year definition?	Details of methodology, boundary, and/or reporting year definition change(s)
Row 1	Yes, a change in methodology Yes, a change in boundary	Assessment of Scope 3 categories enhanced: Fuel- and Energy-Related Activities Not Included in Scope 1 or Scope 2: Upstream emissions of purchased fuels and Upstream emissions of purchased electricity also considered in addition to the Transmission and distribution (T&D) losses.

## C5.1c

**(C5.1c) Have your organization's base year emissions and past years' emissions been recalculated as a result of any changes or errors reported in C5.1a and/or C5.1b?**

	Base year recalculation	Scope(s) recalculated	Base year emissions recalculation policy, including significance threshold	Past years' recalculation
Row 1	Yes	Scope 3	Base year emissions policy is not established. We have not been revising our baseline. Adani Gangavaram port limited existed in FY16 and operated as Gangavaram port limited. An effective response to significance threshold is not readily available. However, the subject seems important input in baseline calibration and necessary guidance or SOP may be introduced to address the subject, go-ing forward.	Yes

## C5.2

**(C5.2) Provide your base year and base year emissions.**

**Scope 1**

**Base year start**

April 1, 2015

**Base year end**

March 31, 2016

**Base year emissions (metric tons CO<sub>2</sub>e)**

95,760.94

**Comment**

2016 disclosure is considered for base year reporting as the reporting boundary was significantly extended to cover entire upstream and downstream operations of APSEZ.

**Scope 2 (location-based)**

---

**Base year start**

April 1, 2015

**Base year end**

March 31, 2016

**Base year emissions (metric tons CO<sub>2</sub>e)**

158,941.22

**Comment**

2016 disclosure is considered for base year reporting as the reporting boundary was significantly extended to cover entire upstream and downstream operations of APSEZ.

**Scope 2 (market-based)**

---

**Base year start**

April 1, 2015

**Base year end**

March 31, 2016

**Base year emissions (metric tons CO2e)**

158,941.22

**Comment**

No Power purchase agreement (PPA) with renewable energy in the base year of 2016.

Since 2016, our organization has made significant progress in advancing its sustainability commitments. We have actively sought out opportunities to transition to renewable energy sources, increase energy efficiency, and mitigate our environmental impact. We are pleased to report that in subsequent years, we have successfully entered into PPAs with renewable energy providers, significantly reducing our reliance on fossil fuel-based electricity.

**Scope 3 category 1: Purchased goods and services**

---

**Base year start**

April 1, 2022

**Base year end**

March 31, 2023

**Base year emissions (metric tons CO2e)**

475,391

**Comment**

Calculated using the GHG Protocol Quantis Scope 3 Evaluator tool. Calculations are based on APSEZ group level OPEX expenditure for the reporting year.

**Scope 3 category 2: Capital goods**

---

**Base year start**

April 1, 2022

**Base year end**



March 31, 2023

**Base year emissions (metric tons CO2e)**

848,219

**Comment**

Calculated using the GHG Protocol Quantis Scope 3 Evaluator tool. Calculations are based on APSEZ group level OPEX expenditure for the reporting year.

**Scope 3 category 3: Fuel-and-energy-related activities (not included in Scope 1 or 2)**

---

**Base year start**

April 1, 2022

**Base year end**

March 31, 2023

**Base year emissions (metric tons CO2e)**

132,022

**Comment**

APSEZ processes are mainly fueled by liquid fuels(Diesel, Petrol & Biodiesel), gaseous fuels (LPG, PNG & acetylene) and electricity. Calculations are based on well-to-tank factors provided by EPA and % of Transmission and distribution losses as per India's central bank.

**Scope 3 category 4: Upstream transportation and distribution**

---

**Base year start**

April 1, 2022

**Base year end**

March 31, 2023

**Base year emissions (metric tons CO2e)**

422,719

**Comment**

Calculated using the GHG Protocol Quantis Scope 3 Evaluator tool. Calculations are based on APSEZ group level OPEX expenditure for the reporting year.

**Scope 3 category 5: Waste generated in operations**

---

**Base year start**

April 1, 2022

**Base year end**

March 31, 2023

**Base year emissions (metric tons CO<sub>2</sub>e)**

329

**Comment**

Calculations are based on the total waste material disposed in the reporting year. Emissions from the 3rd party reuse/recycle and incineration have been calculated. Emission factors for different materials based on directed to disposal are sourced from WBCSD – WRI Based-: "The Greenhouse Gas Protocol: A Corporate Accounting and Reporting Standard (Revised Edition)". Emissions occur in the transportation of waste for treatment.

**Scope 3 category 6: Business travel**

---

**Base year start**

April 1, 2022

**Base year end**

March 31, 2023

**Base year emissions (metric tons CO<sub>2</sub>e)**

169

**Comment**

Based on in-house travel tracker with Travel Requisition system. Standard emission factors for road, rail and air travel are sourced from the Indian GHG program.

**Scope 3 category 7: Employee commuting**

---

**Base year start**

April 1, 2022

**Base year end**

March 31, 2023

**Base year emissions (metric tons CO2e)**

1,367

**Comment**

Employee travel to corporate office, ports and movement of other admin vehicles for internal movement of employees' results in GHG emissions have been taken into consideration, using the appropriate emission factors provided by the GHG protocol and India GHG program for road transportation. To determine the total fuel consumed by the bus, the distance travelled was multiplied by the average bus mileage. The emission factor for the bus fuel was sourced from the GHG protocol's cross-sector tool for transport fuel use, while the emission factor for the SUV fuel was obtained from the India GHG program for road transportation.

**Scope 3 category 8: Upstream leased assets**

---

**Base year start**

**Base year end**

**Base year emissions (metric tons CO2e)**

**Comment**

APSEZ does not have any Upstream leased assets in the base year boundary. Therefore, this category is not applicable to APSEZ's business.

**Scope 3 category 9: Downstream transportation and distribution**

---

**Base year start**

April 1, 2022

**Base year end**

March 31, 2023

**Base year emissions (metric tons CO<sub>2</sub>e)**

97,653

**Comment**

Included are outbound shipments done through our logistics chain. Transportation of cargo through railways is one of the important activities for APSEZ. As the locomotive is operated by Indian railways, it is considered as scope 3 emissions. Calculations are based on downstream transportation and distribution distances. The emissions are calculated based on emission factor library of Indian GHG Program and WBCSD – WRI Based-: "The Greenhouse Gas Protocol: A Corporate Accounting and Reporting Standard (Revised Edition)".

**Scope 3 category 10: Processing of sold products**

---

**Base year start**

**Base year end**

**Base year emissions (metric tons CO<sub>2</sub>e)**

**Comment**

This category is not applicable to APSEZ's business as we are in the business of port operations and logistics services and do not produce any product.

**Scope 3 category 11: Use of sold products**

---

**Base year start**

**Base year end**

**Base year emissions (metric tons CO<sub>2</sub>e)**

**Comment**

This category is not applicable to APSEZ's business as we are in the business of port operations and logistics services and do not produce any product.

**Scope 3 category 12: End of life treatment of sold products**

---

**Base year start**

**Base year end**

**Base year emissions (metric tons CO<sub>2</sub>e)**

**Comment**

This category is not applicable to APSEZ's business as we are in the business of port operations and logistics services and do not produce any product.

### **Scope 3 category 13: Downstream leased assets**

---

**Base year start**

April 1, 2022

**Base year end**

March 31, 2023

**Base year emissions (metric tons CO<sub>2</sub>e)**

11,589

**Comment**

These are the emissions accounted for the office buildings given on lease to others. The emission value has been calculated by adopting WBCSD – WRI Based-: "The Greenhouse Gas Protocol: A Corporate Accounting and Reporting Standard (Revised Edition)

### **Scope 3 category 14: Franchises**

---

**Base year start**

**Base year end**

**Base year emissions (metric tons CO<sub>2</sub>e)**

**Comment**

This category is not applicable to APSEZ's business as we are in the business of port operations and logistics services and do not produce any product.

### **Scope 3 category 15: Investments**

---

**Base year start**

April 1, 2022

**Base year end**

March 31, 2023

**Base year emissions (metric tons CO<sub>2</sub>e)**

33,614

**Comment**

This emission occurs in our joint ventures namely AICTPL and ACMTPL. The emission value has been calculated by adopting WBCSD – WRI Based-: "The Greenhouse Gas Protocol: A Corporate Accounting and Reporting Standard (Revised Edition)

**Scope 3: Other (upstream)**

---

**Base year start**

**Base year end**

**Base year emissions (metric tons CO<sub>2</sub>e)**

**Comment**

This category is not applicable to APSEZ's business as we are in the business of port operations and logistics services and do not produce any product.

**Scope 3: Other (downstream)**

---

**Base year start**

**Base year end**

### **Base year emissions (metric tons CO<sub>2</sub>e)**

#### **Comment**

This category is not applicable to APSEZ's business as we are in the business of port operations and logistics services and do not produce any product.

## **C5.3**

### **(C5.3) Select the name of the standard, protocol, or methodology you have used to collect activity data and calculate emissions.**

India GHG Inventory Programme

IPCC Guidelines for National Greenhouse Gas Inventories, 2006

ISO 14064-1

The Greenhouse Gas Protocol: A Corporate Accounting and Reporting Standard (Revised Edition)

The Greenhouse Gas Protocol: Scope 2 Guidance

The Greenhouse Gas Protocol: Corporate Value Chain (Scope 3) Standard

## **C6. Emissions data**

### **C6.1**

#### **(C6.1) What were your organization's gross global Scope 1 emissions in metric tons CO<sub>2</sub>e?**

##### **Reporting year**

---

##### **Gross global Scope 1 emissions (metric tons CO<sub>2</sub>e)**

121,102.16

##### **Start date**



April 1, 2022

**End date**

March 31, 2023

**Comment**

Control approach consolidated scope 1 emissions during FY23 at enterprise level (APSEZ, its key subsidiaries and Joint Ventures).

**Past year 1**

---

**Gross global Scope 1 emissions (metric tons CO2e)**

129,437.6

**Start date**

April 1, 2021

**End date**

March 31, 2022

**Comment**

Control approach consolidated scope 1 emissions during FY22 at enterprise level (APSEZ, its key subsidiaries and Joint Ventures).

**Past year 2**

---

**Gross global Scope 1 emissions (metric tons CO2e)**

110,393.5

**Start date**

April 1, 2020

**End date**

March 31, 2021

**Comment**

Control approach consolidated scope 1 emissions during FY21 at enterprise level (APSEZ, its key subsidiaries and Joint Ventures).

**Past year 3**

---

**Gross global Scope 1 emissions (metric tons CO<sub>2</sub>e)**

92,905.11

**Start date**

April 1, 2019

**End date**

March 31, 2020

**Comment**

Control approach consolidated scope 1 emissions during FY20 at enterprise level (APSEZ, its key subsidiaries and Joint Ventures).

**Past year 4**

---

**Gross global Scope 1 emissions (metric tons CO<sub>2</sub>e)**

104,171.8

**Start date**

April 1, 2018

**End date**

March 31, 2019

**Comment**

Control approach consolidated scope 1 emissions during FY19 at enterprise level (APSEZ, its key subsidiaries and Joint Ventures).

**Past year 5**

---



**Gross global Scope 1 emissions (metric tons CO2e)**

84,457.2

**Start date**

April 1, 2017

**End date**

March 31, 2018

**Comment**

Control approach consolidated scope 1 emissions during FY18 at enterprise level (APSEZ, its key subsidiaries and Joint Ventures).

## C6.2

**(C6.2) Describe your organization's approach to reporting Scope 2 emissions.**

**Row 1**

---

**Scope 2, location-based**

We are reporting a Scope 2, location-based figure

**Scope 2, market-based**

We have no operations where we are able to access electricity supplier emission factors or residual emissions factors and are unable to report a Scope 2, market-based figure

**Comment**

Control approach consolidated scope 2 emissions during FY23 at enterprise level (APSEZ, its key subsidiaries and Joint Ventures).

## C6.3

**(C6.3) What were your organization's gross global Scope 2 emissions in metric tons CO2e?**

### Reporting year

---

**Scope 2, location-based**

261,950.91

**Start date**

April 1, 2022

**End date**

March 31, 2023

**Comment**

Control approach consolidated scope 2 emissions during FY23 at enterprise level (APSEZ, its key subsidiaries and Joint Ventures)

### Past year 1

---

**Scope 2, location-based**

193,061.7

**Start date**

April 1, 2021

**End date**

March 31, 2022

**Comment**

Control approach consolidated scope 2 emissions during FY22 at enterprise level (APSEZ, its key subsidiaries and Joint Ventures)

### Past year 2

---

**Scope 2, location-based**

196,159.8

**Start date**

April 1, 2020

**End date**

March 31, 2021

**Comment**

Control approach consolidated scope 2 emissions during FY21 at enterprise level (APSEZ, its key subsidiaries and Joint Ventures)

**Past year 3**

---

**Scope 2, location-based**

189,555.16

**Start date**

April 1, 2019

**End date**

March 31, 2020

**Comment**

Control approach consolidated scope 2 emissions during FY20 at enterprise level (APSEZ, its key subsidiaries and Joint Ventures)

**Past year 4**

---

**Scope 2, location-based**

174,604.7

**Start date**

April 1, 2018

**End date**

March 31, 2019

**Comment**

Control approach consolidated scope 2 emissions during FY19 at enterprise level (APSEZ, its key subsidiaries and Joint Ventures)

**Past year 5**

---

**Scope 2, location-based**

161,540.6

**Start date**

April 1, 2017

**End date**

March 31, 2018

**Comment**

Control approach consolidated scope 2 emissions during FY18 at enterprise level (APSEZ, its key subsidiaries and Joint Ventures)

**C6.4**

**(C6.4) Are there any sources (e.g. facilities, specific GHGs, activities, geographies, etc.) of Scope 1, Scope 2 or Scope 3 emissions that are within your selected reporting boundary which are not included in your disclosure?**

No

**C6.5**

**(C6.5) Account for your organization's gross global Scope 3 emissions, disclosing and explaining any exclusions.**

**Purchased goods and services**

---

**Evaluation status**

Relevant, calculated

**Emissions in reporting year (metric tons CO<sub>2</sub>e)**

475,391

**Emissions calculation methodology**

Spend-based method

**Percentage of emissions calculated using data obtained from suppliers or value chain partners**

0

**Please explain**

Calculated using the GHG Protocol Quantis Scope 3 Evaluator tool. Calculations are based on APSEZ group level OPEX expenditure for the reporting year.

**Capital goods**

---

**Evaluation status**

Relevant, calculated

**Emissions in reporting year (metric tons CO<sub>2</sub>e)**

848,219

**Emissions calculation methodology**

Spend-based method

Investment-specific method

**Percentage of emissions calculated using data obtained from suppliers or value chain partners**

0

**Please explain**

Calculated using the GHG Protocol Quantis Scope 3 Evaluator tool. Calculations are based on APSEZ group level CAPEX expenditure for the reporting year.

**Fuel-and-energy-related activities (not included in Scope 1 or 2)**

---

**Evaluation status**

Relevant, calculated

**Emissions in reporting year (metric tons CO2e)**

132,022

**Emissions calculation methodology**

Supplier-specific method

Average data method

Fuel-based method

**Percentage of emissions calculated using data obtained from suppliers or value chain partners**

0

**Please explain**

APSEZ processes are mainly fueled by liquid fuels(Diesel, Petrol & Biodisel), gaseous fuels(LPG, PNG & acetylene) and electricity. Calculations are based on well-to-tank factors provided by EPA and % of Transmission and distribution losses as per India's central bank.

**Upstream transportation and distribution**

---

**Evaluation status**

Relevant, calculated

**Emissions in reporting year (metric tons CO2e)**

422,719

**Emissions calculation methodology**

Average data method

Fuel-based method

Distance-based method

**Percentage of emissions calculated using data obtained from suppliers or value chain partners**



100

**Please explain**

Included the emissions from the vessels Inside our port premises. Standard emission factors of fuels from the WRI GHG emission factors considered for accounting of emissions.

**Waste generated in operations**

---

**Evaluation status**

Relevant, calculated

**Emissions in reporting year (metric tons CO<sub>2</sub>e)**

329

**Emissions calculation methodology**

Average data method

Distance-based method

**Percentage of emissions calculated using data obtained from suppliers or value chain partners**

0

**Please explain**

Calculations are based on the total waste material disposed in the reporting year. Emissions from the 3rd party reuse/recycle and incineration have been calculated. Emission factors for different materials based on directed to disposal are sourced from WBCSD – WRI Based-: "The Greenhouse Gas Protocol: A Corporate Accounting and Reporting Standard (Revised Edition)". Emissions occur in the transportation of waste for treatment.

**Business travel**

---

**Evaluation status**

Relevant, calculated

**Emissions in reporting year (metric tons CO<sub>2</sub>e)**

169

**Emissions calculation methodology**

Average data method  
Distance-based method

**Percentage of emissions calculated using data obtained from suppliers or value chain partners**

0

**Please explain**

Based on in-house travel tracker with Travel Requisition system. Standard emission factors for road, rail and air travel are sourced from the Indian GHG program. For business-related activities employees undertake air, train, and road travel.

**Employee commuting**

---

**Evaluation status**

Relevant, calculated

**Emissions in reporting year (metric tons CO2e)**

1,367

**Emissions calculation methodology**

Average data method  
Distance-based method

**Percentage of emissions calculated using data obtained from suppliers or value chain partners**

0

**Please explain**

Employee travel to corporate office, ports and movement of other admin vehicles for internal movement of employees' results in GHG emissions have been taken into consideration, using the appropriate emission factors provided by the GHG protocol and India GHG program for road transportation. To determine the total fuel consumed by the bus, the distance travelled was multiplied by the average bus mileage. The emission

factor for the bus fuel was sourced from the GHG protocol's cross-sector tool for transport fuel use, while the emission factor for the SUV fuel was obtained from the India GHG program for road transportation.

### Upstream leased assets

---

#### Evaluation status

Not relevant, explanation provided

#### Please explain

We don't have any upstream leased assets in the reporting boundary. Therefore it is not applicable to APSEZ.

### Downstream transportation and distribution

---

#### Evaluation status

Relevant, calculated

#### Emissions in reporting year (metric tons CO<sub>2</sub>e)

97,653

#### Emissions calculation methodology

Average data method  
Distance-based method

#### Percentage of emissions calculated using data obtained from suppliers or value chain partners

100

#### Please explain

Included are outbound shipments done through our logistics chain. Transportation of cargo through railways is one of the important activities for APSEZ. As the locomotive is operated by Indian railways, it is considered as scope 3 emissions. Calculations are based on downstream transportation and distribution distances. The emissions are calculated based on emission factor library of Indian GHG Program and WBCSD – WRI Based-: "The Greenhouse Gas Protocol: A Corporate Accounting and Reporting Standard (Revised Edition)".

### Processing of sold products

---

**Evaluation status**

Not relevant, explanation provided

**Please explain**

We are in the business of port operations and logistics services and do not produce any product. Thus, this is not applicable.

**Use of sold products**

---

**Evaluation status**

Not relevant, explanation provided

**Please explain**

We are into the business of port operations and logistics services and do not produce any product. Thus, this is not applicable.

**End of life treatment of sold products**

---

**Evaluation status**

Not relevant, explanation provided

**Please explain**

We are in the business of port operations and logistics services and do not produce any product. Thus, this is not applicable.

**Downstream leased assets**

---

**Evaluation status**

Relevant, calculated

**Emissions in reporting year (metric tons CO<sub>2</sub>e)**

11,589

**Emissions calculation methodology**

Supplier-specific method

Average data method

Average product method

Other, please specify

**Percentage of emissions calculated using data obtained from suppliers or value chain partners**

100

**Please explain**

These are the emissions accounted for the office buildings given on lease to others. The emission value has been calculated by adopting WBCSD – WRI Based-: "The Greenhouse Gas Protocol: A Corporate Accounting and Reporting Standard (Revised Edition).

**Franchises**

---

**Evaluation status**

Not relevant, explanation provided

**Please explain**

APSEZ is not into a franchise model of work. Hence, it is not applicable.

**Investments**

---

**Evaluation status**

Relevant, calculated

**Emissions in reporting year (metric tons CO<sub>2</sub>e)**

33,614

**Emissions calculation methodology**

Supplier-specific method

Average data method

Distance-based method

Investment-specific method

**Percentage of emissions calculated using data obtained from suppliers or value chain partners**

100

**Please explain**

This emission occurs in our joint ventures namely AICTPL and ACMTPL. The emission value has been calculated by adopting WBCSD – WRI Based-: "The Greenhouse Gas Protocol: A Corporate Accounting and Reporting Standard (Revised Edition).

**Other (upstream)**

---

**Evaluation status**

Not relevant, explanation provided

**Please explain**

Our upstream emissions are from transportation and distribution and upstream leased assets which are been covered under the said scope 3 parameters. Therefore, Other (upstream) is not applicable to APSEZ.

**Other (downstream)**

---

**Evaluation status**

Not relevant, explanation provided

**Please explain**

Our downstream emissions are from transportation and distribution and downstream leased assets which are been covered under the said scope 3 parameters. Therefore, Other (downstream) is not applicable to APSEZ.

## **C6.5a**

**(C6.5a) Disclose or restate your Scope 3 emissions data for previous years.**

**Past year 1**

---

**Start date**

April 1, 2021

**End date**

March 31, 2022

**Scope 3: Purchased goods and services (metric tons CO2e)**

**Scope 3: Capital goods (metric tons CO2e)**

**Scope 3: Fuel and energy-related activities (not included in Scopes 1 or 2) (metric tons CO2e)**

44,492

**Scope 3: Upstream transportation and distribution (metric tons CO2e)**

288,191

**Scope 3: Waste generated in operations (metric tons CO2e)**

58

**Scope 3: Business travel (metric tons CO2e)**

531

**Scope 3: Employee commuting (metric tons CO2e)**

**Scope 3: Upstream leased assets (metric tons CO2e)**

**Scope 3: Downstream transportation and distribution (metric tons CO2e)**

69,097

**Scope 3: Processing of sold products (metric tons CO2e)**

**Scope 3: Use of sold products (metric tons CO2e)**

**Scope 3: End of life treatment of sold products (metric tons CO2e)**

**Scope 3: Downstream leased assets (metric tons CO2e)**

10,236

**Scope 3: Franchises (metric tons CO2e)**

**Scope 3: Investments (metric tons CO2e)**

52,242

**Scope 3: Other (upstream) (metric tons CO2e)**

**Scope 3: Other (downstream) (metric tons CO2e)**

**Comment**

**Past year 2**

---

**Start date**

April 1, 2020

**End date**

March 31, 2021



**Scope 3: Purchased goods and services (metric tons CO2e)**

0

**Scope 3: Capital goods (metric tons CO2e)**

0

**Scope 3: Fuel and energy-related activities (not included in Scopes 1 or 2) (metric tons CO2e)**

51,465

**Scope 3: Upstream transportation and distribution (metric tons CO2e)**

206,645

**Scope 3: Waste generated in operations (metric tons CO2e)**

58

**Scope 3: Business travel (metric tons CO2e)**

227

**Scope 3: Employee commuting (metric tons CO2e)**

2,626

**Scope 3: Upstream leased assets (metric tons CO2e)**

0

**Scope 3: Downstream transportation and distribution (metric tons CO2e)**

47,213

**Scope 3: Processing of sold products (metric tons CO2e)**

0

**Scope 3: Use of sold products (metric tons CO2e)**

0

**Scope 3: End of life treatment of sold products (metric tons CO2e)**

0

**Scope 3: Downstream leased assets (metric tons CO2e)**

8,047

**Scope 3: Franchises (metric tons CO2e)**

0

**Scope 3: Investments (metric tons CO2e)**

32,061

**Scope 3: Other (upstream) (metric tons CO2e)**

0

**Scope 3: Other (downstream) (metric tons CO2e)**

0

**Comment**

APSEZ calculated Scope 3 emissions based on Category 3- Fuel and energy-related activities, Category 4- Upstream transportation and distribution, Category 5- Waste generated in operations, Category 6- Business travel, Category 7- Employee commuting, Category 15- Investments.

## **C6.7**

**(C6.7) Are carbon dioxide emissions from biogenic carbon relevant to your organization?**

No

## C6.10

**(C6.10) Describe your gross global combined Scope 1 and 2 emissions for the reporting year in metric tons CO<sub>2</sub>e per unit currency total revenue and provide any additional intensity metrics that are appropriate to your business operations.**

---

**Intensity figure**

17.1

**Metric numerator (Gross global combined Scope 1 and 2 emissions, metric tons CO<sub>2</sub>e)**

383,053.07

**Metric denominator**

unit total revenue

**Metric denominator: Unit total**

224,053,900,000

**Scope 2 figure used**

Location-based

**% change from previous year**

4.11

**Direction of change**

Decreased

**Reason(s) for change**

Other emissions reduction activities

Change in revenue

**Please explain**

Increased revenue (+24% growth over previous year), emission reduction initiatives e.g. Adoption of the best available energy efficiency technologies and implementation of the digitalization to track and reduce the energy losses on real time basis.

## C7. Emissions breakdowns

### C7.1

**(C7.1) Does your organization break down its Scope 1 emissions by greenhouse gas type?**

Yes

#### C7.1a

**(C7.1a) Break down your total gross global Scope 1 emissions by greenhouse gas type and provide the source of each used greenhouse warming potential (GWP).**

Greenhouse gas	Scope 1 emissions (metric tons of CO2e)	GWP Reference
CO2	118,871.47	IPCC Fifth Assessment Report (AR5 – 100 year)
CH4	109.91	IPCC Fifth Assessment Report (AR5 – 100 year)
N2O	239.16	IPCC Fifth Assessment Report (AR5 – 100 year)
HFCs	35.41	IPCC Fifth Assessment Report (AR5 – 100 year)
Other, please specify HCFCs principally R22, R410 and R407C	1,846.22	IPCC Fifth Assessment Report (AR5 – 100 year)

### C7.2

**(C7.2) Break down your total gross global Scope 1 emissions by country/area/region.**

Country/area/region	Scope 1 emissions (metric tons CO2e)
---------------------	--------------------------------------

India	121,102.16
-------	------------

## C7.3

**(C7.3) Indicate which gross global Scope 1 emissions breakdowns you are able to provide.**

By business division

## C7.3a

**(C7.3a) Break down your total gross global Scope 1 emissions by business division.**

Business division	Scope 1 emissions (metric ton CO2e)
Ports	55,443.85
Dredging	32,393.08
Marine	25,655.12
Others (KAPL, MIAPL, MITAP & AHMPL)	5,138.41
Logistics	2,366.88
Agri Logistics	104.82

## C7.5

**(C7.5) Break down your total gross global Scope 2 emissions by country/area/region.**

Country/area/region	Scope 2, location-based (metric tons CO2e)	Scope 2, market-based (metric tons CO2e)
India	261,950.91	

## C7.6

**(C7.6) Indicate which gross global Scope 2 emissions breakdowns you are able to provide.**

By business division

## C7.6a

**(C7.6a) Break down your total gross global Scope 2 emissions by business division.**

Business division	Scope 2, location-based (metric tons CO2e)	Scope 2, market-based (metric tons CO2e)
Ports	258,416.79	
Dredging	0	
Marine	0	
Others (KAPL, MIAPL, MITAP & AHMPL)	1,022.83	
Logistics	961.33	
Agri Logistics	1,549.97	

## C7.7

**(C7.7) Is your organization able to break down your emissions data for any of the subsidiaries included in your CDP response?**

Yes

## C7.7a

**(C7.7a) Break down your gross Scope 1 and Scope 2 emissions by subsidiary.**

**Subsidiary name**

Adani Agri Logistics (Dewas) Ltd.

**Primary activity**

Logistics - 3rd party

**Select the unique identifier(s) you are able to provide for this subsidiary**

Another unique identifier, please specify

Corporate Identification Number

**ISIN code – bond**

**ISIN code – equity**

**CUSIP number**

**Ticker symbol**

**SEDOL code**

**LEI number**

**Other unique identifier**

U63090GJ2014PLC079629

**Scope 1 emissions (metric tons CO<sub>2</sub>e)**

5

**Scope 2, location-based emissions (metric tons CO<sub>2</sub>e)**

68

**Scope 2, market-based emissions (metric tons CO<sub>2</sub>e)**

**Comment**

---

**Subsidiary name**

Adani Agri Logistics (Harda) Ltd

**Primary activity**

Logistics - 3rd party

**Select the unique identifier(s) you are able to provide for this subsidiary**

Another unique identifier, please specify

Corporate Identification Number

**ISIN code – bond**

**ISIN code – equity**

**CUSIP number**

**Ticker symbol**

**SEDOL code**



**LEI number**

**Other unique identifier**

U63023GJ2014PLC079601

**Scope 1 emissions (metric tons CO2e)**

24

**Scope 2, location-based emissions (metric tons CO2e)**

42

**Scope 2, market-based emissions (metric tons CO2e)**

**Comment**

---

**Subsidiary name**

Adani Agri Logistics (Hoshangabad) Ltd.

**Primary activity**

**Select the unique identifier(s) you are able to provide for this subsidiary**

Another unique identifier, please specify

Corporate Identification Number

**ISIN code – bond**



**ISIN code – equity**

**CUSIP number**

**Ticker symbol**

**SEDOL code**

**LEI number**

**Other unique identifier**

U63000GJ2014PLC079611

**Scope 1 emissions (metric tons CO2e)**

11

**Scope 2, location-based emissions (metric tons CO2e)**

63

**Scope 2, market-based emissions (metric tons CO2e)**

**Comment**



**Subsidiary name**

Adani Agri Logistics (Kotkapura) Ltd.

**Primary activity**

Logistics - 3rd party

**Select the unique identifier(s) you are able to provide for this subsidiary**

Another unique identifier, please specify  
Corporate Identification Number

**ISIN code – bond**

**ISIN code – equity**

**CUSIP number**

**Ticker symbol**

**SEDOL code**

**LEI number**

**Other unique identifier**

U63090GJ2016PLC086571

**Scope 1 emissions (metric tons CO<sub>2</sub>e)**

2

**Scope 2, location-based emissions (metric tons CO2e)**

50

**Scope 2, market-based emissions (metric tons CO2e)**

**Comment**

---

**Subsidiary name**

Adani Agri Logistics (Moga) Ltd.

**Primary activity**

Logistics - 3rd party

**Select the unique identifier(s) you are able to provide for this subsidiary**

Another unique identifier, please specify

Corporate Identification Number

**ISIN code – bond**

**ISIN code – equity**

**CUSIP number**

**Ticker symbol**

**SEDOL code**

**LEI number**

**Other unique identifier**

U63030GJ2017PLC095190

**Scope 1 emissions (metric tons CO2e)**

4

**Scope 2, location-based emissions (metric tons CO2e)**

407

**Scope 2, market-based emissions (metric tons CO2e)**

**Comment**

---

**Subsidiary name**

Adani Agri Logistics (MP) Ltd.

**Primary activity**

Logistics - 3rd party

**Select the unique identifier(s) you are able to provide for this subsidiary**

Another unique identifier, please specify

Corporate Identification Number

**ISIN code – bond**

**ISIN code – equity**

**CUSIP number**

**Ticker symbol**

**SEDOL code**

**LEI number**

**Other unique identifier**

U74120GJ2014PLC079278

**Scope 1 emissions (metric tons CO<sub>2</sub>e)**

8

**Scope 2, location-based emissions (metric tons CO<sub>2</sub>e)**

64

**Scope 2, market-based emissions (metric tons CO<sub>2</sub>e)**

## **Comment**

---

### **Subsidiary name**

Adani Agri Logistics (Satna) Ltd.

### **Primary activity**

Logistics - 3rd party

### **Select the unique identifier(s) you are able to provide for this subsidiary**

Another unique identifier, please specify

Corporate Identification Number

### **ISIN code – bond**

### **ISIN code – equity**

### **CUSIP number**

### **Ticker symbol**

### **SEDOL code**

**LEI number**

**Other unique identifier**

U63000GJ2014PLC079612

**Scope 1 emissions (metric tons CO2e)**

6

**Scope 2, location-based emissions (metric tons CO2e)**

65

**Scope 2, market-based emissions (metric tons CO2e)**

**Comment**

---

**Subsidiary name**

Adani Agri Logistics (Ujjain) Ltd.

**Primary activity**

Logistics - 3rd party

**Select the unique identifier(s) you are able to provide for this subsidiary**

Another unique identifier, please specify

Corporate Identification Number

**ISIN code – bond**





**ISIN code – equity**

**CUSIP number**

**Ticker symbol**

**SEDOL code**

**LEI number**

**Other unique identifier**

U63000GJ2014PLC079619

**Scope 1 emissions (metric tons CO2e)**

7

**Scope 2, location-based emissions (metric tons CO2e)**

62

**Scope 2, market-based emissions (metric tons CO2e)**

**Comment**

---

**Subsidiary name**

Adani Agri Logistics Ltd.

**Primary activity**

Logistics - 3rd party

**Select the unique identifier(s) you are able to provide for this subsidiary**

Another unique identifier, please specify

Corporate Identification Number

**ISIN code – bond**

**ISIN code – equity**

**CUSIP number**

**Ticker symbol**

**SEDOL code**

**LEI number**

**Other unique identifier**

U63090GJ2005PLC045356

**Scope 1 emissions (metric tons CO2e)**

38

**Scope 2, location-based emissions (metric tons CO2e)**

729

**Scope 2, market-based emissions (metric tons CO2e)**

**Comment**

---

**Subsidiary name**

Adani Ennore Container Terminal Pvt. Ltd.

**Primary activity**

Transportation support services

**Select the unique identifier(s) you are able to provide for this subsidiary**

Another unique identifier, please specify

Corporate Identification Number

**ISIN code – bond**

**ISIN code – equity**

**CUSIP number**

**Ticker symbol**

**SEDOL code**

**LEI number**

**Other unique identifier**

U61200GJ2014PTC078795

**Scope 1 emissions (metric tons CO<sub>2</sub>e)**

849

**Scope 2, location-based emissions (metric tons CO<sub>2</sub>e)**

3,831

**Scope 2, market-based emissions (metric tons CO<sub>2</sub>e)**

**Comment**

---

**Subsidiary name**

Adani Gangavaram Port Ltd.



**Primary activity**

Transportation support services

**Select the unique identifier(s) you are able to provide for this subsidiary**

Another unique identifier, please specify

Corporate Identification Number

**ISIN code – bond**

**ISIN code – equity**

**CUSIP number**

**Ticker symbol**

**SEDOL code**

**LEI number**

**Other unique identifier**

U61100GJ2021PLC124091

**Scope 1 emissions (metric tons CO<sub>2</sub>e)**

13,914

**Scope 2, location-based emissions (metric tons CO<sub>2</sub>e)**

36,063

**Scope 2, market-based emissions (metric tons CO<sub>2</sub>e)**

**Comment**

---

**Subsidiary name**

Adani Hazira Port Ltd.

**Primary activity**

Transportation support services

**Select the unique identifier(s) you are able to provide for this subsidiary**

Another unique identifier, please specify

Corporate Identification Number

**ISIN code – bond**

**ISIN code – equity**

**CUSIP number**

**Ticker symbol**

**SEDOL code**

**LEI number**

**Other unique identifier**

U45209GJ2009PLC058789

**Scope 1 emissions (metric tons CO<sub>2</sub>e)**

2,632

**Scope 2, location-based emissions (metric tons CO<sub>2</sub>e)**

29,510

**Scope 2, market-based emissions (metric tons CO<sub>2</sub>e)**

**Comment**

---

**Subsidiary name**

Adani Hospitals Mundra Pvt. Ltd.

**Primary activity**

Transportation support services

**Select the unique identifier(s) you are able to provide for this subsidiary**

Another unique identifier, please specify



Corporate Identification Number

**ISIN code – bond**

**ISIN code – equity**

**CUSIP number**

**Ticker symbol**

**SEDOL code**

**LEI number**

**Other unique identifier**

U85110GJ2013PTC077422

**Scope 1 emissions (metric tons CO2e)**

**Scope 2, location-based emissions (metric tons CO2e)**

421

**Scope 2, market-based emissions (metric tons CO2e)**



**Comment**

---

**Subsidiary name**

Adani Kandla Bulk Terminal Pvt. Ltd.

**Primary activity**

Transportation support services

**Select the unique identifier(s) you are able to provide for this subsidiary**

Another unique identifier, please specify

Corporate Identification Number

**ISIN code – bond**

**ISIN code – equity**

**CUSIP number**

**Ticker symbol**

**SEDOL code**

**LEI number**

**Other unique identifier**

U63090GJ2012PTC069305

**Scope 1 emissions (metric tons CO2e)**

338

**Scope 2, location-based emissions (metric tons CO2e)**

9,342

**Scope 2, market-based emissions (metric tons CO2e)**

**Comment**

---

**Subsidiary name**

Adani Krishnapatnam Port Ltd.

**Primary activity**

Transportation support services

**Select the unique identifier(s) you are able to provide for this subsidiary**

Another unique identifier, please specify

Corporate Identification Number

**ISIN code – bond**

**ISIN code – equity**



**CUSIP number**

**Ticker symbol**

**SEDOL code**

**LEI number**

**Other unique identifier**

U45203GJ1996PLC128239

**Scope 1 emissions (metric tons CO2e)**

15,284

**Scope 2, location-based emissions (metric tons CO2e)**

28,081

**Scope 2, market-based emissions (metric tons CO2e)**

**Comment**

---

**Subsidiary name**

Adani Logistics Ltd.

**Primary activity**

Logistics - 3rd party

**Select the unique identifier(s) you are able to provide for this subsidiary**

Another unique identifier, please specify

Corporate Identification Number

**ISIN code – bond**

**ISIN code – equity**

**CUSIP number**

**Ticker symbol**

**SEDOL code**

**LEI number**

**Other unique identifier**

U63090GJ2005PLC046419

**Scope 1 emissions (metric tons CO<sub>2</sub>e)**

2,367

**Scope 2, location-based emissions (metric tons CO2e)**

961

**Scope 2, market-based emissions (metric tons CO2e)**

**Comment**

---

**Subsidiary name**

Adani Murmugao Port Terminal Pvt. Ltd.

**Primary activity**

Transportation support services

**Select the unique identifier(s) you are able to provide for this subsidiary**

Another unique identifier, please specify

Corporate Identification Number

**ISIN code – bond**

**ISIN code – equity**

**CUSIP number**



**Ticker symbol**

**SEDOL code**

**LEI number**

**Other unique identifier**

U61100GJ2009PTC057727

**Scope 1 emissions (metric tons CO2e)**

152

**Scope 2, location-based emissions (metric tons CO2e)**

6,507

**Scope 2, market-based emissions (metric tons CO2e)**

**Comment**

---

**Subsidiary name**

Adani Petronet (Dahej) Port Limited

**Primary activity**

Transportation support services

**Select the unique identifier(s) you are able to provide for this subsidiary**

Another unique identifier, please specify

Corporate Identification Number

**ISIN code – bond**

**ISIN code – equity**

**CUSIP number**

**Ticker symbol**

**SEDOL code**

**LEI number**

**Other unique identifier**

U63012GJ2003PLC041919

**Scope 1 emissions (metric tons CO<sub>2</sub>e)**

922

**Scope 2, location-based emissions (metric tons CO<sub>2</sub>e)**

17,993

**Scope 2, market-based emissions (metric tons CO<sub>2</sub>e)**

## Comment

---

### Subsidiary name

Adani Ports and special economic zone limited

### Primary activity

Transportation support services

### Select the unique identifier(s) you are able to provide for this subsidiary

Another unique identifier, please specify

Corporate Identification Number

### ISIN code – bond

### ISIN code – equity

### CUSIP number

### Ticker symbol

### SEDOL code



**LEI number**

**Other unique identifier**

L63090GJ1998PLC034182

**Scope 1 emissions (metric tons CO2e)**

13,117

**Scope 2, location-based emissions (metric tons CO2e)**

55,836

**Scope 2, market-based emissions (metric tons CO2e)**

**Comment**

---

**Subsidiary name**

Dighi Port Ltd.

**Primary activity**

Transportation support services

**Select the unique identifier(s) you are able to provide for this subsidiary**

Another unique identifier, please specify

Corporate Identification Number

**ISIN code – bond**

**ISIN code – equity**

**CUSIP number**

**Ticker symbol**

**SEDOL code**

**LEI number**

**Other unique identifier**

U35110MH2000PLC127953

**Scope 1 emissions (metric tons CO<sub>2</sub>e)**

422

**Scope 2, location-based emissions (metric tons CO<sub>2</sub>e)**

344

**Scope 2, market-based emissions (metric tons CO<sub>2</sub>e)**

**Comment**

---

**Subsidiary name**

Karnavati Aviation Pvt. Ltd.

**Primary activity**

Travel services

**Select the unique identifier(s) you are able to provide for this subsidiary**

Another unique identifier, please specify

Corporate Identification Number

**ISIN code – bond**

**ISIN code – equity**

**CUSIP number**

**Ticker symbol**

**SEDOL code**

**LEI number**

**Other unique identifier**

U63090GJ2007PTC051309

**Scope 1 emissions (metric tons CO2e)**

5,138

**Scope 2, location-based emissions (metric tons CO2e)**

**Scope 2, market-based emissions (metric tons CO2e)**

**Comment**

Travel Services for company employees.

---

**Subsidiary name**

Marine Infrastructure Developer Pvt Ltd.

**Primary activity**

Transportation support services

**Select the unique identifier(s) you are able to provide for this subsidiary**

Another unique identifier, please specify

Corporate Identification Number

**ISIN code – bond**

**ISIN code – equity**

**CUSIP number**

**Ticker symbol**

**SEDOL code**

**LEI number**

**Other unique identifier**

U74999TN2016PTC103769

**Scope 1 emissions (metric tons CO<sub>2</sub>e)**

2,306

**Scope 2, location-based emissions (metric tons CO<sub>2</sub>e)**

4,572

**Scope 2, market-based emissions (metric tons CO<sub>2</sub>e)**

**Comment**

---

**Subsidiary name**

Mundra International Airport Pvt. Ltd.

**Primary activity**

Travel services

**Select the unique identifier(s) you are able to provide for this subsidiary**

Another unique identifier, please specify

Corporate Identification Number

**ISIN code – bond**

**ISIN code – equity**

**CUSIP number**

**Ticker symbol**

**SEDOL code**

**LEI number**

**Other unique identifier**

U62200GJ2009PTC057726

**Scope 1 emissions (metric tons CO<sub>2</sub>e)**

**Scope 2, location-based emissions (metric tons CO2e)**

67

**Scope 2, market-based emissions (metric tons CO2e)**

**Comment**

---

**Subsidiary name**

Mundra SEZ Textile and Apparel Park Pvt. Ltd.

**Primary activity**

Transportation support services

**Select the unique identifier(s) you are able to provide for this subsidiary**

Another unique identifier, please specify

Corporate Identification Number

**ISIN code – bond**

**ISIN code – equity**

**CUSIP number**

**Ticker symbol**

**SEDOL code**

**LEI number**

**Other unique identifier**

U74999GJ2005PTC046978

**Scope 1 emissions (metric tons CO2e)**

**Scope 2, location-based emissions (metric tons CO2e)**

90

**Scope 2, market-based emissions (metric tons CO2e)**

**Comment**

---

**Subsidiary name**

Shanti Sagar International Dredging Ltd.

**Primary activity**

Industrial services



**Select the unique identifier(s) you are able to provide for this subsidiary**

Another unique identifier, please specify

Corporate Identification Number

**ISIN code – bond**

**ISIN code – equity**

**CUSIP number**

**Ticker symbol**

**SEDOL code**

**LEI number**

**Other unique identifier**

U01403GJ2015PLC083090

**Scope 1 emissions (metric tons CO<sub>2</sub>e)**

32,393

**Scope 2, location-based emissions (metric tons CO<sub>2</sub>e)**

**Scope 2, market-based emissions (metric tons CO<sub>2</sub>e)**

## Comment

---

### Subsidiary name

The Adani Harbour Services Limited

### Primary activity

Industrial services

### Select the unique identifier(s) you are able to provide for this subsidiary

Another unique identifier, please specify

Corporate Identification Number

### ISIN code – bond

### ISIN code – equity

### CUSIP number

### Ticker symbol

### SEDOL code

### LEI number

**Other unique identifier**

U61100GJ2009FLC095953

**Scope 1 emissions (metric tons CO2e)**

25,655

**Scope 2, location-based emissions (metric tons CO2e)**

**Scope 2, market-based emissions (metric tons CO2e)**

**Comment**

---

**Subsidiary name**

The Dhamra Port Company Ltd.

**Primary activity**

Transportation support services

**Select the unique identifier(s) you are able to provide for this subsidiary**

Another unique identifier, please specify

Corporate Identification Number

**ISIN code – bond**

**ISIN code – equity**

**CUSIP number**

**Ticker symbol**

**SEDOL code**

**LEI number**

**Other unique identifier**

U45205OR1998PLC005448

**Scope 1 emissions (metric tons CO<sub>2</sub>e)**

5,490

**Scope 2, location-based emissions (metric tons CO<sub>2</sub>e)**

66,783

**Scope 2, market-based emissions (metric tons CO<sub>2</sub>e)**

**Comment**

## C7.9

**(C7.9) How do your gross global emissions (Scope 1 and 2 combined) for the reporting year compare to those of the previous reporting year?**

Increased

### C7.9a

**(C7.9a) Identify the reasons for any change in your gross global emissions (Scope 1 and 2 combined), and for each of them specify how your emissions compare to the previous year.**

	Change in emissions (metric tons CO2e)	Direction of change in emissions	Emissions value (percentage)	Please explain calculation
Change in renewable energy consumption	4,458	Increased	1.4	5643 MWh reduction in renewable energy consumption in FY23 over FY22. Formula: (Reduction in renewable energy in MWh x Country specific Electricity emission factor in tCO2e/MWh in Scope 2 ) / (FY22 Emissions under Scope 1 & 2) * 100 Calculations: Emissions due to 5643 MWh reduction in renewable energy consumption = 5643*.79 = 4458tCO2e Total FY22 Scope 1 & Scope2 emissions = 322499tCO2e % of Emission Increased = 4458/322499 = 1.4%
Other emissions reduction activities	17,563	Decreased	5.45	Impact due to Emission reduction initiatives as listed in C-4.3b and previous year projects also. Formula: (Total emissions saved from implemented Emission reduction

				initiatives under Scope 1&2) / (FY22 Emissions under Scope 1 & 2) * 100 Calculation: $17,563/322499 * 100 = 5.45\%$
Divestment	0	No change	0	Not Applicable
Acquisitions	49,977	Increased	15.5	APSEZ completed the acquisition of Gangavaram Port Private Limited on 10th october 2022. Formula: Total emission in FY23 from Adani gangavaram port private limited under scope 1 & scope 2/Total emission under scope 1 & scope 2 * 100  Calculation: Adani gangavaram port private limited under scope 1 & scope 2 in FY23 - 49977.03 tCO2e Total Emissions under scope 1 & scope 2 in FY22 - 322499 tCO2e Emission value % reduction = $49977.03/322499*100 = 15.5\%$
Mergers	0	No change		Not Applicable
Change in output	24,459	Increased	9.13	Production increase in various sites had been taken into consideration. Formula: (1) Site-wise impact due to cargo operation increase = (Site-wise Emission Intensity in FY22 Scope 1+ 2 Location Based) *{(Cargo handled FY23) - (Production_FY22)} (2) Aggregated impact due to cargo operation increase = Sum of site-wise impact due to cargo volume increased (in tCO2e) (3) % change due to cargo operation change (i.e. output) $=(\text{Aggregated impact due to production}) / (\text{Scope1\&2 Location Based})$

				Emissions during FY22) * 100 Calculation: (Increase in Scope-1 & 2 location based emissions at 29,459 tCO2e) / (Scope 1 and 2 location based emissions during FY22 at 322499)* 100 = 9.13%
Change in methodology	0	No change		Not Applicable
Change in boundary	0	No change		Not Applicable
Change in physical operating conditions	0	No change		Not Applicable
Unidentified	0	No change		Not Applicable
Other	0	No change		Not Applicable

## C7.9b

**(C7.9b) Are your emissions performance calculations in C7.9 and C7.9a based on a location-based Scope 2 emissions figure or a market-based Scope 2 emissions figure?**

Location-based

## C8. Energy

### C8.1

**(C8.1) What percentage of your total operational spend in the reporting year was on energy?**

More than 10% but less than or equal to 15%

## C8.2

**(C8.2) Select which energy-related activities your organization has undertaken.**

	Indicate whether your organization undertook this energy-related activity in the reporting year
Consumption of fuel (excluding feedstocks)	Yes
Consumption of purchased or acquired electricity	Yes
Consumption of purchased or acquired heat	No
Consumption of purchased or acquired steam	No
Consumption of purchased or acquired cooling	No
Generation of electricity, heat, steam, or cooling	Yes

## C8.2a

**(C8.2a) Report your organization's energy consumption totals (excluding feedstocks) in MWh.**

	Heating value	MWh from renewable sources	MWh from non-renewable sources	Total (renewable and non-renewable) MWh
Consumption of fuel (excluding feedstock)	LHV (lower heating value)	0	451,602.15	451,602.15
Consumption of purchased or acquired electricity		5,442.51	331,583.43	337,025.94
Consumption of self-generated non-fuel renewable energy		48,080.47		48,080.47
Total energy consumption		53,522.99	783,185.58	836,708.57



## C8.2b

**(C8.2b) Select the applications of your organization’s consumption of fuel.**

	Indicate whether your organization undertakes this fuel application
Consumption of fuel for the generation of electricity	No
Consumption of fuel for the generation of heat	No
Consumption of fuel for the generation of steam	No
Consumption of fuel for the generation of cooling	No
Consumption of fuel for co-generation or tri-generation	No

## C8.2c

**(C8.2c) State how much fuel in MWh your organization has consumed (excluding feedstocks) by fuel type.**

### Sustainable biomass

#### Heating value

LHV

#### Total fuel MWh consumed by the organization

0

#### Comment

APSEZ does not consume sustainable biomass

### Other biomass

#### Heating value

LHV

**Total fuel MWh consumed by the organization**

0

**Comment**

APSEZ does not consume biomass.

**Other renewable fuels (e.g. renewable hydrogen)**

---

**Heating value**

LHV

**Total fuel MWh consumed by the organization**

53,523

**Comment**

**Coal**

---

**Heating value**

LHV

**Total fuel MWh consumed by the organization**

0

**Comment**

APSEZ does not not consume coal in any of our operations.

**Oil**

---

**Heating value**

LHV

**Total fuel MWh consumed by the organization**

449,964.17

**Comment**

APSEZ consumes HSD, Petrol, Fuel Oil/ HFO and Jet kerosene

**Gas**

---

**Heating value**

LHV

**Total fuel MWh consumed by the organization**

1,637.98

**Comment**

APSEZ consumes LPG, LNG and Acetylene.

**Other non-renewable fuels (e.g. non-renewable hydrogen)**

---

**Heating value**

LHV

**Total fuel MWh consumed by the organization**

331,583

**Comment**

**Total fuel**

---

**Heating value**

LHV

**Total fuel MWh consumed by the organization**

836,709

**Comment**

**C8.2d**

**(C8.2d) Provide details on the electricity, heat, steam, and cooling your organization has generated and consumed in the reporting year.**

	Total Gross generation (MWh)	Generation that is consumed by the organization (MWh)	Gross generation from renewable sources (MWh)	Generation from renewable sources that is consumed by the organization (MWh)
Electricity	48,080.47	48,080.47	48,080.47	48,080.47
Heat	0	0	0	0
Steam	0	0	0	0
Cooling	0	0	0	0

**C8.2g**

**(C8.2g) Provide a breakdown by country/area of your non-fuel energy consumption in the reporting year.**

**Country/area**

India

**Consumption of purchased electricity (MWh)**

290,941

**Consumption of self-generated electricity (MWh)**

48,080

**Consumption of purchased heat, steam, and cooling (MWh)**

0

**Consumption of self-generated heat, steam, and cooling (MWh)**

0

**Total non-fuel energy consumption (MWh) [Auto-calculated]**

339,021

## C9. Additional metrics

### C9.1

**(C9.1) Provide any additional climate-related metrics relevant to your business.**

---

**Description**

Waste

**Metric value**

0.36

**Metric numerator**

Metric ton of waste disposed

**Metric denominator (intensity metric only)**

INR of revenue

**% change from previous year**

17.5

**Direction of change**

Decreased

**Please explain**

The waste disposal intensity has declined due to measures taken to handle waste on 5-R principle- reduce, recycle, reuse, reprocess and recovery across the sites.

## C10. Verification

### C10.1

**(C10.1) Indicate the verification/assurance status that applies to your reported emissions.**

	Verification/assurance status
Scope 1	Third-party verification or assurance process in place
Scope 2 (location-based or market-based)	Third-party verification or assurance process in place
Scope 3	Third-party verification or assurance process in place

### C10.1a

**(C10.1a) Provide further details of the verification/assurance undertaken for your Scope 1 emissions, and attach the relevant statements.**

**Verification or assurance cycle in place**

Annual process

**Status in the current reporting year**

Complete

**Type of verification or assurance**

Reasonable assurance

**Attach the statement**

 APSEZ Assurance Statements CDP 2023.pdf

**Page/ section reference**

All

**Relevant standard**

ISAE 3410

**Proportion of reported emissions verified (%)**

100

## C10.1b

**(C10.1b) Provide further details of the verification/assurance undertaken for your Scope 2 emissions and attach the relevant statements.**

---

**Scope 2 approach**

Scope 2 location-based

**Verification or assurance cycle in place**

Annual process

**Status in the current reporting year**

Complete

**Type of verification or assurance**

Reasonable assurance

**Attach the statement**

 APSEZ Assurance Statements CDP 2023.pdf

**Page/ section reference**

All

**Relevant standard**

ISAE 3410

**Proportion of reported emissions verified (%)**

100

## C10.1c

**(C10.1c) Provide further details of the verification/assurance undertaken for your Scope 3 emissions and attach the relevant statements.**

---

**Scope 3 category**

Scope 3: Purchased goods and services

Scope 3: Capital goods

Scope 3: Fuel and energy-related activities (not included in Scopes 1 or 2)

Scope 3: Upstream transportation and distribution



Scope 3: Waste generated in operations  
Scope 3: Business travel  
Scope 3: Employee commuting  
Scope 3: Investments  
Scope 3: Downstream transportation and distribution  
Scope 3: Downstream leased assets

**Verification or assurance cycle in place**

Annual process

**Status in the current reporting year**

Complete

**Type of verification or assurance**

Reasonable assurance

**Attach the statement**

 APSEZ Assurance Statements CDP 2023.pdf

**Page/section reference**

All

**Relevant standard**

ISAE 3410

**Proportion of reported emissions verified (%)**

100

## C10.2


**(C10.2) Do you verify any climate-related information reported in your CDP disclosure other than the emissions figures reported in C6.1, C6.3, and C6.5?**

Yes

### C10.2a

**(C10.2a) Which data points within your CDP disclosure have been verified, and which verification standards were used?**

Disclosure module verification relates to	Data verified	Verification standard	Please explain
C4. Targets and performance	Progress against emissions reduction target	ISAE 3410 ISAE 3000	The figures mentioned in responses of question C4.1, C4.2, C4.3 and C4.5 📎 <sub>1, 2</sub>
C8. Energy	Energy consumption	ISAE 3000	The figures mentioned in responses of question C.8.2a, C8.2c, C8.2d have been verified by ISAE3000. The verification has been completed as part of energy consumption.  📎 <sub>2</sub>
C6. Emissions data	Year on year change in emissions (Scope 1 and 2)	ISAE 3410	The figures mentioned in responses of C6.1 to C6.5a are verified by ISAE 3410. 📎 <sub>2</sub>
C6. Emissions data	Year on year change in emissions (Scope 3)	ISAE 3410	The figures mentioned in responses of C6.1 to C6.5a are verified by ISAE 3410. 📎 <sub>2</sub>
C9. Additional metrics	Waste data	ISAE 3000	The waste generation figure has been verified by ISAE3000 📎 <sub>1, 2</sub>

 <sup>1</sup>APSEZ Assurance Statements\_Integrated Report 2023 (002).pdf

 <sup>2</sup>APSEZ Assurance Statements CDP 2023.pdf

## C11. Carbon pricing

### C11.1

**(C11.1) Are any of your operations or activities regulated by a carbon pricing system (i.e. ETS, Cap & Trade or Carbon Tax)?**

No, but we anticipate being regulated in the next three years

### C11.1d

**(C11.1d) What is your strategy for complying with the systems you are regulated by or anticipate being regulated by?**

APSEZ's core strategy is centered around meeting compliance obligations as they arise. As part of this strategy, APSEZ has already taken steps to implement renewable energy solutions in its operations. By incorporating renewable energy sources, APSEZ aims to reduce its reliance on grid electricity and make its services more sustainable. Currently, APSEZ sources 7% of its total energy from renewable sources. However, the company has set an ambitious target to transition to around 100% renewable electricity usage by 2025 which will reduce the whole scope 2 emissions. To further support this renewable energy transition, APSEZ has planned for the mechanization and electrification of equipment across its sites. By utilizing renewable energy sources for powering the equipment, APSEZ will not only reduce its environmental impact but also promote cleaner and more efficient operations.

### C11.2

**(C11.2) Has your organization canceled any project-based carbon credits within the reporting year?**

No

### C11.3

**(C11.3) Does your organization use an internal price on carbon?**

Yes

## C11.3a

**(C11.3a) Provide details of how your organization uses an internal price on carbon.**

---

### **Type of internal carbon price**

Internal fee

### **How the price is determined**

Social cost of carbon

Price/cost of voluntary carbon offset credits

Cost of required measures to achieve emissions reduction targets

Benchmarking against peers

### **Objective(s) for implementing this internal carbon price**

Change internal behavior

Drive energy efficiency

Drive low-carbon investment

Identify and seize low-carbon opportunities

Navigate GHG regulations

Stakeholder expectations

Stress test investments

Reduce supply chain emissions

### **Scope(s) covered**

Scope 1

Scope 2

### **Pricing approach used – spatial variance**

Uniform

**Pricing approach used – temporal variance**

Static

**Indicate how you expect the price to change over time**

**Actual price(s) used – minimum (currency as specified in C0.4 per metric ton CO2e)**

1,642.4

**Actual price(s) used – maximum (currency as specified in C0.4 per metric ton CO2e)**

1,642.4

**Business decision-making processes this internal carbon price is applied to**

Procurement

Risk management

Opportunity management

Public policy engagement

**Mandatory enforcement of this internal carbon price within these business decision-making processes**

Yes, for some decision-making processes, please specify

To assist in allocating resources and capital within our organization and identify projects/initiatives with highest return on investment in terms of emission reduction. It support long-term strategic planning by integrating environmental aspects.

**Explain how this internal carbon price has contributed to the implementation of your organization’s climate commitments and/or climate transition plan**

The introduction of an internal carbon price within our organization has provided a strong economic signal to incentivize and guide our decision-making processes. By assigning a monetary value to carbon emissions, we are able to better understand the financial implications of our carbon footprint and incorporate them into our business strategies. This mechanism acts as a key driver for achieving our climate transition objectives by integrating carbon costs into investment appraisal, project evaluation, and financial planning processes.

One of the major contributions of our internal carbon price has been the identification and implementation of emission reduction opportunities. By assigning a price to carbon, we have created a financial incentive for internal stakeholders to find innovative ways to reduce our emissions. This has led to the implementation of a wide range of emission reduction projects, such as energy efficiency measures, renewable energy installations, and process optimizations. These initiatives have not only helped us reduce our carbon footprint but have also resulted in significant cost savings and operational efficiencies.

Furthermore, the internal carbon price has facilitated the integration of climate considerations into our capital allocation decisions. With the carbon price acting as a cost factor, investments that have higher carbon intensity are subject to increased scrutiny. This has encouraged our organization to prioritize low-carbon and climate-resilient projects, leading to the deployment of capital towards sustainable and climate-friendly initiatives. By internalizing the cost of carbon, we are able to make more informed decisions that align with our climate commitments and promote a transition to a low-carbon future.

Additionally, the internal carbon price has fostered a culture of accountability and awareness within our organization. By attributing a financial value to carbon emissions, we have heightened the visibility of our environmental impact and instilled a sense of responsibility across our workforce. Employees are encouraged to identify and implement emission reduction measures in their respective areas of work, driving a bottom-up approach to climate action. The internal carbon price serves as a metric to track progress, enabling us to monitor and report on the effectiveness of our climate initiatives.

## C12. Engagement

### C12.1

#### **(C12.1) Do you engage with your value chain on climate-related issues?**

Yes, our suppliers

Yes, our customers/clients

Yes, other partners in the value chain

## C12.1a

### (C12.1a) Provide details of your climate-related supplier engagement strategy.

---

#### Type of engagement

Engagement & incentivization (changing supplier behavior)

#### Details of engagement

Run an engagement campaign to educate suppliers about climate change

Other, please specify

Collect other climate related information at least annually from Suppliers.

#### % of suppliers by number

5.1

#### % total procurement spend (direct and indirect)

54

#### % of supplier-related Scope 3 emissions as reported in C6.5

25

#### Rationale for the coverage of your engagement

Our strategic risk management and compliance approach revolves around six-step responsible sourcing process, which plays a pivotal role in ensuring long-term relationships with suppliers, enhancing supply chain stability. We place a strong emphasis on strengthening our value chain by selecting suppliers who are willing to engage with us across a range of sustainability aspects while also adhering to our quality and price requirements.

We manage all our suppliers through an online portal (contractor safety management & SAP Ariba) and seek the mandatory information on the environmental management systems, quality controls, safety performance, labor laws, business relevance, social elements, company revenue details to assess and check the level of suppliers to be aligned with our supplier code of conduct driven by sustainable procurement policy.

Assessment of the all the suppliers who seek to provide the services, products & management service done against the set parameters on the

scale of 0 to 2. Each supplier is graded based upon their revenue details.

In FY 2022-23, we have identified 270 significant suppliers out of 5343 suppliers based. Our Company identifies the Significant supplier's basis upon the High-volume suppliers or similar, Significant component suppliers or similar, non-substitutable suppliers or similar, ESG risk including climate related risk & past performance in ESG area, country-specific risk, sector-specific risk, commodity-specific risk, social and governance impacts related to a country's political, social, economic, environmental, or a regulatory situation. We use sustainability risk matrix to assess and evaluate the sustainability risks associated with its suppliers. Suppliers who cannot achieve 60% in the matrix are identified as significant suppliers to our company. Therefore, we have engaged with 100% of our significant suppliers who could not achieve 60% on our risk matrix.

During FY 2022-23, we have engaged with our significant suppliers in the following:

- a. Conducted physical sessions on a range of topics including innovation, productivity, sustainability, and APSEZ's supplier code of conduct
- b. Conducted an annual due diligence, which includes site visits and on-site assessments to ensure thorough evaluation and assessment of various aspects

### **Impact of engagement, including measures of success**

In FY 2022-23, we assessed our suppliers on pre-defined impact evaluation criteria, and it was observed that one of our suppliers failed to meet our ESG related requirements including climate change. As a testament to the effectiveness of our supplier engagement efforts and compliance requirements, we have blocklisted the vendor to eliminate any supplier-related risks from the ecosystem. To deepen supplier engagement further, we are in the process of setting up new systems. We reinforce engagement with specific vendors through various platforms, such as annual vendor meets and supplier vendor audits, to ensure business continuity. At APSEZ, we value our partnerships with suppliers and partners and believe that collaboration can enhance efficiency and deliver the best value to our customers.

We conduct regular supplier audits to ensure that our supply chain operates ethically and complies with our Supplier Code of Conduct. This approach minimizes risk for APSEZ, our suppliers, and customers, which ultimately contributes to our competitive edge. In addition to conducting audits, we have also established a framework for strategic supplier relationships. This framework helps us safeguard our supply chain and identify opportunities for collaborative value creation. We understand that our vision of becoming the world's largest port utility by 2030 hinges on the strength of our partnerships, and we remain committed to nurturing and developing these relationships for our mutual benefit.

### **Comment**



## C12.1b

**(C12.1b) Give details of your climate-related engagement strategy with your customers.**

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### **Type of engagement & Details of engagement**

Collaboration & innovation

Run a campaign to encourage innovation to reduce climate change impacts

### **% of customers by number**

100

### **% of customer - related Scope 3 emissions as reported in C6.5**

12

### **Please explain the rationale for selecting this group of customers and scope of engagement**

Our business recognizes the importance of customers and their influence on our growth. Understanding their demands and preferences regarding climate change is crucial. We actively collaborate with our 100% of our customers to identify opportunities for reducing emissions through joint efforts. To foster customer engagement, we regularly connect with them through various platforms.

One of the key avenues for customer engagement is Engagement Forums. These forums provide a space for customers to meet, share ideas, and discuss innovations in cargo transfer services while also addressing climate change concerns. Additionally, we organize Customer Meets, which serve as platforms to understand and discuss climate change aspects, as well as to engage customers in the dialogue.

As part of our long-term strategy, APSEZ aims to involve all customers in climate change engagement activities over the next 2-4 years. Currently, we have initiated this engagement process during customer meets where customers are actively participating. These customers primarily represent those involved in the upstream and downstream transportation of material.

### **Impact of engagement, including measures of success**

To measure our performance, we use customer feedback as a barometer and aim to achieve a customer satisfaction score of 4.75/5 by 2025. In our most recent efforts, we conducted a Customer Satisfaction Survey for our customers in the container cargo, liquid cargo, dry cargo, SEZ, dredging, and logistics business verticals. We achieved 4.3/5 in FY 2022-23. This survey aimed to capture compliance on ESG parameters, alignment with our sustainability goals, gauge customer credentials on various ESG parameters, measure satisfaction levels, and identify areas for improvement.

Engagement with customers in the upstream and downstream transport sectors had several positive impacts on reducing GHG emissions and promoting sustainable practices:

1. **Shift to Environmentally Friendly Transportation:** By engaging with customers, specifically in the conversion of cargo transfer from road transportation to rail transportation between Mundra and Morbi locations, APSEZ contributed to a significant reduction in GHG emissions. Rail transportation is more fuel-efficient and has a lower carbon footprint compared to road transportation, thereby promoting a more environmentally friendly mode of transport.
2. **Increased Efficiency and Consolidation:** Collaboration with customers and the promotion of rail transportation allow for larger cargo volumes to be transported in a single trip, reducing the number of vehicles on the road. This consolidation of goods leads to increased efficiency and lowers emissions per unit of transported goods. APSEZ's efforts in enabling double-stacker container transportation to contribute to optimizing resources and reducing overall carbon emissions.
3. **Long-term Partnerships and Collaboration:** APSEZ's engagement with customers in the upstream and downstream transport sectors involves building long-term partnerships and fostering collaboration. By working closely with customers, APSEZ encourages the adoption of sustainable transportation solutions and jointly explores opportunities for improving efficiency and reducing emissions. This collaborative approach facilitates the exchange of ideas, promotes innovation, and further drives down GHG emissions in the transportation process.

## C12.1d

### **(C12.1d) Give details of your climate-related engagement strategy with other partners in the value chain.**

We actively engage with stakeholders through various mechanisms, such as direct dialogues, surveys, participation in professional and industry forums, and information sharing. The frequency and format of these engagements are carefully designed to ensure regular communication with stakeholders on key issues. In addition, we conduct specific engagements with stakeholders during the development of our sustainability reports, as their feedback is crucial in the preparation of these reports.

**Employee:** The quality of our people drives our growth. We understand the value of responding to feedback from our employees to maintaining a fulfilling, rewarding and work environment. To understand the views of our people, we rolled out periodic Gallup assessment surveys. APSEZ analysed the surveys filled by employees on 12 elements to create a structure for interactions with employees – casual conversations, meeting agendas,

performance evaluations and team goal setting. The results were analysed on a scale of Highly engaged, Engaged, Disengaged and Highly disengaged. In FY2022-23, 76% of the workforce participated in the annual engagement survey.

Furthermore, all the employees of APSEZ were reached out with the Self-Assessment Questionnaires survey to identify human rights risks. About 76% of them participated in the survey.

**Community:** Communities around our operations share resources and have their livelihoods dependent on natural resources. It is essential that we maintain healthy relationships with communities. Need assessment and impact assessment surveys are carried out to identify and prioritise the interventions required by the communities. Impact assessments of various community development projects are performed by third parties to measure positive impacts of our various CSR interventions undertaken. Alongside, some human rights studies/assessments are carried out.

**Industry Associations:** We actively participate in sector-specific public consultations and collaborate with regional and national opinion-forming processes to influence decisions made by political, economic, and social organizations. Our goal is to play a constructive role in shaping a regulatory framework for our company, with the support of our Board members, local governments, industry associations, and customers. We closely monitor relevant global and national topics, enabling us to timely identify government schemes, policies, and incentives that may have either a positive or negative impact. Various subjects hold particular significance for APSEZ, including environment, climate change, port development for trade enhancement, resource efficiency, marine pollution, biodiversity, and more. We actively participate in industry associations, through which we engage in advocacy and leadership initiatives.

## C12.2

### **(C12.2) Do your suppliers have to meet climate-related requirements as part of your organization's purchasing process?**

Yes, suppliers have to meet climate-related requirements, but they are not included in our supplier contracts

## C12.2a

### **(C12.2a) Provide details of the climate-related requirements that suppliers have to meet as part of your organization's purchasing process and the compliance mechanisms in place.**

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#### **Climate-related requirement**

Complying with regulatory requirements



**Description of this climate related requirement**

The supplier ESG performance assessment criteria were integrated into the Supplier Performance Assessment Scorecard. The sustainability risk matrix is a tool that APSEZ uses to assess and evaluate the sustainability risks associated with its suppliers. The matrix takes into consideration various factors such as the grades given to suppliers and their ESG (Environmental, Social, and Governance) parameter evaluation scores. The aim is to categorize suppliers into different sustainability risk bands based on the level of risk they pose to the company's sustainability goals.

**% suppliers by procurement spend that have to comply with this climate-related requirement**

100

**% suppliers by procurement spend in compliance with this climate-related requirement**

100

**Mechanisms for monitoring compliance with this climate-related requirement**

- Certification
- Supplier self-assessment
- Grievance mechanism/Whistleblowing hotline
- Supplier scorecard or rating

**Response to supplier non-compliance with this climate-related requirement**

Other, please specify

Based on the severity of the non-compliance, there are a range of actions which are pursued. While the initial actions are retained and engage them to ensure compliance, the extreme cases could be excluded the supplier.

**C12.3**

**(C12.3) Does your organization engage in activities that could either directly or indirectly influence policy, law, or regulation that may impact the climate?**

Row 1

**External engagement activities that could directly or indirectly influence policy, law, or regulation that may impact the climate**

Yes, we engage directly with policy makers


**Does your organization have a public commitment or position statement to conduct your engagement activities in line with the goals of the Paris Agreement?**

Yes

**Attach commitment or position statement(s)**

 APSEZ UNGC Commitment letter.pdf

 Endorsing Companies – CEO Water Mandate APSEZ.pdf

 IMO Request for Discussion on Climate Change.pdf

**Describe the process(es) your organization has in place to ensure that your external engagement activities are consistent with your climate commitments and/or climate transition plan**

Advocacy and leadership are fundamental to APSEZ's democratic decision-making and policy development process. We actively participate in sector-specific public consultations and collaborate as partners in regional and national opinion-forming processes, influencing decisions made by political, economic, and social organizations. Our objective is to play a constructive role in shaping a regulatory framework for the organization, receiving reliable support from our Board members in collaboration with local governments, industry associations, and customers to develop policy briefs.

We closely monitor relevant global and national topics, enabling us to identify government schemes, policies, and incentives in a timely manner, which may have either a positive or negative impact. APSEZ's areas of focus include the environment, climate change, port development for trade enhancement, resource efficiency, marine pollution, biodiversity, and more.

Furthermore, our energy and emissions policy aligns with national and international guidelines, as well as our company's commitments. It is effectively communicated to all employees through various channels such as email, notice boards, and our company's website. We conduct training and awareness sessions to enhance understanding, and we have a sustainability framework and charter that provide guidance in these matters. All external engagements related to climate issues are coordinated through the Sustainability Leadership Committee, along with designated officers responsible for these matters.

While the Board holds corporate-level responsibility for climate commitments, the SLC is responsible for implementing the policy in coordination with the site-level Sustainability Steering Committee. Site teams are responsible for developing site-specific strategies, recording, reviewing,

and implementing initiatives. They also support project budgeting, initiate activities, and innovations, and provide input for related schemes, projects, and planning. This system ensures that all public policy engagements related to climate issues align with the company's overall strategy.

## C12.3a

**(C12.3a) On what policy, law, or regulation that may impact the climate has your organization been engaging directly with policy makers in the reporting year?**

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**Specify the policy, law, or regulation on which your organization is engaging with policy makers**

Energy Conservation (Amendment) Bill, 2022  
EIA Notification, 2006 and subsequent amendments issued during FY 2022-23  
Draft CRZ Notifications 2011 and subsequent amendments issued during FY2022-23  
National green hydrogen mission - Jan 2023

**Category of policy, law, or regulation that may impact the climate**

Climate change mitigation

**Focus area of policy, law, or regulation that may impact the climate**

Climate transition plans

**Policy, law, or regulation geographic coverage**

National

**Country/area/region the policy, law, or regulation applies to**

India

**Your organization's position on the policy, law, or regulation**

Neutral

### **Description of engagement with policy makers**

At APSEZ, we consider systematic engagement with policymakers a vital component of our commitment to sustainable development and low carbon transition business. By actively participating in policy discussions and providing objections, suggestions, and valuable input, we strive to influence environmental regulations positively and contribute to the formulation of robust policies that balance economic growth with environmental stewardship. From April 2022 to March 2023, APSEZ engaged with policymakers on the recent amendments to the CRZ notifications, Environmental impact assessment (EIA) Notification amendments, energy conservation bill, and National green hydrogen mission. We have diligently analyzed the amendments and notifications on their potential implications on ports, logistic sites, coastal and marine ecosystems, livelihoods, and infrastructure development. We have proactively provided constructive feedback, suggestions, and objections to the Joint Secretary of the Ministry of Environment, Forest, and Climate Change (MoEFCC) and other professionals regarding the proposed content as per the standard practices of submitting suggestions or objections. Our engagement aims to ensure that the regulations strike a balance between environmental protection and sustainable coastal development. We also encourage to ensure that the legislation promotes energy efficiency, encourages renewable energy adoption, and aligns with our commitment to sustainable operations and carbon footprint reduction.

We are also a signatory member of UN Global Compact since 2020.

### **Details of exceptions (if applicable) and your organization's proposed alternative approach to the policy, law or regulation**

#### **Have you evaluated whether your organization's engagement on this policy, law, or regulation is aligned with the goals of the Paris Agreement?**

Yes, we have evaluated, and it is aligned

#### **Please explain whether this policy, law or regulation is central to the achievement of your climate transition plan and, if so, how?**

Not Applicable to APSEZ.

## **C12.4**

**(C12.4) Have you published information about your organization's response to climate change and GHG emissions performance for this reporting year in places other than in your CDP response? If so, please attach the publication(s).**

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**Publication**

In mainstream reports

**Status**

Complete

**Attach the document**

 APSEZ\_Integrated Report\_FY23.pdf

**Page/Section reference**

142-175, 239-244, 334, 405

**Content elements**

Governance

Strategy

Risks & opportunities

Emissions figures

Emission targets

Other metrics

Other, please specify

Water, Waste, Biodiversity and Noise

**Comment**

We are committed to being a in managing risks and operations while contributing to the social welfare of communities and reconciling business growth with sustainability. Our ESG strategy is aligned with various national and international standards, frameworks, guidelines and commitments such as TCFD, UNGC principles, NGRBC, GRI standards, IIRC, BRSR, SDGs and IBBI to achieve our objectives. Our ESG principles are implemented throughout the project's lifecycle,from its conception to the end-of life by material ESG topics across all business



stages. We prioritise setting and implementing targets backed by an appropriate policy framework approved by the Board of Directors and relevant committees.

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**Publication**

In mainstream reports, incorporating the TCFD recommendations

**Status**

Complete

**Attach the document**

 APSEZ TCFD Report - 2023.pdf

**Page/Section reference**

All

**Content elements**

Governance  
Strategy  
Risks & opportunities  
Emissions figures  
Emission targets  
Other metrics

**Comment**

We have prepared our FY 2023 TCFD report.



## C12.5

**(C12.5) Indicate the collaborative frameworks, initiatives and/or commitments related to environmental issues for which you are a signatory/member.**

	Environmental collaborative framework, initiative and/or commitment	Describe your organization’s role within each framework, initiative and/or commitment
Row 1	Task Force on Climate-related Financial Disclosures (TCFD) UN Global Compact	UN Global Compact (UNGC): APSEZ is signatory to the UNGC and discloses its performance against the 10 UNGC principles.  TCFD:– APSEZ supports TCFD recommendations, and our reporting is aligned to TCFD recommendation.

## C15. Biodiversity

### C15.1

**(C15.1) Is there board-level oversight and/or executive management-level responsibility for biodiversity-related issues within your organization?**

	Board-level oversight and/or executive management-level responsibility for biodiversity-related issues	Description of oversight and objectives relating to biodiversity
Row 1	Yes, both board-level oversight and executive management-level responsibility	APSEZ has a well-structured corporate governance framework for driving biodiversity and sustainability initiatives. Here's a breakdown of the roles and responsibilities at each level: Board Level Corporate Responsibility Committee: This committee oversees the company's biodiversity agenda by establishing targets and monitoring performance. Additionally, it reviews the company's progress

		<p>on biodiversity conservation projects. The committee convenes at least quarterly to discuss and assess these matters.</p> <p>Sustainability Leadership Committee (SLC): Chaired by the CEO, this cross-functional committee is responsible for ensuring the integration of sustainability into the company's strategy. It strives to foster sustainability as a core element of the company's operations and decision-making processes. Works to align sustainability goals and initiatives with the overall corporate strategy.</p> <p>Sustainability Steering Committee (SSC): Operating at the site level, the SSC comprises heads of various functions within the company. It supports the implementation of the company's sustainability strategy within their respective functions and collaborates to ensure sustainability practices and goals are incorporated into day-to-day operations. Their efforts are focused on achieving sustainability targets at the site level.</p>
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## C15.2

**(C15.2) Has your organization made a public commitment and/or endorsed any initiatives related to biodiversity?**

	Indicate whether your organization made a public commitment or endorsed any initiatives related to biodiversity	Biodiversity-related public commitments	Initiatives endorsed
Row 1	Yes, we have made public commitments and publicly endorsed initiatives related to biodiversity	Commitment to Net Positive Gain Commitment to No Net Loss Other, please specify Commitment to No Net Deforestation by 2050	SDG Other, please specify The India Business & Biodiversity Initiative (IBBI) & the International Union for Conservation of Nature (IUCN)

## C15.3

**(C15.3) Does your organization assess the impacts and dependencies of its value chain on biodiversity?**

**Impacts on biodiversity**

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**Indicate whether your organization undertakes this type of assessment**

Yes

**Value chain stage(s) covered**

Direct operations

Upstream

**Tools and methods to assess impacts and/or dependencies on biodiversity**

IBAT – Integrated Biodiversity Assessment Tool

Natural Capital Protocol

**Please explain how the tools and methods are implemented and provide an indication of the associated outcome(s)**

IBAT is a tool that helps identify and manage biodiversity and ecosystem risks and opportunities associated with development projects. It provides access to data on biodiversity and ecosystem services, including protected areas, species distributions, and ecosystem maps. IBAT integrates this data into decision-making processes, allowing us to assess potential impacts on biodiversity and identify measures to mitigate those impacts. On the other hand, the Natural Capital Protocols provide guidance on how to measure, value, and integrate natural capital into decision-making processes. This approach allows APSEZ to consider the economic, social, and environmental costs and benefits associated with different development options, promoting more sustainable practices.

The implementation of IBAT and Natural Capital Protocols involves several steps. Initially, data on biodiversity, ecosystems, and natural capital is collected and analyzed. This data can be obtained from various sources, such as satellite imagery, field surveys, and scientific literature. Once the data is gathered, it is integrated into the decision-making process using the respective tools.

By incorporating these tools into project planning and decision-making processes, development projects can identify potential risks and opportunities related to biodiversity and ecosystem services. This leads to more informed and sustainable decision-making, enabling the implementation of measures to avoid, minimize, or offset negative impacts on biodiversity.

**Dependencies on biodiversity**

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**Indicate whether your organization undertakes this type of assessment**

## C15.4

**(C15.4) Does your organization have activities located in or near to biodiversity- sensitive areas in the reporting year?**

No

## C15.5

**(C15.5) What actions has your organization taken in the reporting year to progress your biodiversity-related commitments?**

	Have you taken any actions in the reporting period to progress your biodiversity-related commitments?	Type of action taken to progress biodiversity- related commitments
Row 1	Yes, we are taking actions to progress our biodiversity-related commitments	Land/water protection Land/water management Species management Education & awareness Law & policy Livelihood, economic & other incentives

## C15.6

**(C15.6) Does your organization use biodiversity indicators to monitor performance across its activities?**

	Does your organization use indicators to monitor biodiversity performance?	Indicators used to monitor biodiversity performance
Row 1	Yes, we use indicators	Response indicators Other, please specify Mangrove and Terrestrial Plantation coverage (Ha), Biodiversity Management Plan for sites.

## C15.7

**(C15.7) Have you published information about your organization’s response to biodiversity-related issues for this reporting year in places other than in your CDP response? If so, please attach the publication(s).**

Report type	Content elements	Attach the document and indicate where in the document the relevant biodiversity information is located
In mainstream financial reports	Content of biodiversity-related policies or commitments Governance Impacts on biodiversity Details on biodiversity indicators Risks and opportunities Biodiversity strategy Other, please specify Biodiversity Conservation, Enhancing awareness on biodiversity within the organization	

## C16. Signoff

### C-FI

**(C-FI) Use this field to provide any additional information or context that you feel is relevant to your organization’s response. Please note that this field is optional and is not scored.**

### C16.1

**(C16.1) Provide details for the person that has signed off (approved) your CDP climate change response.**



	Job title	Corresponding job category
Row 1	CEO	Chief Executive Officer (CEO)

## Submit your response

**In which language are you submitting your response?**

English

**Please confirm how your response should be handled by CDP**

	I understand that my response will be shared with all requesting stakeholders	Response permission
Please select your submission options		Public

**Please confirm below**