



सत्यमेव जयते

File No: J-12011/52/2023-IA.I (R)  
Government of India  
Ministry of Environment, Forest and Climate Change  
IA Division  
\*\*\*



Date 11/02/2025



To,

Dr. Rahul Singh  
M/s ADANI GREEN ENERGY LIMITED  
Adani Corporate House, Shantigram Near Vaishno Devi Circle, S G Highway, Khodiyar,  
AHMADABAD, GUJARAT, , 382421  
agel.psp@adani.com

**Subject:** Tarali Open Loop Pumped Storage Project (1500 MW) in an area of 150.74 Ha located at Village Nivade, Tondoshi, Kalambe and Jalu, Sub District Patan, District Satara, Maharashtra by M/s Adani Green Energy Limited - Environmental Clearance (EC) - reg.

Sir/Madam,

This is in reference to your online application No. IA/MH/RIV/487971/2024, submitted on 10/12/2024 to this Ministry for the grant of Environmental Clearance (EC) under the provisions of the EIA Notification, 2006, and its subsequent amendments. The application pertains to the Tarali Open Loop Pumped Storage Project (1500 MW) in an area of 150.74 Ha located at Village Nivade, Tondoshi, Kalambe and Jalu, Sub District Patan, District Satara, Maharashtra by M/s Adani Green Energy Limited.

2. The particulars of the proposal are as below :

(i) EC Identification No.	EC24A0000MH5179277N
(ii) File No.	J-12011/52/2023-IA.I (R)
(iii) Clearance Type	Fresh EC
(iv) Category	A
(v) Project/Activity Included Schedule No.	1(c) River Valley/Irrigation projects
(vi) Sector	River Valley and Hydroelectric Projects
(vii) Name of Project	Tarali Pumping Storage Project (1500 MW)
(viii) Name of Company/Organization	ADANI GREEN ENERGY LIMITED
(ix) Location of Project (District, State)	SATARA, MAHARASHTRA
(x) Issuing Authority	MoEF&CC
(xi) Applicability of General Conditions as per EIA Notification, 2006	No

3. In view of the particulars provided in Para 1 above, the project proposal, including Form-1 (Parts A, B, and C), along with the EIA and EMP Reports, was submitted to the Ministry of Environment, Forest and Climate Change (MoEF&CC) for appraisal by the Expert Appraisal Committee (EAC) under the provisions of the EIA Notification 2006 and its subsequent amendments.

4. The Ministry of Environment, Forest and Climate Change has considered the application. It is noted that the proposal is for grant of Environmental Clearance to the project for Tarali Open Loop Pumped Storage Project (1500 MW) in an area of 150.74 Ha located at Village Nivade, Tondoshi, Kalambe and Jalu, Sub District Patan, District Satara, Maharashtra by M/s Adani Green Energy Limited.

5. The above-mentioned proposal was considered by the Expert Appraisal Committee (EAC) in the 21<sup>st</sup> meeting held on 31.12.2024. The minutes of the meeting, along with all the project documents, are available on the PARIVESH portal. These documents can be accessed from the PARIVESH portal by scanning the QR Code provided above.

6. The EAC after examining the information submitted and detailed deliberations **recommended** the proposal for grant of prior Environmental Clearance by the Ministry to Tarali Open Loop Pumped Storage Project (1500 MW) in an area of 150.74 Ha located at Village Nivade, Tondoshi, Kalambe and Jalu, Sub District Patan, District Satara, Maharashtra by M/s Adani Green Energy Limited, under the provisions of EIA Notification, 2006 and as amended with subject to compliance of applicable Standard EC conditions with certain specific environmental safeguard conditions (Annexure I).

7. The details of the project as per the information submitted by the Project Proponent are enclosed as Annexure (II).

8. The Ministry has examined the proposal in accordance with the provisions of the EIA Notification, 2006, and its subsequent amendments. Based on the recommendations of the Expert Appraisal Committee, Environmental Clearance is hereby granted for the Tarali Open Loop Pumped Storage Project (1500 MW) covering an area of 150.74 hectares, located in the villages of Nivade, Tondoshi, Kalambe, and Jalu, Sub-District Patan, District Satara, Maharashtra, by M/s Adani Green Energy Limited. This approval is subject to adherence to the specific conditions prescribed for this project, in addition to the standard conditions (Annexure I).

9. The Environmental Clearance to the aforementioned project is under provisions of EIA Notification, 2006, as amended. It does not tantamount to approvals/consent/permissions etc. required to be obtained under any other Act/Rule/regulation. The Project Proponent is under obligation to obtain approvals /clearances under any other Acts/ Regulations or Statutes, as applicable, to the project.

10. The Ministry reserves the right to stipulate additional conditions, if found necessary at subsequent stages and the project proponent shall implement all the said conditions in a time bound manner. The Ministry may revoke or suspend the environmental clearance, if implementation of any of the above conditions is not found satisfactory.

11. The above conditions will be enforced, inter-alia under the provisions of the Water (Prevention & Control of Pollution) Act, 1974, the Air (Prevention & Control of Pollution) Act, 1981, the Environment (Protection) Act, 1986, the Hazardous Waste (Management, Handling and Transboundary Movement) Rules, 2016 and the Public Liability Insurance Act, 1991 read with subsequent amendments therein.

12. The Project Proponent is obligated to implement all commitments made in the Environmental Management Plan (EMP), which forms an integral part of this Environmental Clearance (EC).

13. The validity of the Environmental Clearance (EC) extends up to 13 years to the start of production operations or the commissioning of the project. The EC's validity becomes perpetual if production operations commence on or before the specified date. Should the Project Proponent fail to initiate production operations within the EC validity period, an application for an extension must be submitted to the regulatory authority, in accordance with Para 9.0 of the EIA Notification, 2006, as amended.

14. General Instructions:

(a) The project proponent shall prominently advertise it at least in two local newspapers of the District or State, of which one shall be in the vernacular language within seven days indicating that the project has been accorded environment clearance and the details of MoEF&CC/SEIAA website where it is displayed.

(b) The copies of the environmental clearance shall be submitted by the project proponents to the Heads of local bodies, Panchayats and Municipal Bodies in addition to the relevant offices of the Government who in turn has to display the same for 30 days from the date of receipt.

(c) The project proponent shall have a well laid down environmental policy duly approved by the Board of Directors (in case of Company) or competent authority, duly prescribing standard operating procedures to have proper checks and balances and to bring into focus any infringements/deviation/violation of the environmental / forest / wildlife norms / conditions.

(d) Action plan for implementing EMP and environmental conditions along with responsibility matrix of the project proponent (during construction phase) and authorized entity mandated with compliance of conditions (during perational phase) shall be prepared. The year wise funds earmarked for environmental protection measures shall be kept in separate account and not to be diverted for any other purpose. Six monthly progress of implementation of action plan shall be reported to the Ministry/Regional Office along with the Six-Monthly Compliance Report.

(e) Concealing factual data or submission of false/fabricated data may result in revocation of this environmental clearance and attract action under the provisions of Environment (Protection) Act, 1986.

(f) The Regional Office of this Ministry shall monitor compliance of the stipulated conditions. The project authorities should extend full cooperation to the officer (s) of the Regional Office by furnishing the requisite data / information/monitoring reports.

(g) Any appeal against this EC shall lie with the National Green Tribunal, if preferred, within a period of 30 days as prescribed under Section 16 of the National Green Tribunal Act, 2010.

(h) PP needs to comply the OM dated 24.07.2024 of MoEFCC, where it is stated that the plantation of saplings shall be carried out in the earmarked 33% greenbelt area as part of the tree plantation campaign " EK Ped Ma ke Naam" (एक पेड़ माँ के नाम) (and the details of the same shall be uploaded in the MeriLife portal (<https://merilife.nic.in>)).

15. This issues with the approval of the Competent Authority.

#### **Copy To**

1. The Secretary, Ministry of Power, Shram Shakti Bhawan, Rafi Marg, New Delhi -110 001.
2. The Secretary, Ministry of Water Resources, RD & GR, Shram Shakti Bhawan, Rafi Marg, New Delhi - 110 001.
3. The Regional Officer, Ministry of Environment, Forest and Climate Change, Integrated Regional Office, Ground Floor, East Wing, New Secretariat Building Civil Lines, Nagpur-440001
4. The Chairman, Central Pollution Control Board, Parivesh Bhavan, CBD-cum-Office complex, East Arjun Nagar, New Delhi-1100032.
5. The Chief Wildlife Warden, Govt. of Maharashtra, Van Bhawan, Police Gym Khana, Ramgiri Road Nagpur-440001
6. The Chairman, Maharashtra Pollution Control Board, Kalpatru Point, Sion Circle, Sion (East), Mumbai-400 022, Maharashtra.
7. Monitoring Division, Ministry of Environment, Forest and Climate Change, Indira Paryavaran Bhawan, Jor Bagh Road, New Delhi
8. Guard File/Record File/Monitoring File/Website of MoEF&CC.

## Specific EC Conditions for (River Valley/Irrigation Projects)

## 1. Miscellaneous:

S. No	EC Conditions
1.1	After 5 years of the commissioning of the project, a study shall be undertaken regarding impact of the project on the environment. The study shall be undertaken by an independent agency.
1.2	The conditions mentioned in the Western Ghats notification (draft notification no. S.O.3060(E) dated 31.07.2024) for development of hydro-power projects issued by the MOEF&CC shall be complied with.
1.3	Bio-Gas plant shall be installed in the Project affected area for Utilizing Cattle waste (Cow Dung) into renewable source of fuel.
1.4	PP should establish in house (at project site) environment laboratory for measurement of environment parameter with respect to air quality and water (surface and ground). A dedicated team to oversee environment management shall be setup which should comprise of Environment Engineers, Laboratory chemist and staff for monitoring of air, water quality parameters on routine basis.
1.5	PP shall procure construction material only from those Organizations having all valid legal/statutory clearances/permissions or necessary permission to be obtained for quarrying construction materials for the project as per the EIA Notification, 2006 and as amended thereof.
1.6	An institutional mechanism to be developed to ensure the preference of jobs to PAFs and also a policy for preferential treatment for award of sundry works to the PAFs and their dependents.

## 2. Socio-economic

S. No	EC Conditions
2.1	Land acquired for the project shall be suitably compensated in accordance with the prevailing guidelines of the state government and provisions under Right to Fair Compensation and Transparency in Land Acquisition, Rehabilitation and Resettlement Act, 2013.
2.2	RO plant shall be installed in the nearby 5 villages and the maintenance shall be done by the project Authorities.
2.3	Solar panel be provided to the families living in rural areas within 10 km radius of project.
2.4	School up to 12 <sup>th</sup> Standard shall be established and managed to provide free quality education for children from project affected villages/Tribal villages.



S. No	EC Conditions
2.5	The compliance of above conditions shall be monitored by IRO, MoEF&CC and regularly site visit once in year. The compliance report of IRO shall be regularly submitted to MoEF&CC.
2.6	50 bed multi-speciality hospital shall be established to cater the need of tribal population/locals. The tribal population within 10 km radius of the project shall be given free of cost medical facility
2.7	Skill development Centre shall be established within 10 km radius of the project and regular training programmes for development and promotion of traditional art/products of tribal/local population.
2.8	The area is ecologically fragile therefore Project Proponent shall ensure that safety measures as mentioned in the EMP shall be fully implemented.

### 3. Disaster Management:

S. No	EC Conditions
3.1	Disposal of the excavated muck and its filling on the low-lying area with proper measures for the stabilization and greenery to minimize the impacts of the generated construction muck shall be taken up pari passu with construction work.
3.2	Stabilization of muck disposal sites using biological and engineering measures shall be taken up immediately to ensure that muck does not roll down the slopes and does not pollute the natural streams and water bodies in surrounding area. The plantation on muck disposal site with local species for restoration of ecology and environment of the project site area.
3.3	Necessary control measures such as water sprinkling arrangements, and construction of paved roads leading to muck disposal sites etc. shall be taken up on priority to arrest fugitive dust at all the construction sites.
3.4	Solid waste generated, especially plastic waste, etc. should not be disposed of as landfill material. It should be treated with scientific approach and recycled. Use of single-use plastics may be discouraged.

### 4. Environmental Management And Biodiversity Conservation:

S. No	EC Conditions
4.1	The water of rainfall yield of self-catchment of the reservoir shall be released to downstream through body of dam/ barrage/ embankment etc.
4.2	The Environmental Management Plan (EMP) shall be strictly adhered to as submitted in the EIA/EMP reports. The budgetary provisions for implementation of EMP, shall be fully utilized and not to be diverted to any other purpose. In case of revision of the project cost or due to price level change, the cost of EMP shall also be updated proportionately.
4.3	The contract clause limiting the No. of vehicles used during excavation and transportation shall followed scrupulously and the same shall informed to the ministry.

S. No	EC Conditions
4.4	Ambient Air Quality Monitoring Stations for real time data to be installed at project site before commencement of the construction, shall be displayed at project site and its report to be submitted to IRO, MoEF&CC.
4.5	No vehicle purchase shall be allowed from funds earmarked for implementation of Wildlife Conservation plan. Measures for minimizing the human-animal conflict specially for black bear and leopard be suitably incorporated in the wildlife conservation plan in consultation with State Forest Department.
4.6	10000 plants shall be planted around the muck disposal area and the survival of plants shall be submitted with the 6 monthly compliance report.
4.7	Plantation of saplings shall be carried out as a part of the tree plantation campaign "Ek Ped Ma Ke Naam" and the details of the same shall be uploaded in the MeriLiFE Portal ( <a href="https://merilife.nic.in">https://merilife.nic.in</a> ).
4.8	Watershed development plan prepared in consultation with ICAR/expert Govt. institute be implemented within 10 km radius of the project. Implementation status be submitted in the 6 monthly compliance report to the concerned regional office of the Ministry.

**Standard EC Conditions for (River Valley/Irrigation projects)**

**1. Statutory Compliance**

S. No	EC Conditions
1.1	The project proponent shall obtain forest clearance under the provisions of Forest (Conservation) Act, 1986, in case of the diversion of forest land for non-forest purpose involved in the project.
1.2	The project proponent shall obtain clearance from the National Board for Wildlife, if applicable.
1.3	The project proponent shall prepare a Site-Specific Conservation Plan & Wildlife Management Plan and approved by the Chief Wildlife Warden. The recommendations of the approved Site-Specific Conservation Plan / Wildlife Management Plan shall be implemented in consultation with the State Forest Department. The implementation report shall be furnished along with the six-monthly compliance report. (in case of the presence of Schedule-I species in the study area).
1.4	The project proponent shall obtain Consent to Establish / Operate under the provisions of Air (Prevention & Control of Pollution) Act, 1981 and the Water (Prevention & Control of Pollution) Act, 1974 from the concerned State Pollution Control Board/ Committee.
1.5	NOC shall be obtained from National Commission of Seismic Design Parameters (NCSDS) of CWC.
1.6	Necessary approval of CEA shall be obtained for those projects having the project cost more than Rs. 1,000 crores.

**2. Air Quality Monitoring And Preservation**

S. No	EC Conditions
2.1	Regular monitoring of various environmental parameters viz., Water Quality, Ambient Air Quality and Noise levels as per the CPCB guidelines at designated locations shall be carried out on monthly basis and a detailed database of the same shall be prepared and recorded. This shall be used as a baseline data for post construction EIA / Monitoring purposes.
2.2	Appropriate Air Pollution Control (APC) system shall be provided for all the dust generating points including fugitive dust from all vulnerable sources, so as to comply prescribed standards.
2.3	Necessary control measures such as water sprinkling arrangements, etc. bet taken up to arrest fugitive dust at all the construction sites.
2.4	Conjunctive use of surface water to be planned in the project to check water logging as well as to increase crops productivity. The field drains shall be connected with natural drainage system (if applicable).
2.5	Remodelling of existing natural drains (link drains) and connecting them with irrigated land through constructed field drains, collector drains, etc. are to be ensured on priority basis (if applicable).
2.6	Before impounding of the water, Cofferdams for both at the upstream and downstream are to be decommissioned as per EIA/EMP report so that once the project is commissioned; cofferdam should not create any adverse impact on water environment including the rock mass and muck used for the Cofferdam.
2.7	As the reservoir will be acting as balancing reservoir and there would be fluctuation of water level during peaking period, efforts be made to reduce impact on aquatic life including impacts during spawning period both at the upstream and downstream of the project.
2.8	Water depth sensors shall be installed at suitable locations to monitor e-flow. Hourly data to be collected and converted to discharge data. The Gauge and Discharge data in the form of Excel Sheet be submitted to the Regional Office, MoEF & CC and to the CWC on weekly basis.
2.9	Mixed irrigation shall be practised and necessary awareness be given to all the farmers and trained in the use of such systems. Proper crops selection shall be carried out for making irrigation facility more effective (if applicable).
2.10	On Farm Development (OFD) works like landscaping, land levelling, drainage facilities, field irrigation channels and farm roads, etc. should be taken up in phased manner prior to the start of irrigation in the entire command area. The Command Area Development Plan should be strictly implemented as proposed in the EIA/EMP report (if applicable).

### 3. Noise Monitoring And Prevention

S. No	EC Conditions
3.1	All the equipment likely to generate high noise shall be appropriately enclosed or inbuilt noise enclosures be provided so as to meet the ambient noise standards as notified under the Noise Pollution (Regulation and Control) Rules, 2000, as amended in 2010 under the Environment Protection Act (EPA), 1986.

S. No	EC Conditions
3.2	The ambient noise levels should conform to the standards prescribed under E(P)A Rules, 1986 viz. 75 dB(A) during day time and 70 dB(A) during night time.

#### 4. Catchment Area Treatment Plan

S. No	EC Conditions
4.1	Catchment Area Treatment (CAT) Plan as proposed in the EIA/EMP report shall be implemented in consultation with the State Forest Department and shall be implemented in synchronization with the construction of the project.

#### 5. Waste Management

S. No	EC Conditions
5.1	Muck disposal be carried out only in the approved and earmarked sites. The dumping sites shall be located sufficiently away from the HFL of the river. Efforts be made to reuse the muck for construction and other filling purposes and balanced be disposed of at the designated disposal sites. Once the muck disposal sites are inactive, proper treatment measures like both engineering and biological measures be carried out so that sites are stabilized quickly.
5.2	Solid waste management should be planned in details. Land filling of plastic waste shall be avoided and instead be used for various purposes as envisaged in the EIA/EMP reports. Efforts be made to avoid one time use of plastics.

#### 6. Green Belt And Wildlife Management

S. No	EC Conditions
6.1	Based on the recommendation of Cumulative Impact Assessment and Carrying capacity study of river basin or as per the ToR conditions or minimum 15% of the average flow of four consecutive leanest months, whichever value is higher, shall be released as environmental flow.
6.2	Detailed information on species composition particular to fish species from previous study/literature be inventoried and proper management plan shall be prepared for insitu conservation in the streams, tributaries of river and the main river itself for which adequate budget provision be made and followed strictly.
6.3	Wildlife Conservation Plan approved by the Chief Wildlife Warden shall be implemented in consultation with the local State Forest Department.
6.4	To enrich the habitat of the project site, plantation shall be raised as envisaged in the EIA/EMP report. Plantation to be developed along the periphery of the reservoir in multi-layers with local indigenous species in consultation with the local State Forest Department.
6.5	Compensatory afforestation programme shall be implemented as per the plan approved.
6.6	Fish ladder/pass as envisaged in the EIA/EMP report shall be provided for migration of fishes.



S. No	EC Conditions
	Regular monitoring of this facility be carried out to ensure it effectiveness.

### 7. Public Hearing And Human Health Issues

S. No	EC Conditions
7.1	Resettlement & Rehabilitation plan be implemented in consultation with the State Govt. as approved by the State Govt.
7.2	Budget provisions made for the community and social development plan including community welfare schemes shall be implemented in toto.
7.3	Preventive measures viz. fuming and spraying of mosquito control shall be done in and around the labour colonies, affected villages, stagnated pools, etc. Provisions be made to not to create any stagnated pools to avoid creation of breeding grounds of the vector borne diseases.
7.4	Provision shall be made for the housing of construction labour within the site with all necessary infrastructure and facilities such as fuel for cooking, mobile toilets, mobile STP, safe drinking water, medical health care, crèche etc. The housing may be in the form of temporary structures to be removed after the completion of the project.
7.5	Labour force to be engaged for construction works shall be examined thoroughly and adequately treated before issuing them work permit. Medical facilities shall be provided at the construction sites.

### 8. Risk Mitigation And Disaster Management

S. No	EC Conditions
8.1	Early Warning Telemetric system shall be installed in the upper catchment area of the project for advance intimation of flood forecast.
8.2	Drilling and blasting shall be done only either by licensed explosive agent or by the proponent after obtaining required approvals from Competent Authorities.
8.3	Emergency preparedness plan be made for any eventuality of the dam failure and shall be implemented as per the Disaster Management Plan.
8.4	Stabilization of muck disposal sites using biological and engineering measures shall be taken up to ensure that muck does not roll down the slopes and shall be disposed safely and that it does not pollute the natural streams and water bodies in surrounding area. The engineering measures for the muck disposal arrangements be evolved after carrying out required slope stability analysis.
8.5	Catchment area treatment plan shall be prepared and sufficient fund shall be provided for afforestation, rim plantation, pasture development, nursery development.

### 9. Corporate Environment Responsibility

S. No	EC Conditions
9.1	The project proponent shall comply with the provisions contained in this Ministry's OM vide F.No. 22-65/2017-IA.III dated 30th September, 2020, as applicable, regarding Corporate Environment Responsibility.
9.2	Skill mapping be undertaken for the youths of the affected project area and based on the skill mapping, necessary trainings to the youths be provided for their long time livelihood generation
9.3	The company shall have a well laid down environmental policy duly approve by the Board of Directors. The environmental policy should prescribe for standard operating procedures to have proper checks and balances and to bring into focus any infringements/deviation/violation of the environmental / forest / wildlife norms/ conditions. The company shall have defined system of reporting infringements / deviation/violation of the environmental / forest / wildlife norms/conditions and / or shareholders/ stake holders. The copy of the board resolution in this regard shall be submitted to the MoEF&CC as a part of six-monthly report.
9.4	A separate Environmental Cell both at the project and company head quarter level, with qualified personnel shall be set up under the control of senior Executive, who will directly to the head of the organization.
9.5	Action plan for implementing EMP and environmental conditions along with responsibility matrix of the company shall be prepared and shall be duly approved by competent authority. The year wise funds earmarked for environmental protection measures shall be kept in separate account and not to be diverted for any other purpose. Year wise progress of implementation of action plan shall be reported to the Ministry/Regional Office along with the Six Monthly Compliance Report.
9.6	Post EIA and SIA be prepared for the project through a third party and evaluation report be submitted to the Ministry after five years of commissioning of the project.
9.7	Multi Disciplinary Committee (MDC) be constituted with experts from Ecology, Forestry, Wildlife, Sociology, Soil Conservation, Fisheries, NGO, etc. to oversee implementation of various environmental safeguards proposed in EIA/EMP report during construction of the project. The monitoring report the Committee shall be uploaded in the website of the Company.
9.8	Formation of Water User Association/Co-operative be made involment of the whole community be ensured for discipline use of available water for irrigation purposes

#### 10. Miscellaneous

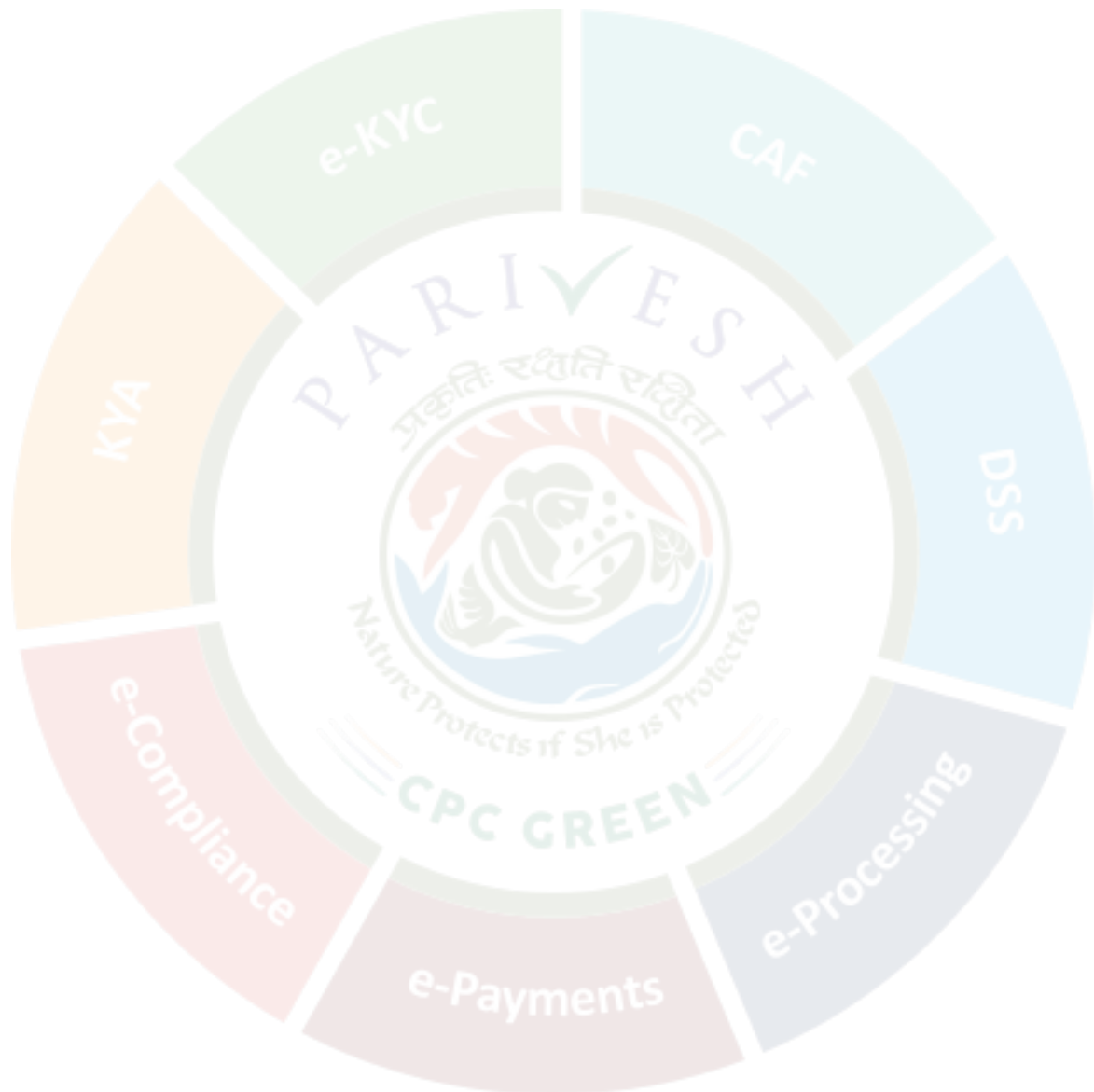
S. No	EC Conditions
10.1	The project proponent shall make public the environmental clearance granted for their project along with the environmental conditions and safeguards at their cost by prominently advertising it at least in two local newspapers of the District or State, of which one shall be in the vernacular language within seven days and in addition this shall also be displayed in the project proponent's website permanently.
10.2	The copies of the environmental clearance shall be submitted by the project proponents to the Heads of local bodies, Panchayats and Municipal Bodies in addition to the relevant offices of the

S. No	EC Conditions
	Government who in turn has to display the same for 30 days from the date of receipt.
10.3	The project proponent shall upload the status of compliance of the stipulated environment clearance conditions, including results of monitored data on their website and update the same on half-yearly basis.
10.4	The project proponent shall submit six-monthly reports on the status of the compliance of the stipulated environmental conditions on the website of the ministry of Environment, Forest and Climate Change at environment clearance portal.
10.5	The project proponent shall submit the environmental statement for each financial year in Form-V to the concerned State Pollution Control Board as prescribed under the Environment (Protection) Rules, 1986, as amended subsequently and put on the website of the company.
10.6	The project proponent shall inform the Regional Office as well as the Ministry, the date of financial closure and final approval of the project by the concerned authorities, commencing the land development work and start of production operation by the project.
10.7	The project authorities must strictly adhere to the stipulations made by the State Pollution Control Board and the State Government.
10.8	The project proponent shall abide by all the commitments and recommendations made in the EIA/EMP report, commitment made during Public Hearing and also that during their presentation to the Expert Appraisal Committee.
10.9	No further expansion or modifications in the plant shall be carried out without prior approval of the Ministry of Environment, Forests and Climate Change (MoEF&CC).
10.10	Concealing factual data or submission of false/fabricated data may result in revocation of this environmental clearance and attract action under the provisions of Environment (Protection) Act, 1986.
10.11	The Ministry may revoke or suspend the clearance, if implementation of any of the above conditions is not satisfactory.
10.12	The Ministry reserves the right to stipulate additional conditions if found necessary. The Company in a time bound manner shall implement these conditions.
10.13	The Regional Office of this Ministry shall monitor compliance of the stipulated conditions. The project authorities should extend full cooperation to the officer (s) of the Regional Office by furnishing the requisite data / information/monitoring reports.
10.14	The above conditions shall be enforced, inter-alia under the provisions of the Water (Prevention & Control of Pollution) Act, 1974, the Air (Prevention & Control of Pollution) Act, 1981, the Environment (Protection) Act, 1986, Hazardous and Other Wastes (Management and Transboundary Movement) Rules, 2016 and the Public Liability Insurance Act, 1991 along with their amendments and Rules and any other orders passed by the Hon'ble Supreme Court of India / High Courts and any other Court of Law relating to the subject matter.
10.15	Any appeal against this EC shall lie with the National Green Tribunal, if preferred, within a period

S. No	EC Conditions
	of 30 days as prescribed under Section 16 of the National Green Tribunal Act, 2010.

**Additional EC Conditions**

The above conditions will be enforced, inter-alia under the provisions of the Water (Prevention & Control of Pollution) Act, 1974, the Air (Prevention & Control of Pollution) Act, 1981, the Environment (Protection) Act, 1986, the Hazardous Waste (Management, Handling and Transboundary Movement) Rules, 2016 and the Public Liability Insurance Act, 1991 read with subsequent amendments therein.





**Tarali Open Loop Pumped Storage Project (1500 MW) in an area of 150.74 Ha located at Village Nivade, Tondoshi, Kalambe and Jalu, Sub District Patan, District Satara, Maharashtra by M/s Adani Green Energy Limited - Environmental Clearance (EC).**

**The salient features of the project: -**

The Project Proponent and the accredited Consultant R. S. Envirolinks Technologies Pvt. Ltd., made a detailed presentation on the salient features of the project and informed that:

- i. The proposed Tarali Pumped Storage Project is envisaged with a proposed installed capacity of 1500 MW (4 x 300 MW + 2 x 150 MW) located in the Satara district of Maharashtra, and is being developed by Adani Green Energy Ltd.
- ii. The Tarali Pumped Storage Project will comprise of two reservoirs i.e. Tarali reservoir (already existing) and Upper Reservoir (to be constructed). The project is located in Kalambe, Nivade, Tandoshi and Dafalwadi villages, Patan Taluka of Satara District of Maharashtra. It envisages construction of upper reservoir in Kalambe village in Patan Taluka of Satara District and use the existing Tarali lake as Lower reservoir in Nivade Village of Patan Taluka, Satara District

- iii. The geographical co-ordinate of the project are

Upper Dam: Longitude - 73°53'19.97"E

Latitude - 17°30'27.38"N

Lower Dam: Longitude - 73°53'54.11"E

Latitude 17°32'00.14"N

- iv. **Land requirement:**

Forest Land	: 0 ha
Non-forest Land	: 150.74 ha
Total Land	: 150.74 Ha

- v. The proposed Scheme will involve construction of 61.5 m high dam for creation of Tarali PSP Upper Reservoir with 11.36 MCM (0.40 TMC) gross storage capacity. Both the reservoirs are planned to be interconnected through water conductor system and the reversible generator pump turbine would be installed in the surface/ pit powerhouse. 2 nos.

of pressure shaft further bifurcated into 6 nos. of independent Penstock will be taking off from Intake structure provided with Trash rack and Gates located in upper reservoir. Pit type Powerhouse will be located on the downstream of the intake structure and shall be equipped with 6 Vertical Reversible Francis type units composed each of generator/motor and a pump/turbine having generated capacity of Four units of 300 MW each and 2 Units of 150 MW each.

- vi. The total design discharge for the proposed scheme is 90.15 m<sup>3</sup> /s per turbine during generation and 78.57 m<sup>3</sup> /s during pumping with the rated head of 380.43m during generation and 394.33m during pumping mode. The scheme is envisaged to meet the peak demand of about 6.5 hours with an estimated annual energy generation of 3365.48 MU.
- vii. The project proposal was considered by the Expert Appraisal Committee (River Valley and Hydropower Projects) in its meetings held on 14.09.2022 recommended for grant of Terms of Reference (ToRs). The ToR was accorded by Ministry of Environment Forests and Climate Change (MoEF&CC), Government of India vide letter no. J-12011/14/2022-IA. I(R) dated 9.11.2022. Due to change in location and configuration of project components; amendment in ToR for 1500 MW installed capacity approved in EAC meeting of 17.10.2023 and TOR amendment letter issued on 3.01.2024.
- viii. **Demographic details in 10 km radius of project area:**  
All project components as well as the entire study area fall under Patan and Satara tehsils in Satara district. There are 97 villages in the study area. Out of 97 villages, 75 are in Patan tehsil, and 22 are in Satara tehsil.

The baseline socio-economic profile is based on a field survey and the Census of India 2011. The total population of the study area is 74765 people, with 36357 males (48.62%) and 38408 females (51.37%). There are 16337 households, with an average occupancy of 4 to 5 people per house. The number of children under the age of six was found to be 8786, accounting for 11.75% of the total population. The sex ratio was found to be 1056 females per 1000 males.

There are 4942 scheduled castes population, accounting for 6.61% of the total population, with 2391 scheduled caste males and 2551 scheduled caste females. There are 543 scheduled tribes in total, accounting for 0.72% of the total population, with 283 scheduled tribe males and 260 scheduled tribe females.

The literacy rate in the study area is 75.37% (above the 6-year-old population), with males and females having rates of 87.10% and 65.10%, respectively, creating a gender gap of 22%.

According to the 2011 census total population of workers in the study area is 36824 (49.25%). Out of the total worker Main and marginal workers were 31459 (85.43%) and 5365 (14.56%) respectively.

Main and marginal workers are classified into four categories: cultivators, agricultural workers, household industry workers, and other workers. As per the 2011 census, out of a total of 36824 workers in the study area, 80.08% of the working population are engaged in agriculture and allied services, out of which 58.80% are cultivators and 21.28% are agricultural labourers. Only a small percentage of the population engaged in household industry 3.42%, and 16.49% of the population engaged in other services, viz., trade, commerce, business, transport, government, and private jobs.

- ix. **Water requirement:** The water requirement for the upper reservoir initial filling up to MDDL (one-time) is about 0.94 Mm<sup>3</sup> and water required from the existing lower reservoir for operation of PSP is 10.42 Mm<sup>3</sup>. The annual water requirement for recuperating losses in upper reservoir storage due to evaporation, transit etc. has been estimated to be about 0.46 Mm.
- x. **Project Cost:** The estimated project cost is Rs 5675.0 crore. Total capital cost earmarked towards Environment Management Plan/environmental pollution control measures is Rs. 3934.08 lakh and the Recurring cost (operation and maintenance) will be about Rs. 2753.20 lakh.
- xi. **Project Benefit:** Total Employment will be 1000 persons as direct & persons indirect after expansion. Industry proposes to allocate Rs. 2124.12 Lakh towards CER (as per Ministry's OM dated 30<sup>th</sup> Sep 2020).
- xii. **Environmental Sensitive area:** No project component falls in any notified protected area. Nearest protected areas to the project components are Sahyadri Tiger Reserve and Koyna Wildlife Sanctuary, which are at the distance of 1.5 km and 3.2 km, respectively. As the Eco-sensitive zones (ESZ) are not notified, project will undergo Wildlife Clearance from National Board of Wildlife (NBWL).
- xiii. MOU signed with Maharashtra State Government on 28<sup>th</sup> June 2022.
- xiv. **Resettlement and rehabilitation:** The entire private land identified for the project falls in four revenue villages namely Kalambe, Nivade, Dafalwadi and Tondoshi villages of Patan Taluka of Satara District of Maharashtra. Due to in the proximity of project area and issues raised by villagers during public hearing, Dafalwadi village was also considered as project affected village. The private land identified for the projects belongs to landowner families who will be losing their partial agricultural land holding and none of the families will be losing any house or any other assets. None of them is getting displaced due to the

project from the above land procurement.

xv. **Alternative Studies:** Three alternative layouts are studied for Tarali PSP. For these three layouts two alternative locations of upper reservoirs (UR-1 and UR-2) and two alternative locations of powerhouse (PH-1 and PH-2) have been explored, whereas lower reservoir is kept same for all the options. Considering lesser excavation in powerhouse (PH-2) and lesser length of dam, higher storage capacity (UR-2) in reservoir, the Alternative-3 (UR-2 + PH-2 + LR) appears to be preferable than other two Alternatives-1 & 2. Hence, Alternative-3 is considered for further study.

xvi. Baseline Environmental Scenario:

Period	From January 2023 To May 2023				
AAQ parameters at 10 locations (min. & Max.)	Unit in $\mu\text{g}/\text{m}^3$				
	<b>Core</b>	<b>Min</b>	<b>Max</b>	<b>Standards</b>	
	PM <sub>2.5</sub>	10.30	16.70	60	
	PM <sub>10</sub>	25.40	37.50	100	
	SO <sub>2</sub>	4.00	5.20	80	
	NO <sub>2</sub>	4.30	5.50	80	
	<b>Buffer</b>	<b>Min</b>	<b>Max</b>		
	PM <sub>2.5</sub>	9.30	23.50	60	
	PM <sub>10</sub>	25.10	52.90	100	
	SO <sub>2</sub>	3.60	7.30	80	
NO <sub>2</sub>	3.90	7.80	80		
Incremental GLC Level	Criteria Pollutant [PM <sub>10</sub> , PM <sub>2.5</sub> , SO <sub>2</sub> , NO <sub>x</sub> , Other parameters specific to the sector (Please specify)]	Unit [ $\mu\text{g}/\text{m}^3$ ]	Baseline Concentration [A]	Predicted incremental value considering worst case stability class [B]	Total GLC [A]+[B]
	<b>Core Zone</b>				
	PM10	$\mu\text{g}/\text{m}^3$	39.0	8.5	47.5
	PM2.5	$\mu\text{g}/\text{m}^3$	13.5	22	35.5
	SOx	$\mu\text{g}/\text{m}^3$	4.6	18	22.6
	NOx	$\mu\text{g}/\text{m}^3$	4.9	25	29.9
	<b>Buffer Zone</b>				
	PM10	$\mu\text{g}/\text{m}^3$	39.0	8.5	47.5
	PM2.5	$\mu\text{g}/\text{m}^3$	16.40	6	22.4
	SOx	$\mu\text{g}/\text{m}^3$	5.45	7	12.45
	NOx	$\mu\text{g}/\text{m}^3$	4.85	8	12.85
	River water	Core Zone			



<b>samples (04 samples)</b>	<b>S. No</b>	<b>Parameters</b>	<b>Min</b>	<b>Max</b>	<b>Standards</b>	
	1	pH	6.8	7.25	8.5	
	2	Total Dissolved Solids, mg/L	13	45	500	
	3	Dissolved Oxygen (mg/l)	6.3	8.8	3	
	4	Chloride (as Cl), mg/L	1.9	12.6	0	
	5	Total Hardness (as CaCO <sub>3</sub> ), mg/L	10	25.3	200	
	6	Biological Oxygen Demand (mg/l)	2	2	2	
	7	Chemical Oxygen Demand (mg/l)	6	6	0	
	8	Total Coliform (MPN/100 ml)	26	67	50	
	<b>Buffer Zone</b>					
	<b>S. No</b>	<b>Parameters</b>	<b>Min</b>	<b>Max</b>	<b>Standards</b>	
	1	pH	6.7	7.42	8.5	
	2	Total Dissolved Solids, mg/L	31	70	500	
	3	Dissolved Oxygen (mg/l)	6.5	7.7	3	
	4	Chloride (as Cl), mg/L	4.5	7.6	0	
	5	Total Hardness (as CaCO <sub>3</sub> ), mg/L	16.3	20.9	200	
	6	Biological Oxygen Demand (mg/l)	2	2	2	
	7	Chemical Oxygen Demand (mg/l)	6	6	0	
	8	Total Coliform (MPN/100 ml)	21	55	50	
	<b>Pond water samples</b>	-				
	<b>Groundwater water samples quality at 0 location</b>	<b>Core Zone</b>				
		<b>S. No</b>	<b>Parameters</b>	<b>Min</b>	<b>Max</b>	<b>Standards</b>
		1	pH	6.5	7.9	6.5
		2	Total Dissolved Solids, mg/L	49	226	500
3		Chloride (as Cl), mg/L	20	64	250	
4		Total Hardness (as CaCO <sub>3</sub> ), mg/L	83.7	184.7	200	
5		Fluoride	0.05	0.13	1	
<b>Buffer Zone</b>						
<b>S. No</b>		<b>Parameters</b>	<b>Min</b>	<b>Max</b>	<b>Standards</b>	

	1	pH	6.5	7.49	6.5			
	2	Total Dissolved Solids, mg/L	42	281	500			
	3	Chloride (as Cl), mg/L	15	72	250			
	4	Total Hardness (as CaCO <sub>3</sub> ), mg/L	90.3	154.4	200			
	5	Fluoride	0.07	0.36	1			
<b>Noise levels Leq (Day &amp; Night) at 10 locations</b>	<b>Noise Level</b>	<b>Zone</b>	<b>Leq Day dB(A)</b>		<b>Leq Night dB(A)</b>		<b>Prescribed Limits</b>	
			<b>From</b>	<b>To</b>	<b>From</b>	<b>To</b>	<b>Day</b>	<b>Night</b>
	Core	Residential 1	46.7	51.1	36.1	39.4	55	45
	Buffer	Residential 1	48.2	54	37.2	41.7	55	45
<b>Soil Quality at 10 Locations</b>	<b>Core Zone</b>							
	<b>S. No.</b>	<b>Parameters</b>	<b>Min</b>	<b>Max</b>	<b>Prescribed Limits</b>			
	1	Calcium (mg/kg)	114	272	500			
	2	Sodium Absorption Ratio	1.3	1.9	10			
	3	Phosphorus (kg/ha)	6.5	11.6	50			
	4	Carbon (%)	0.66	0.8	1			
	5	Salinity (ppt)	0	0	0.01			
	6	Magnesium (mg/kg)	55	202	500			
	7	Nitrogen (kg/ha)	230	342	500			
	8	Potassium (kg/ha)	219	449	500			
	<b>Buffer Zone</b>							
	1	Calcium (mg/kg)	41	157	500			
	2	Sodium Absorption Ratio	1.1	3.8	10			
	3	Phosphorus (kg/ha)	7.8	25.7	50			
	4	Carbon (%)	0.55	0.9	1			
	5	Salinity (ppt)	0	0	0.01			
6	Magnesium (mg/kg)	23	101	500				
7	Nitrogen (kg/ha)	180	323	500				
8	Potassium (kg/ha)	220	332	500				
<b>Flora &amp; Fauna</b>	Schedule-I species observed in the study area:							
	As per Wildlife Protection Amendment Act, 2022, Sambar Deer, Indian Bison, Four-horned Antelope, Common Leopard, Indian Fox, Jackal, Grey Wolf, Indian Grey Mongoose, Striped Hyena, Sloth Bear, Indian Pangolin, Porcupine, White-eyed Buzzard, Cobra are listed as Schedule I species.							

xvii. **Details of Solid waste/ Hazardous waste generation/ Muck and its management:**

- The generated muck will be carried in dumper trucks covered with heavy duty

tarpaulin properly tied to the vehicle in accordance with best international practices. All precautionary measures will be followed during the dumping of muck. All dumpers will be well maintained to avoid any chances of loose soil from being falling during transportation. All routes will be periodically wetted with the help of sprinklers prior to the movement of dumper trucks. Dumping would be avoided during the high-speed wind, so that suspended particulate matters (SPM) level could be maintained. Further, dumping will be avoided during heavy traffic. After the dumping the surface of dumps will be sprayed with water with the help of sprinklers and then compacted.

- Four muck disposal yards has been identified with a total area of 35.0 ha and capacity has been worked as 17,77,530 cum.
- The disposal site was identified taking into consideration availability of suitable area, minimum distance from generation sites.

- xviii. Public Hearing for the proposed project has been conducted by the Maharashtra Pollution Control Committee on 12.03.2024 at Satara district, Maharashtra. The meeting was chaired by Resident Deputy Collector & Upper District Magistrate, District Satara. The main issues raised and replies by the user agency during the public hearing are detailed in the Public Hearing report submitted on PARIVESH.
- xix. Status of Litigation Pending against the proposal, if any: No
- xx. The salient features of the project are as under: -

<b>1</b>	<b>EAC MEETING DETAILS</b>		
i	EAC meeting/s	:	21st EAC Meeting
ii	Date of Meeting/s	:	31.12.2024
iii	Date of earlier EAC meetings	:	14.09.2022 (TOR) & 17.10.2023 (TOR amendment)
<b>2</b>	<b>PROJECT DETAILS</b>		
i	Name of the Proposal	:	Tarali Open Loop Pumped Storage Project (1500 MW)
ii	Proposal No.	:	IA/MH/RIV/487971/2024
iii	Location (including coordinates)	:	Tarali PSP is located near Dangistewadi village, Patan Taluka of Satara District of Maharashtra.

			<b>Reservoir</b>	<b>Latitude</b>	<b>Longitude</b>
			Lower Reservoir	17°32'00.14"N	73°53'54.11"E
			Upper Reservoir	17°30'27.38"N	73°53'19.97"E
iv	Company's Name	:	M/s Adani Green Energy Limited		
v	CIN no. of Company/user agency	:	U40106GJ2015PLC082007		
vi	Accredited Consultant and certificate no.	:	NABET/EIA/2225/RA 0274		
vii	Project location (Coordinates /River/ Reservoir)	:	Near Village: Nivade, Tondoshi, Kalambe and Jalu		
viii	Interstate Issue	:	No		
ix	Proposed on River/ Reservoir	:	Tarali Reservoir		
x	Type of Hydro-electric project	:	Pumped Storage Project		
xi	Seismic Zone	:	Zone-IV		
<b>3</b>	<b>CATEGORY DETAILS</b>				
i	Category of the project	:	A		
ii	Capacity / <del>Cultural command area (CCA)</del>	:	1500MW		
iii	Attracts the General Conditions (Yes/No)	:	Yes		
v	Additional Information if any	:	No		
<b>4</b>	<b>TOR/EC DETAILS</b>				
i	ToR Proposal No.	:	IA/MH/RIV/289096/2022		
ii	EAC meeting date	:	14.09.2022 (TOR) & 17.10.2023 (TOR amendment)		
iii	ToR Letter No.	:	J-12011/14/2018-IA-I (R) & J-12011/52/2023-IA-I (R)		
iv	ToR grant Date	:	09.11.2022 (TOR) & 03.01.2024 (TOR amendment)		
v	Cost of project	:	INR 5675.0 Cr		



vi	Total area of Project	:	150.74 Ha
vii	Height of Dam from River Bed (EL)	:	61.5 m (Upper Dam)
viii	Details of submergence area	:	51.93 ha
ix	District to provide irrigation facility (if applicable)	:	NA
x	Details of tunnels on upper level & lower level and length of canal (if applicable)	:	
xi	No. of affected Village	:	4
xii	No. of Affected Families	:	325
xiii	Project Benefits	:	<b>Power Generation:</b>
			<p>As the Tarali PSP (1500 MW) will come into operation, the electricity generated using the renewable source of energy (i.e. water) is more as compare to the use of fossil fuel. Thus, Air pollution will be much lesser in the given area as the pump storage project get commence. Moreover, while building the project there will be no loss of forest land. For construction of Tarali PSP, no forest land shall be diverted. To develop Greenbelt in the surrounding of project area, plantation over 40.0ha is proposed over restored temporary construction sites and muck dumping area.</p> <p>Watershed development plan has been prepared for soil conservation and management of water resources in the study area with financial provision of <b>Rs. 38.79 lakh.</b></p>

			<p>A financial provision of <b>Rs. 20.98 crore</b> has been allocated for strengthening and development of basic infrastructural facilities with a view to improve the quality of life of residents in the project vicinity.</p> <p>In addition, the project would lead to creation of direct and indirect employment opportunities as new factories would come up in and around the project due to reliable power supply/availability, contract works for the locals during construction and operation phase, etc.</p> <p>The project may also increase recreation and tourism potential together with development of infrastructural facilities in the area. All these activities have positive impact on socio-economic environment and will increase the economic status of the people and hence there would be all-round development of the region.</p>
xiv	R&R details	:	<p>The entire private land identified for the project falls in four revenue villages namely Kalambe, Nivade, Dafalwadi and Tondoshi villages of Patan Taluka of Satara District of Maharashtra. Due to its proximity to the project area and issues raised by villagers during public hearing, Dafalwadi village was also considered as project affected village. The private land identified for the projects belongs to landowner families who will be losing their partial agricultural land holding and none of the families will be losing any house or any other assets. None of them is getting displaced due to the project from the above land procurement.</p>
xv	Catchment area/ Command area	:	<p>Catchment Area: 1.18 sq km (Upper Reservoir)</p>

xvi	Types of Waste and quantity of generation during construction/ Operation	:	Municipal Solid Waste- Bio degradable (551.80 Tons), Non degradable (236.52 Tons)
xvii	Material used for blasting and its composition as per DGMS standards.	:	Explosive magazine of adequate capacity would be constructed to store the explosives required for the construction of the project components. It has been assessed that one magazine of 20 MT capacities would be sufficient to meet the requirement of the project. A mobile explosive van shall be deployed to carry explosive at the site of use at upper and powerhouse area. Movement of van should be done with armed guards and proper documentation recommended by PESO.
xviii	E-Flows for the Project	:	<p>Proposed PSP is a pumped storage scheme and doesn't involve building any dam/barrage on river Tarali and will not be diverting any water from river Tarali. Only evaporation and transmission losses from upper reservoir of 0.46 Mm3 will be compensated from upper reservoir. Water required for daily generation is 10.42 MCM, the requirement has been adequately reviewed by WRD and water allocation is made without impacting existing users. After analysing the present water utilization catered by Tarali reservoir for drinking and irrigation purposes, Water Resource Department Maharashtra has granted the Industrial Water Entitlement (Bulk Water Entitlement) for Tarali Pumped Storage Project.</p> <p>As the project is not storing/ diverting water of river Tarali, e-flow of water in river Tarali will not be impacted by the project.</p>
xix	Is Projects earlier studied in Cumulative Impact assessment & Carrying Capacity	:	No

	studies(CIA&CC) for River in which project located. If yes then  c) E-flow with TOR/Recommendation by EAC as per CIA&CC study of River Basin.  d) If not the E-Flows maintain criteria for sustaining river ecosystem.		
xx	Details on provision of fish pass	:	No
xxi	Project benefit including employment details (no of employee)	:	About 1000 workers (labour and staff) would be engaged during the peak construction period, out of which 250 persons will be engaged permanently and about 750 will be temporary labour for the construction work. It is expected that 70% of the total workforce shall be available from the State of Maharashtra. After completion of the project only a staff of about 200 technical persons shall be required for the operation of the project.
xxii	Area of Compensatory Afforestation (CA) with tentative no of plantation.	:	Since, there is no requirement of any forest land diversion for construction of various components, therefore requirement of preparation of Compensatory Afforestation Plan is not applicable in the present case.
xxiii	Previous EC details	:	-
xiv	EC Compliance Report by R.O, MOEF&CC	:	-
<b>6</b>	<b>ELECTRICITY GENERATION CAPACITY</b>		
i	Powerhouse Installed Capacity	:	1500 MW



ii	Generation of Electricity Annually	:	3365.48 MU
iii	No. of Units	:	6 nos. (4 x 300 MW + 2 x 150MW)
<b>6</b>	<b>MUCK MANAGEMENT DETAILS</b>		
i	No. of proposed disposal area/ (type of land- Forest/Pvt land)	:	4
ii	Cross section of proposed muck area, Height of muck with slope.	:	Attached as Appendix I
iii	Distance of muck disposal area (location), from muck generation sources (project area)/River, HFL of proposed muck disposal area.	:	Muck disposal area from upper reservoir is 750m Muck disposal area from power house are 650m, 900m and 2500m
iv	Total Muck Disposal Area	:	35.0 ha
v	Estimate Muck to be generated	:	2989569 Cum
vi	Transportation	:	The generated muck will be carried in dumper trucks covered with heavy duty tarpaulin properly tied to the vehicle in accordance with best international practices. All precautionary measures will be followed during the dumping of muck. All dumpers will be well maintained to avoid any chances of loose soil from being falling during transportation. All routes will be periodically wetted with the help of sprinklers prior to the movement of dumper trucks. Dumping would be avoided during the high-speed wind, so that suspended particulate matters (SPM) level could be maintained. Further, dumping will be avoided during heavy traffic. After the dumping the surface of dumps will be sprayed with water with the help of sprinklers and then compacted.
vii	Monitoring mechanism for Muck Disposal Transportation	:	The provisions of Monitoring have been kept under proposed Environmental Monitoring Plan.
<b>7</b>	<b>LAND AREA BREAK-UP</b>		

i	Private Land	:	150.74 ha
ii	Forest Land	:	0
iii	Submergence area/Reservoir area	:	51.93 ha
iv	Land required for project components	:	98.81 ha
<b>8</b>	<b>PRESENCE OF ENVIRONMENTALLY SENSITIVE AREAS IN THE STUDY AREA</b>		
<b>S.no</b>	<b>Forest Land/ Protected Area/ Environmental Sensitivity Zone</b>	<b>Yes/ NO</b>	<b>Details of Certificate/letter/Remarks</b>
i	Reserve Forest/Protected Forest Land	No	No project component falls in any notified protected area. The project components are proposed outside the buffer zone of Sahyadri Tiger Reserve.
ii	National Park	No	
iii	Wildlife Sanctuary	Yes	The nearest distance of project components from Koyna Wildlife Sanctuary is 3.2 km.
iv	Archaeological sites monuments/historical temples etc	No	
v	Additional information (if any)	-	
<b>Availability of Schedule-I species in study area:</b> As per Wildlife Protection Amendment Act, 2022, Sambar Deer, Indian Bison, Four-horned Antelope, Common Leopard, Indian Fox, Jackal, Grey Wolf, Indian Grey Mongoose, Striped Hyena, Sloth Bear, Indian Pangolin, Porcupine, White-eyed Buzzard, Cobra are listed as Schedule I species.			
<b>9</b>	<b>PUBLIC HEARING (PH) DETAILS</b>		
i	Advertisement for PH with date	:	State level Marathi and English newspaper dated 07.02.2024
ii	Date of PH	:	12.03.2024
iii	Venue	:	Near Gagangiri Maharaj Math at Village Kalambe, taluka Patan, district Satara, Maharashtra
iv	Chaired by	:	Resident Deputy Collector & Upper District Magistrate, District Satara
v	Main issues raised during PH	:	Concerns about Cattle grazing land; The area is vulnerable to landslide and soil erosion; Pazar lake; sewage from the workers colony

			living here gets mixed with the seepage pond, threatening the health of the village.	
vi	No. of people attended	:	150	
<b>9</b>	<b>BRIEF OF BASE LINE ENVIRONMENT</b>			
i	<b>Parameters</b>	:	<b>Winter</b>	<b>Pre-Monsoon/ Summer</b>
ii	Soil	:	January, 2023	April-May, 2023
iii	Air Environment	:	January-February, 2023	April-May, 2023
iv	Noise & Traffic	:	January, 2023	April-May, 2023
v	Water Quality	:	January, 2023	April-May, 2023
vi	Vegetation	:	January, 2023	April-May, 2023
vii	Fauna surveys	:	January, 2023	April-May, 2023
viii	Socio-economic survey	:	April-May, 2023	
ix	Brief description on hydrology and water assessment as per the approved Pre-DPR:	:	<p>Tarali project is a pumped storage project and hence no consumptive use of water has been envisaged for power generation except some water losses due evaporation and seepage. The upper reservoir initial filling up to MDDL can be done within 2 years from existing lower reservoir water; also remaining reservoir filling will be done from existing lower reservoir. The water lost due to evaporation in upper reservoir will also be replenished from existing lower reservoir. The water to be recycled daily between upper and lower reservoirs will be used from existing lower reservoir. Thus, water requirement for the upper reservoir initial filling up to MDDL (one-time) is about 0.94 Mm<sup>3</sup> and water required from the existing lower reservoir for operation of PSP is 10.42 Mm<sup>3</sup>. The annual water requirement for recuperating losses in upper reservoir storage</p>	

			due to evaporation, transit etc. has been estimated to be about 0.46 Mm.					
x	Additional detail (If any)	:						
<b>10</b>	<b>COURT CASE DETAILS</b>							
i	Court Case	:	No					
ii	Additional information (if any)	:	-					
<b>11</b>	<b>STATUS OF OTHER STATUTORY CLEARANCES</b>							
<b>S.No</b>	<b>Particulars</b>	<b>:</b>	<b>Letter no. and date</b>					
i	Status of Stage- I FC	:	The total land requirement for Tarali Pumped Storage Project works out to approximately <b>150.74 ha</b> . Entire land is non-forest land and diversion of forest land is not involved. Therefore, forest clearance is not applicable.					
ii	Approval of Central Water Commission	:	Hydrology chapter of Tarali PSP has been approved by the CWC vide File No. T-11031/2/2023-HYD(S) DTE dated 04.12.2023.					
iii	Approval of Central Electricity Authority	:	Pre-DPR Chapter on Power Evacuation system of Tarali PSP is approved by CEA vide File No. CEA-PS-11-23(23)/1/2024-PSPA-I Division					
iv	Additional detail (If any)	:						
v	Is FRA (2006) done for FC-I	:						
<b>12</b>	<b>DETAILS OF THE EMP</b>							
S. No.	Component of EMP	Capital Cost	Recurring Cost (Rs. in lakh)					Total Cost
		(Rs. in lakh)	Year 1	Year 2	Year 3	Year 4	Year 5	(Rs. in lakh)
1	Catchment Area Treatment Plan	1.15	0.00	0.00	0.00	0.00	0.00	<b>1.15</b>
2	Compensatory Afforestation and NPV*	0.00	0.00	0.00	0.00	0.00	0.00	<b>0.00</b>
3	Biodiversity Conservation & Wildlife Conservation Plan	966.15	0.00	0.00	0.00	0.00	0.00	<b>966.51</b>
4	Fisheries Development Plan	89.00	0.00	0.00	0.00	0.00	0.00	<b>89.00</b>



5	Muck Dumping and Management Plan	100.00	320.25	282.50	540.50	465.50	0.00	<b>1708.75</b>
6	Landscaping, Restoration of Construction Sites	20.00	86.34	95.60	85.40	60.50	0.00	<b>347.84</b>
7	Sanitation and Solid Waste Management Plan	167.00	34.00	34.00	30.00	0.00	5.00	<b>270.00</b>
8	Public Health Delivery System	60.00	54.50	54.50	54.00	0.00	0.00	<b>223.00</b>
9	Energy Conservation Measures	40.00	61.00	61.00	61.00	0.00	0.00	<b>223.00</b>
10	Labour Management Plan	15.00	17.50	17.50	17.00	0.00	0.00	<b>67.00</b>
11	Green Belt Development Plan	2.40	1.00	5.00	12.00	7.00	4.29	<b>31.69</b>
12	Pollution Mitigation Measures	0.00	15.00	15.00	15.00	0.00	0.00	<b>45.00</b>
13	Environmental Monitoring Program	0.00	38.77	38.77	38.78	0.00	0.00	<b>116.32</b>
14	Rehabilitation and Resettlement Plan**	0.00	0.00	0.00	0.00	0.00	0.00	<b>0.00</b>
15	Local Area Development Plan	2124.12	0.00	0.00	0.00	0.00	0.00	<b>2124.12</b>
16	Disaster Management Plan	275.00	42.00	41.50	41.50	0.00	0.00	<b>400.00</b>
17	Watershed Development Plan	74.26	0.00	0.00	0.00	0.00	0.00	<b>74.26</b>
	<b>Total</b>	<b>3934.08</b>	<b>670.36</b>	<b>645.37</b>	<b>895.18</b>	<b>533.00</b>	<b>9.29</b>	<b>6687.28</b>

\* Diversion of forest land is not required for the proposed project.

\*\*150.74 ha of non-forest land identified for the proposed project will be purchased directly from respective landowners through negotiations on a mutually agreed term.