File No: J-12011/28/2023-IA.I (R)
Government of India
Ministry of Environment, Forest and Climate Change
IA Division
***

Date **03/09/2026**

To,

Mr. Mohit Rawat
M/s. ADANI GREEN ENERGY LIMITED
Adani Corporate House, Shantigram Near Vaishno Devi Circle, S G Highway, Khodiyar, Ahmedabad , Nivakane, SATARA, MAHARASHTRA, , 382421
agel.psp@adani.com

Subject: **Nivakane (Integrated) Pumped Storage Project (2700 MW) in an area of 361.82ha at Village Marathwadi, Tehsil 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/580995/2026 submitted on 12/06/2026 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 Nivakane (Integrated) Pumped Storage Project (2700 MW) in an area of 361.82ha at Village Marathwadi, Tehsil Patan, District Satara, Maharashtra by M/s Adani Green Energy Limited.

2. The particulars of the proposal are as below :

(i) EC Identification No.	EC26A0000MH5923016N
(ii) File No.	J-12011/28/2023-IA.I (R)
(iii) Clearance Type	Fresh EC
(iv) Category	A
(v) Project/Activity Included Schedule No.	1(c) River Valley/Irrigation projects,1(c) River Valley/Irrigation projects
(vi) Sector	River Valley and Hydroelectric Projects
(vii) Name of Project	Nivakane (Integrated) Pumped Storage Project
(viii) Name of Company/Organization	ADANI GREEN ENERGY LIMITED
(ix) Location of Project (District, State)	SATARA, MAHARASHTRA
(x) Issuing Authority	
(xi) Applicability of General Conditions as per	No

3. In view of the particulars given in the Para 2 above, the project proposal inter-alia including Common Application Form (CAF), Part A, B and C and EIA & EMP Reports were submitted to the MoEF&CC for an appraisal by the Expert Appraisal Committee (River Valley & Hydro-electric) under the provision of EIA notification 2006, as amended.

4. The above-mentioned proposal was reviewed by the 58th Expert Appraisal Committee (EAC) during its meeting held on 15th July, 2026. The minutes of the meeting, along with all submitted application documents (including Form-1 Parts A and B), are available on the PARIVESH portal, which can be accessed by scanning the QR Code above.

5. The EAC after examining the information submitted and detailed deliberations **recommended** the proposal for grant of prior Environmental Clearance to Nivakane (Integrated) Pumped Storage Project (2700 MW) in an area of 361.82ha at Village Marathwadi, Tehsil Patan, District Satara, Maharashtra by M/s Adani Green Energy Limited under the provisions of EIA Notification, 2006 and as amended subject to compliance of applicable Standard EC conditions with certain specific conditions (Annexure - 1).

6. The details of the project as per the information submitted by the Project proponent are given in Annexure – 2.

7. The MoEF&CC has examined the proposal in accordance with the provisions contained in the Environment Impact Assessment (EIA) Notification, 2006, as amended and based on recommendation of EAC, the Ministry, hereby accords approval for grant of Environmental Clearance to the Nivakane (Integrated) Pumped Storage Project (2700 MW) in an area of 361.82ha at Village Marathwadi, Tehsil Patan, District Satara, Maharashtra by M/s Adani Green Energy Limited- Environmental Clearance, under the provisions of EIA Notification, 2006, as amended subject to compliance of the Specific and Standard EC conditions as given in Annexure (1) for environmental safeguards.

8. 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.

9. 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.

10. 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.

11. The Validity of EC is upto 13 years to the start of production operations by the project or activity. In case the project proponent fails to start the production operations within the EC validity date, application for EC validity extension shall be submitted to the regulatory authority.

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. 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 operational 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).
(i) The plantation under Green Credit Program by the Project Proponent shall not be eligible for site specific plantation clearance forming part of Environment Clearance.

14. 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, New Delhi, Delhi, secy-power@nic.in
2. The Secretary, Ministry of Jal Shakti Department of Water Resources River Development and Ganga Rejuvenation Government of India, Shram Shakti Bhawan Rafi Marg New Delhi – 110001, New Delhi, Delhi, secy-mowr@nic.in
3. The Deputy Director General, Regional Office, Deputy Director General Of Forests (C) Ministry Of Environment Forest And Climate Change Integrated Regional Office Ground Floor East Wing New Secretariat Building Civil Lines

Nagpur-440001., N/A, N/A, apccfcentral-ngp-mef@gov.in
4. The Monitoring Cell MoEFCC, Compliance & Monitoring Division, Indira Paryavaran Bhawan Jor Bagh Road New Delhi, South, Delhi, moefcc-monitoring@gov.in
5. The Member Secretary, CGWA, 18/11 Jamnagar House Man Singh Road, Central, Delhi, cgwa@nic.in
6. The Member Secretary, CPCB, Parivesh Bhawan Cbd-Cum-Office Complex East Arjun Nagar, East, Delhi, mscb.cpcb@nic.in
7. The Chairman, Central Water Commission Ministry of Jal Shakti., 2nd Floor (South) Sewa Bhawan R K Puram New Delhi 110066, South, Delhi, chairman-cwc@nic.in
8. The Chairman Central Electricity Authority, Central Electricity Authority Ministry of Power, Room No. 201 2nd Floor (North) Sewa Bhawan New Delhi, Central, Delhi, chair@nic.in
9. The Member Secretary, SPCB/PCC, Kalptaru Point 2nd - 4th Floor Opp. Cine Planet Sion Circle Sion (E), Mumbai, Maharashtra, mpcbparivesh@mpcb.gov.in

Annexure 1

Specific EC Conditions for (River Valley/irrigation Projects)

1. [A] Environmental Management And Biodiversity Conservation:

S. No	EC Conditions
1.1	The Environmental Clearance is subject to obtaining prior clearance from wild life angle including clearance from the Standing Committee of the National Board for Wildlife. Project Proponent shall obtain the requisite approval of the Standing Committee of NBWL before commencement of construction or any other project activity requiring such approval under the Wildlife (Protection) Act, 1972 as amended, and shall implement all recommendations and conditions stipulated by the Standing Committee of NBWL. As the project components are at an approximate distance of 0.15 km from the boundary of the Sahyadri Tiger Reserve.
1.2	The Project Proponent shall ensure strict compliance with all recommendations of the EAC Sub-Committee that visited the project site on 26th November, 2024, and submit a compliance report to the Regional Office of the Ministry before commencement of major construction activities and thereafter as part of the six-monthly compliance reports.
1.3	Aquifer mapping shall be done through expert government institute and accordingly an action plan for conservation, protection and rejuvenation of all natural streams, springs in the study area i.e. (within 10 km of lower and upper reservoir) shall be prepared and implemented in time bound manner.
1.4	A thick greenbelt using native plant species shall be developed around the perimeter of all project appurtenances and along designated stretches of the reservoir periphery to minimize soil erosion and dust emissions. Miyawaki forests shall be developed in the study area in consultation with local ecological experts. A time bound action plan shall be submitted to the RO, MoEF&CC in this regard.
1.5	The project proponent shall implement a comprehensive water-flow management plan to minimize alterations to local hydrological conditions caused by periodic pumping cycles between the two reservoirs.
1.6	The Project Proponent shall strictly implement all the recommendations stipulated in the approved Wildlife Conservation Plan (WLCP). Any additional measures/recommendations prescribed by the Chief Wildlife Warden shall be implemented by the Project Proponent in a time-bound manner, with adequate budgetary provisions, and compliance thereof shall be submitted to the Regional

S. No	EC Conditions
	Office of the Ministry.
1.7	The Environmental Management Plan (EMP) covering aspects related to conservation and protection of native fish species and macro-invertebrates from operational impacts shall be strictly adhered to as submitted in EIA/EMP report and as recommended by the EAC. 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. That adequate budgetary provisions be made for the implementation, monitoring, and maintenance of environmental safeguards during the operation phase of the project.
1.8	The contract clause limiting the No. of vehicles used during excavation and transportation shall followed scrupulously and the same shall informed to the ministry.
1.9	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.
1.10	Dense plantation should be done in and around the muck disposal area in consultation with local Forest Department and the survival of plants shall be submitted with the 6 monthly compliance report.
1.11	E-flow in the river/stream shall be maintained to minimum 15-20% of the average flow of four consecutive leanest months. Real-Time Monitoring of E-flow shall be insured downstream of the dam/barrage. The monitoring data shall be displayed on a digital display board at the project site and transmitted to the concerned State Pollution Control Board (SPCB)/Pollution Control Committee (PCC) through an online monitoring system.
1.12	Watershed development plan prepared shall 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.
1.13	A separate Environmental Management Cell, under the supervision of a Environment Manager having Post Graduate qualification in Environmental Sciences/ Environmental Engineering shall be established, equipped with full-fledged laboratory facilities shall be set up both at the project and company headquarter levels to carry out Environmental Management activities and report directly to the Head of the Organization/Head of the Project.

2. [B] Disaster Management:

S. No	EC Conditions
2.1	Considering that the project is located in a seismically sensitive and landslide-prone area, the Project Proponent shall adopt appropriate engineering designs and disaster risk reduction measures in accordance with the applicable Disaster Management Guidelines and relevant standards/guidelines issued by the competent authorities. A comprehensive Disaster Management Plan, including landslide and seismic risk mitigation measures, shall be implemented throughout the construction and operation phases. All measures suggested in the CEA guidelines in this regard be implemented.

S. No	EC Conditions
2.2	Landslide-prone areas within the study area shall be identified and suitably mapped using field investigations, remote sensing, and geotechnical assessments. A comprehensive Landslide Management Plan shall be prepared, incorporating appropriate slope stabilization measures such as bio-engineering techniques, retaining structures, drainage improvement, rock bolting, and afforestation with native species. The Plan shall also include pasture development, soil and moisture conservation measures, treatment of erosion-prone areas, stabilization of muck disposal sites, and restoration of degraded slopes to enhance slope stability and reduce erosion.
2.3	The Muck Transportation Plan shall be implemented and monitoring of trucks carrying muck shall be equipped with GPS Technology to ensure the effective monitoring of disposal of muck at designated site.
2.4	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. Muck disposal to be carried out during non-monsoon to avoid any disaster created by muck flow due to heavy rains. 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.
2.5	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.
2.6	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.

3. [C] Socio-economic:

S. No	EC Conditions
3.1	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.
3.2	It will be ensured that the water allocated for irrigation purpose is not being diverted at any point of time during the operation of Pumped Storage Project.
3.3	RO plant shall be installed in the project affected villages in the study area and the maintenance shall be done by the project Authorities.
3.4	Solar panel be provided to the families living in rural areas within 10 km radius of project.
3.5	School up to 12^{th} Standard shall be established to provide free quality education for children from Tribal villages.
3.6	50 bed multi-speciality hospital shall be established to cater the need of tribal population/locals. The

S. No	EC Conditions
	tribal population within 10 km radius of the project shall be given free of cost medical facility.
3.7	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 population.
3.8	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.
3.9	Bio-Gas plant shall be installed in the project affected villages in the study area for utilizing cattle waste (Cow Dung) into renewable source of fuel.
3.10	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.
3.11	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.
3.12	The commitments made during public hearing and socio-economic safeguards as suggested by the EAC shall be implemented in time bound manner.

4. [D] Miscellaneous:

S. No	EC Conditions
4.1	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.
4.2	A dedicated team to oversee environmental management activities (at project site) shall be set up comprising Environment Manager having post graduate qualification in Environmental Sciences/ Environment Engineering along with other supporting staff. The Environment Manager shall report to Project Head directly.
4.3	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.

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 and the Public Liability Insurance Act, 1991 along with their amendments and rules made there under and also any other orders passed by the Hon'ble Supreme Court of India/High Court and any other Court of Law relating to the subject matter.

Annexure - 2

Nivakane (Integrated) Pumped Storage Project (2700 MW) in an area of 361.82ha at Village Marathwadi, Tehsil Patan, District Satara, Maharashtra by M/s Adani Green Energy Limited.

The details of the project as per the information submitted by the Project Proponent are given below:

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

i. Nivakane (Integrated) Pumped Storage Project (2700 MW) in an area of 361.82 ha at Village Marathwadi, Tehsil Patan, District Satara, Maharashtra by M/s Adani Hydro Energy Five Limited.

ii. The project proposal was considered by the Expert Appraisal Committee (River Valley and Hydropower Projects) in its 48th meetings held on 26th-27th June 2023 and recommended for grant of Terms of Reference (ToRs) for the project for 2450 MW. The ToR has been issued by Ministry vide ToR Identification No.: TO23A0501MH5614127N dated 07.08.2023.

iii. Subsequently TOR was amended by MOEF&CC to enhance the capacity from 2450 MW to 2700 MW vide ToR Identification No.: TO25A0501MH5258876A dated 04.08.2025.

iv. The project is listed at S. No. **1 (c)** of the Schedule to the Environment Impact Assessment (EIA) Notification under category 'A' and are appraised at Central Level by Expert Appraisal Committee (EAC).

v. The geographical co-ordinate of the project Latitude 17°28'59.18"N N, Longitude 73°50'37.10"E (Upper Reservoir) and Latitude 17°28'41.11"N and Longitude 73°51'37.73"E (lower Reservoir).

vi. **Project Component::** The scheme envisages utilization of 309.00m rated head and total design discharge of 1125.52 cumec for generation of 2700 MW. The major project components are:

a 64.50 m high and 859.74 m long dam at the Upper Reservoir

b 5 nos. of diffuser-type upper intake/outlets

c 4 nos. of steel-lined pressure shafts (7 m dia., 491.316 m long) bifurcating into 8 nos. of unit pressure shafts (5 m dia., 597.99 m long); and 1 no. of steel-lined pressure shaft (5.3 m dia., 496.420 m long) bifurcating into 2 nos. of unit pressure shafts (3.75 m dia., 597.570 m long)

d Underground powerhouse: 235.0 m (L) × 25.0 m (W) × 56.0 m (H)

e 8 units of 300 MW and 2 units of 150 MW Francis reversible pump-turbines

f 8 nos. of concrete-lined unit TRTs (6.4 m dia., 46.16 m long) merging into 4 nos. of Main TRTs (9.5 m dia., 431.06 m long); and 2 nos. of unit TRTs (4.5 m dia., 46.30 m long) merging into 1 no. of main TRT (6.4 m dia., 434.77 m long)

g 78.50 m high and 714.29 m long dam at the Lower Reservoir

h 5 no. of diffuser-type lower intake/outlets and A Pothead Yard

vii. **Land requirement:** The total land requirement for the project works out to approximately 361.82 ha which is non-forest land. The project doesn't not involve diversion of any forest land.

viii. **Demographic details in 10 km radius of project area:**

The entire study area falls under Satara District. The project covers a total of 124 villages in the study area. Out of the 124 villages, 2 are located in Jaoli tehsil, 116 are located in Patan tehsil and 6 are located in Satara tehsil of Satara district.

As per Mission Antyodaya 2022-23, the total population in the study area is 105491, belonging to 26392 households, and the average family size is 3-4 members. Of the total population, male population is 52592 (49.8%) and female population is 52899 (50.1%). The sex ratio is 1006 females per 1,000 males, indicating that the female population is more than the male population.

According to Census 2011, the total percentage of Scheduled Tribe population in the study area is only 0.8% and total percentage of Scheduled Caste population in the study area is 8.7%. According to Census 2011, the literacy rate in the study area is 75.8%. The male literacy rate is 86.7%, and the female literacy rate is 65.4%, resulting in a gender gap of 21.3%. Among the workers, 83% are main workers, of which 64.4% are males and 35.5% are females, while 16.9% are marginal workers, of which 35.2% are males and 64.7% are

females. Among specific occupational categories, 54.3% are cultivators, of which males are 62.3% and females are 37.6%. Agricultural labourers account for 20.3%, which males are 38.6% and females are 61.3%. Household industrial workers represent 3.1% of the workforce, of which males are 50.9% and females are 49%. The other workers constitute 22.1% of the total, of which the proportion of males is 73%, while the proportion of females is 26.9%.

ix. **Water requirement:** One-time water will be pumped from nearby Chiteghar Dam Reservoir to the proposed lower reservoir and used cyclically for energy storage and discharge. One-time initial filling requirement has been worked out as 37.19 MCM (29.57MCM for PSP and 7.62 MCM for WRD/Irrigation); annual evaporation losses for PSP have been worked out as 1.60 MCM.

x. **Project Cost:** The estimated project cost is **Rs 14952.0 Crore**. Total capital cost earmarked towards Environment Management Plan is **Rs. 4555.09 lakh** and the Recurring cost will be about **Rs. 730.16 lakh** per annum (Rs. 4380.97 lakh for 6 years). While the Cost for implementation of CER Plan for local area development is **1897.00 lakh**.

xi. **Project Benefit:** Approx. 1200 persons will be engaged during construction phase. The project proposes to allocate Rs. 1897.00 Lakh towards CER (as per Ministry's OM dated 30th Sep 2020).

xii. **Environmental Sensitive area:** No project component falls in any notified protected area. The nearest protected areas to the project components are the Koyna Wildlife Sanctuary and the Sahyadri Tiger Reserve, located at an approximate distance of 0.15 km from the buffer zone of the Sahyadri Tiger Reserve with respect to the newly proposed components of the Nivakane (Integrated) Pumped Storage Project. Kera River is flowing at a distance of 100 m in north to south direction.

xiii. **MoU / any other clearance/ permission signed with State government:** Memorandum of Understanding (MOU) signed with the Government of Maharashtra on 03/09/2024 for the development of project.

xiv. **Resettlement and rehabilitation:** A total of 361.82 ha of private land is required for the proposed project. This land is owned by 346 families, all of whom are identified as project-affected families (PAFs), with an estimated 25 families expected to be displaced. The majority of the private land is rainfed and unirrigated. Most landowners are

anticipated to lose only a portion of their agricultural holdings, primarily for the construction of approach roads and pumping alignments, where only narrow strips of land will be required. The affected families from Nivakane village do not reside in the main village habitation but are settled in a hamlet known as Nivakane Aral. This hamlet is a rehabilitated colony established following the creation of the Shivsagar Reservoir, consequent to the construction of the Koyna Dam. The socio-economic profile of the residents indicates a primary dependence on agriculture for livelihood. The total private land proposed to be purchased through private negotiations for the Nivakane Pumped Storage Project which falls in rural areas is about 361.82 hectares only which is well within the prescribed limits as specified above and based on the provisions of RFCTLARR, 2013 and limits notified by the Government of Maharashtra as specified above as such the provisions relating to Rehabilitation and Resettlement are not applicable for the proposed Project.

xv. **Scheduled – I species:** As per Wildlife Protection Amendment Act, 2022, 14 mammals (Four-horned Antelope, Indian Bison/Gaur, Barking Deer, Sambar Deer, Indian Fox, Jackal, Grey Wolf, Common Leopard, Indian Grey Mongoose, Striped Hyena, Sloth Bear, Indian Pangolin, Bonnet Macaque and Porcupine); 2 bird (White-eye Buzzard and Indian Peafowl); and 6 herpetofauna (Bengal Monitor Lizard, Asian Chameleon, Indian Rat Snake, Indian Cobra, Chequered Keelback and Russel's Viper) species are listed as Schedule I species.

xvi. **Alternative Studies:** The major aspects considered for formulation of alternative layouts are as given below:

- Utilization of available head at project site to the maximum extent feasible
- Development of economical and optimized layout
- Ease of construction
- Minimal area of land acquisition to accommodate various project components.
- Avoid / minimize submergence of forest land.
- Avoid interference with existing / allotted schemes.
- Avoid location of project within Eco Sensitive Zones (ESZ) of existing Wildlife Sanctuaries.

Various technically feasible alternative layouts have been identified along the

Western Ghats mountain ranges near the project site. Based on review of available data, maps, it is found that the area is a home of **Sahyadri Tiger Reserve and Koyna Wildlife Sanctuar**y. However, keeping all these eco sensitivity in mind, the proposed PSP has been proposed completely outside the Tiger Reserve and Wildlife Sanctuary. The identified project has been designed in such a way that it can well utilize the head available between the upper reservoir, which is a natural basin, located at Kera River basin and lower reservoir proposed, which also a natural valley situated near Nivakane village.

A) RESERVOIR ALTERNATIVE STUDY

For preliminary screening of layouts, all schemes with gross head less than 100 m (techno-economically unviable) and greater than 700 m (since reversible pump turbine units are currently not available for such high heads) are not considered. Further, schemes with L/H ratio greater than 10 have also not been considered for further study (L - length of water conductor system and H - weighted average gross head). However, in the present screening of layouts, all the sites were found to be with gross head greater than 250 m and L/H less than 10. In all, there are a total of 6 schemes with various combinations of reservoirs (R-1 to R-9) and water conductor alignments and the combinations are discussed as schemes (Scheme-1 to Scheme-6).

Conclusion:

The region features a plateau bordered by a natural valley densely populated on the east and the Koyna reservoir to the west. Examination of available data and maps reveals that this area includes the Sahyadri Tiger Reserve and the Koyna Wildlife Sanctuary. The plateau is largely covered with wind turbines, making the construction of a reservoir at its summit unfeasible. Building a reservoir in the eastern natural valley would require significant resettlement due to the dense settlement there. Atop the plateau, there are three natural basins which is free of wind turbines. These basins currently envision Tarali Upper reservoir, as well as Koyna reservoir Alternatives III and V. Scheme V, however, is close to the reserve forest and has drawbacks like lower yield capacity and a longer dam length. Therefore, after careful consideration, Scheme III has been chosen for detailed studies.

B) WATER CONDUCTOR ALTERNATIVES

Conclusion: Alternate 1 has 1120 m length pressure shaft consisting of underground powerhouse. Both Alternate 2 and Alternate 3 has around 1320 m length with surface powerhouse. The main conclusion for choosing Alternate 1 was because of underground powerhouse. Open Pit powerhouse has huge slope pit excavation with slope height of around 150m which would create stability issues. Moreover, Alternate 1 has concrete lined TRT as compared to other alternatives.

The difference between Alternate 2 and Alternate 3 was that Alternate 2 has the pressure shaft on the surface whereas Alternate 3 has the pressure shaft underground. Both these alternatives irrespective of their cost, has surface pit powerhouse which shows the complex challenges including the stability issues of 150m high backslope.

C) DAM TYPE ALTERNATIVES

The layout finalized for this project involves construction of two dams i.e. upper dam 64.5 m high (above deepest bed level) and 859.74 m long and Lower dam – 78.5 m high (above deepest bed level) and 714.29 m long. The following points are considered for selection of the type of Dam.

a. Topographical setup
b. Geological and Foundation conditions
c. Availability of construction materials
d. Hydrological Aspects
e. Construction time

For upper and lower reservoir, these reservoirs are placed in a wide natural basin. The following dam types are studied for Upper and Lower reservoir.

I. Rockfill Dam with clay Core
II. Geomembrane faced rockfill Dam (GFRD)
III. Concrete Gravity Dam / Roller-Compacted Concrete Dam (RCC)

Conclusion:

Concrete Dam is ruled out as the foundation grade rock in upper and lower dam is 5m and 21m below NSL which requires a large quantity of concrete. For Rockfill dam, materials are easily available. A suitable site for spillway at right bank is also

available for both upper and lower dam. Since suitable clay is not available at nearby area therefore Geomembrane is suitable instead of clay to control seepage. Considering the merits & demerits of Rockfill dam with clay core, Geomembrane faced rockfill dam, Roller compacted Concrete Dam and Concrete Gravity Dam, the Geomembrane Faced Rockfill Dam, is techno-economically viable option and recommended for Upper as well as for Lower reservoir.

D) POWER HOUSE ALTERNATIVES

A powerhouse of a pumped storage project is different from a powerhouse of a conventional hydroelectric project, as it requires a deeper unit setting to facilitate pumping operation. Considering topographical and geological conditions, both Open Pit and Underground type powerhouses are suitable for this project. Two types of power houses are studied for this project, and details are provided below.

The open pit type powerhouse has been studied in alternate 2 and alternate 3 of the water conductor system. It was found that it required huge quantity of excavation. The cut slope height was around 150 m from NSL. The deep setting of powerhouse is due to submergence requirement of pump-turbine during the pumping water from lower reservoir to upper reservoir. The size of powerhouse is 285 m (L) x 25.0m (W), including service bay. The GIS building & Transformer will be placed on the downstream of powerhouse.

Conclusion

The challenges with the surface powerhouse design, including the unstable 150m high backslope, collectively indicate to the site's unsuitability for open-pit excavation. An underground powerhouse offers a great alternative by eliminating the problematic surface slopes, allowing for optimal hydraulic and geotechnical siting deep within competent rock. This approach ensures the stability of critical structures like the gate shaft, resolves overflow concerns, and ultimately provides a safer, more reliable, and efficient solution despite higher initial excavation costs, making it the justifiable choice given the severe limitations of a surface design at this location.

xvii. Baseline Environmental Scenario:

Period	December 2024-August 2025

AAQ parameters at 10 locations (Min. & Max.)

Core Zone

Parameter	Unit	Min	Max	Avg	Standards
$PM_{2.5}$	$\mu g/m^3$	8.20	12.80	10.50	60
PM_{10}	$\mu g/m^3$	18.40	29.80	24.10	100
SO_2	$\mu g/m^3$	6.00	11.80	8.90	80
NO_2	$\mu g/m^3$	7.20	13.10	10.15	80

Buffer Zone

Parameter	Unit	Min	Max	Avg	Standards
$PM_{2.5}$	$\mu g/m^3$	8.00	17.20	12.60	60
PM_{10}	$\mu g/m^3$	20.50	32.70	26.60	100
SO_2	$\mu g/m^3$	5.00	12.40	8.70	80
NO_2	$\mu g/m^3$	6.40	13.60	10.00	80

Incremental GLC Level

Core Zone

Criteria Pollutant	Unit	Baseline Concentration [A]	Predicted incremental value considering worst case stability class [B]	Total GLC [A]+[B]
PM_{10}	$\mu g/m^3$	25.60	38.40	64.00
$PM_{2.5}$	$\mu g/m^3$	12.80	15.36	28.16
SO_2	$\mu g/m^3$	10.60	15.9	26.5
NO_2	$\mu g/m^3$	12.50	25	37.5

Buffer Zone

Criteria Pollutant	Unit	Baseline Concentration [A]	Predicted incremental value	Total GLC [A]+[B]

			considering worst case stability class [B]	
PM_{10}	$\mu g/m^3$	32.70	0	32.7
$PM_{2.5}$	$\mu g/m^3$	17.20	0	17.2
SO_2	$\mu g/m^3$	12.40	0	12.4
NO_2	$\mu g/m^3$	13.60	0	13.6

River water samples (6 samples)

Core Zone

S. No.	Parameters	Min	Max	Standards
1	pH	7.2	7.87	8.5
2	Total Dissolved Solids, mg/L	22	84	0
3	Dissolved Oxygen (mg/l)	6.1	8.9	6
4	Chloride (as Cl), mg/L	4.6	7.5	0
5	Total Hardness (as CaCO3), mg/L	16.4	22.5	0
6	Biological Oxygen Demand (mg/l)	1.6	2.5	2
7	Chemical Oxygen Demand (mg/l)	4	5.2	0
8	Total Coliform (MPN/100 ml)	13	72	50

Buffer Zone

S. No.	Parameters	Min	Max	Standards
1	pH	6.97	7.48	8.5
2	Total Dissolved Solids, mg/L	11	43	0
3	Dissolved Oxygen (mg/l)	7	8.6	6
4	Chloride (as Cl), mg/L	3.1	10.3	0
5	Total Hardness (as CaCO3), mg/L	10	25.3	0
6	Biological Oxygen Demand (mg/l)	1.5	2.6	2
7	Chemical Oxygen Demand (mg/l)	3	6.2	0

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<tr><td>8</td><td>Total Coliform (MPN/100 ml)</td><td>15</td><td>81</td><td>50</td></tr>
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<tr><td>Pond water samples quality at -- locations</td><td>-</td></tr>
<tr><td>Ground Water samples at 10 locations</td><td>
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<tr><td colspan="6">Core Zone</td></tr>
<tr><td>S. No.</td><td>Parameters</td><td>Min</td><td>Max</td><td>Desired Limits</td><td>Permissible Limits</td></tr>
<tr><td>1</td><td>pH</td><td>6.52</td><td>7.9</td><td>6.5</td><td>8.5</td></tr>
<tr><td>2</td><td>Total Dissolved Solids, mg/L</td><td>34</td><td>241</td><td>500</td><td>2000</td></tr>
<tr><td>3</td><td>Chloride (as Cl), mg/L</td><td>13</td><td>59</td><td>250</td><td>1000</td></tr>
<tr><td>4</td><td>Total Hardness (as CaCO3), mg/L</td><td>83.7</td><td>166.3</td><td>200</td><td>600</td></tr>
<tr><td>5</td><td>Fluoride (as F), mg/L</td><td>0.07</td><td>0.35</td><td>1</td><td>1.5</td></tr>
<tr><td colspan="6">Buffer Zone</td></tr>
<tr><td>S. No.</td><td>Parameters</td><td>Min</td><td>Max</td><td>Desired Limits</td><td>Permissible Limits</td></tr>
<tr><td>1</td><td>pH</td><td>6.71</td><td>8.36</td><td>6.5</td><td>8.5</td></tr>
<tr><td>2</td><td>Total Dissolved Solids, mg/L</td><td>41</td><td>252</td><td>500</td><td>2000</td></tr>
<tr><td>3</td><td>Chloride (as Cl), mg/L</td><td>18</td><td>63</td><td>250</td><td>1000</td></tr>
<tr><td>4</td><td>Total Hardness (as CaCO3), mg/L</td><td>74.6</td><td>192.9</td><td>200</td><td>600</td></tr>
<tr><td>5</td><td>Fluoride (as F), mg/L</td><td>0.04</td><td>0.24</td><td>1</td><td>1.5</td></tr>
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Noise levels Leq (Day & Night) at 10 locations

Zone	Category	Leq Day dB(A)		Leq Night dB(A)		Prescribed Limits	
		From	To	From	To	Day	Night
Core	Residential	49.8	54.8	28.5	37.1	55	45
Buffer	Residential	50.8	56.2	31.2	38.3	55	45

Soil Quality at 10 Locations

Core Zone

S. No.	Parameters	Min	Max	Prescribed Limits
1	Calcium (mg/kg)	134	296	500
2	Magnesium (mg/kg)	63	219	500
3	Nitrogen (kg/ha)	226	330	500
4	Phosphorus (kg/ha)	6.2	9.2	50
5	Potassium (kg/ha)	211	453	500
6	Carbon (%)	0.52	0.86	1
7	Sodium Absorption Ratio	1.37	2.3	10
8	Salinity (ppt)	0	0	0.01

Buffer Zone

S. No.	Parameters	Min	Max	Prescribed Limits
1	Calcium (mg/kg)	37	173	500
2	Magnesium (mg/kg)	19	111	500
3	Nitrogen (kg/ha)	165	257	500
4	Phosphorus (kg/ha)	9.7	20.4	50
5	Potassium (kg/ha)	267	325	500
6	Carbon (%)	0.44	0.8	1
7	Sodium Absorption Ratio	1.09	3.66	10
8	Salinity (ppt)	0	0	0.01

Flora & Fauna

Schedule-I species observed in the study area:

As per Wildlife Protection Amendment Act, 2022, 14 mammals (Four-horned Antelope, Indian Bison/Gaur, Barking Deer, Sambar Deer, Indian Fox, Jackal, Grey Wolf, Common Leopard, Indian Grey Mongoose, Striped

	Hyena, Sloth Bear, Indian Pangolin, Bonnet Macaque and Porcupine); 2 bird (White-eye Buzzard and Indian Peafowl); and 6 herpetofauna (Bengal Monitor Lizard, Asian Chameleon, Indian Rat Snake, Indian Cobra, Chequered Keelback and Russel's Viper) species are listed as Schedule I species.

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

- Sanitation and Solid Waste Management Plan–Sanitation and Solid Waste Management Plan will be by providing adequate sanitation facilities, including a Sewage Treatment Plant (STP) for domestic wastewater treatment and solid waste composting machines for biodegradable waste management. Workers will be trained on waste segregation, collection, storage, transportation, and disposal. Recyclable waste will be sent to authorized recyclers, while residual waste will be disposed of at designated engineered landfill sites in accordance with applicable regulations. The landfill shall have impervious clay at the bottom-most layers. The second layer shall be impervious liner (Geomembrane), the third layer will be of sand, after that well-compacted solid waste is to be put over the sand, then again, a layer of clay, finally a layer of soil. Vegetation shall be grown on the topmost layers. It will give a good aesthetic view of the landfill**.**
- For Disposal of hazardous waste vendors authorized by State Pollution Control Committee shall be engaged.
- The construction activities of the project would generate muck from excavation of various project structures. The total quantity of 1,24,83,012 cum (3,22,111 cum and 1,21,60,901 cum) muck is likely to be generated from excavation for various components. However, after the utilization of 1,16,41,974.96 cum muck for different project components, the total quantity of muck to be disposed of works out to 82,01,999.84 cum. The entire excavated material is proposed to be dumped at three dumping sites identified over a combined area of 82.02 ha area with a total capacity of 82.02 lakh cum muck to be accommodated. The site will be fully rehabilitated and restored on completion of muck dumping.

xviv**. Public Hearing** : Public Hearing for the proposed project has been conducted by the State Pollution Control Committee on 18.02.2026 at Village Jawratwadi, Gram Bharsakhale, Nivakane–Marathwadi Road, Taluka Patan, District Satara. The main issues raised and replies by the user agency during the public hearing are:

Suggestions/ Comments Given by Stakeholders

S. No.	Name & Details of Questioner	Question / Concern Raised	Response by PP / EPHC
1	Hon'ble Chairman Environment Public Hearing Committee (Additional District Magistrate, Satara)	What is the Offstream Closed Loop System? What is Category A & B under EIA Notification and the difference between them? Also: Will river flow remain independent? How much water is needed for initial filling? How much water will be lost to evaporation? How much water will have to be taken from outside? Will the project impact floods during monsoon? Will water be pumped from the riverbed if the project runs out of water?	The proposed project is an 'off-stream closed loop' type. It envisages construction of two new reservoirs (Upper and Lower) connected through a water conductor system. Initial fill requirement is 29.57 MCM. Annual evaporation deficit is 1.60 MCM which will be filled from Sakhri-Chiteghar Dam. WRD requirement of 7.62 MCM will be stored in the lower reservoir and made available for irrigation throughout the year at no extra cost — a preliminary agreement has been reached with WRD. No external water will be required beyond these quantities.
2	Shri Bharat Patankar Senior	1. When you lift water from the lower dam using electricity and release it back down, there	There is an additional 20% electricity consumption during pumping, but there is no net loss

S. No.	Name & Details of Questioner	Question / Concern Raised	Response by PP / EPHC
	Environmentalist Satara District	will be water loss due to pipe friction and transmission losses. 2. The water from the lower dam will be lifted to upper dam and released back — it will remain in the system and not go to the downstream beneficiary/irrigation area. So how will downstream irrigation benefit? 3. There is no mention anywhere that 7.0/7.62 MCM water will be kept separately — demands written guarantee. 4. A joint meeting should be arranged with Project Management, Local Citizens, and Executive Director, Krishna Valley Development Corporation before locals will trust the project.	of water. The 7.62 MCM water will be kept aside separately as demanded by WRD/Government of Maharashtra. The project will require 24.0/29.57 MCM water total; 7.62 MCM will be kept aside. Project Proponent showed readiness to give a written guarantee that 7.62 MCM will be maintained separately.
3	Advocate Siddhesh Pawar Resident-Village Bhambavade, Taluka-Patan, District-Satara	1. The information and presentation in the EIA report made available to the public was different from the slides shown at the hearing — too many discrepancies. 2. Slides were not visible in the	a) Convener informed that Project Proponent will be instructed to provide information on the location of natural sources/small streams, gat numbers, whether they will flow into

S. No.	Name & Details of Questioner	Question / Concern Raised	Response by PP / EPHC
		presentation. Objections are based on the EIA report and he expects different answers accordingly. 3. If Project Proponents have conducted surveys in all seasons, why have they not found any natural springs? EIA report does not provide any information about natural springs. 4. Many things were not mentioned in the report — rehabilitation of Aarav village, not a single person has been rehabilitated. Government suggested increasing dam height so more land comes under irrigation — joint meeting of Project Proponent, local people and WRD Dept, Pune should be organized with prior notice. 5. Digging a tunnel here is dangerous — need a 'No Objection Certificate' from the organization that conducted the environmental study of Sahyadri Mountains.	the dam, and the distance of external water sources/small streams from the dam. b) Regarding Aarav village rehabilitation — though PP is not directly responsible, it is related to their initiative as the government suggested increasing dam height. A joint meeting of PP, local people and WRD Dept, Pune should be organized. c) Project is outside the wildlife corridor; wildlife corridor will not be destroyed. d) EIA Chapter 3 contains a complete list of animals and trees; no leopards were sighted during field surveys. e) PP stated that if the environmental consultant conducts surveys incorrectly and reports wrongly, their NABET approval will be revoked.

S. No.	Name & Details of Questioner	Question / Concern Raised	Response by PP / EPHC
		6. This is a wildlife corridor — leopards, bears, wild boars, bison are seen roaming. How did Forest Department give permission? A senior Forest Department officer should be invited to the joint meeting. 7. Natural Rehabilitation Policy gives public the right to ask questions about any project. Number of project-affected people should be kept to a minimum.	
4	Shri Janu Jore Residence-Javaratwadi Taluka-Patan, District-Satara	There is a reservoir on the lower side where Marathwadi and Jawaratwadi villages have water for agriculture throughout the year. Like the water storage scheme on the lower side, is there a water storage/reservoir on the upper side? Is there any plan to implement it there? What groundwater levels were found in the project area? Will the proposed project reduce or increase groundwater levels? Will there be any impact on wells and	First, electricity is needed to transport water from lower to upper water storage. That connection will have to be taken from the upper side. All water that comes up during monsoon will be released downstream. Water in the lower tank will be pumped up. Groundwater study has been conducted; it is mentioned in EIA report and EMP. Ground water sources are different in each area.

S. No.	Name & Details of Questioner	Question / Concern Raised	Response by PP / EPHC
		borewells in the area? What measures are planned?	
5	Shri Uday Shelke Residence-Javaratwaddi Village District-Satara	The answer given is for the monsoon season. But what will be done in the summer season?	If the Maharashtra Government has any plan for summer, we are ready to implement it. This project will continue in the summer as well, just as it runs during the monsoon.
6	One Villager (Name not mentioned)	Perennial agriculture and drinking water in Jawratwadi and Marathwadi are all dependent on water. Villager also raised an objection about water coming from Gat No. 94.	PP stated that they will not lift water from village drinking sources. In the project, water will be taken from the lower dam/tank to the upper dam with the help of electricity. PP assured to study the site and plan further measures regarding Gat No. 94.
7	Shri Bharat Patankar Senior Environmentalist (Second intervention)	You are giving wrong information. When you lift water from the lower dam with electricity and release it back, there will be water loss. Also, the water from the lower dam will be lifted to the upper dam using electricity and released down to the lower reservoir — there will be losses in transmission due to water hitting the pipe and friction. When village	The loss that occurs is in electricity. An additional 20% electricity is used while pumping. However, there is no loss of water. 7.0/7.62 MCM water will be kept as demanded by WRD. The project will require 24.0/29.57 MCM water; 7.62 MCM water will be kept aside.

S. No.	Name & Details of Questioner	Question / Concern Raised	Response by PP / EPHC
		people require water (after March/April), the question will arise: provide water for the project or for the people of the village? If you had a guarantee of water supply, it would not be possible to provide it to the downstream beneficiary area as it will affect downstream irrigation.	PP showed readiness to give a written guarantee.
8	Shri Babuji Bodke Jawali Taluka Dist-Satara	1. Population of Jawratwadi and Marathwadi villages is 1,500–2,000. In both villages, gat no. 1003 in Buchchaware and gat no. 103, 95, 92, 91 in village Divshe limits — there are water sources in the entire area. 2. In the company's layout, the company has acquired land in all these gat numbers — 80–90% of land in Jawratwadi and Marathwadi villages is being affected. There will be problems for agriculture and drinking water as well as for animals. 3. Get water free of cost for 12 months — a meeting will be held in both villages, and a discussion will be held on how much irrigated land will be acquired.	PP assured that natural water will be provided just as it is being received now, for 12 months. Regarding 157 farmers' rehabilitation — PP will follow up with the government on pending first rehabilitation. Farmers will be invited to joint meetings with government and company. PP stated: 'You can ask any questions or objections regarding the original plan to WRD — Water Resources Department. We can complete the original scheme only after we were told to do so by them.

S. No.	Name & Details of Questioner	Question / Concern Raised	Response by PP / EPHC
		4. A study should be conducted first to ensure tunnels being blasted do not obstruct or change direction of natural water sources/springs. 5. 157 farmers gave land to WRD from 1999–2010; none have been rehabilitated yet. Also, villagers of upper side gave land so that the lower part could be fertile — they gave land on condition it would be used only for agriculture. Now the dam is 25–30% complete and will have 28 MCM capacity (1 TMC) when complete.	We are ready to complete it free of cost for farmers whose lands were acquired. Please submit all suggestions to WRD — we will definitely resolve questions within our jurisdiction.'
9	Shri Sanjay Nikam Mharwand, District-Satara	1. The lower reservoir in Nivakane village is under the Minor Irrigation Department. For this, 301 families have given land; approximately 156 acres of land has been acquired. 2. The land given by government for displacement is 300 acres. However, neither rehabilitation nor any efforts have been made for the three villages. 3. Not a single person has got a job due to land acquisition. 4. Villagers of upper side gave	Chairman noted: Objections of Shri Sanjay Nikam and others have been noted that natural springs present in large numbers in the area where the Upper Reservoir is to be constructed will be destroyed. Therefore, if there is a shortage of water, water tankers will be required. Moreover, the Project Proponent should bear the cost of whatever measures are taken. Regarding landslides — PP

S. No.	Name & Details of Questioner	Question / Concern Raised	Response by PP / EPHC
		their land, so that the lower part/downside could be fertile. They gave the land on condition it would be used only for agriculture. 5. The wall being built to construct the Upper Reservoir will destroy the huge natural springs there. There are large numbers of natural springs in Upper and Lower Reservoir areas — they will be destroyed by excavation. 6. Therefore, the problem of drinking water will not be solved by project. We are getting only 7.0 MCM for agriculture. The Upper Reservoir does not come under WRD — so how will you provide water for drinking and agriculture to people living near the Upper Reservoir? 7. This is an earthquake-prone area and landslides occur many times. In 2017, landslides occurred on a large scale in Marwan and Aarav village areas — not mentioned anywhere in EIA report. Soil here is soft and rainfall more than 3,500 mm.	stated the company will also take note of this issue. The project has submitted a Reservoir Protection Treatment Plan. The CWPRS organisation of the Government of India gives advisory services for preventing landslides. No one can guarantee earthquakes won't occur, but it is mandatory to implement prior preventive measures against earthquakes and landslides as per CWPRS directives. PP informed Shri Nikam that whatever report he has, it should be made available and it will definitely be studied. PP stated: 'The study report that we had conducted should be made available, and it would definitely be considered.'

S. No.	Name & Details of Questioner	Question / Concern Raised	Response by PP / EPHC
10	Shri Pradeep Nikam Village Indol	The land that you are going to acquire for the dam in Marathwadi village should be shown with the gat numbers where there are natural water flows/small streams which were mentioned by Shri Babuji Bodke, and the gat numbers shown in the presentation. Also, Bhambe village has been completely irrigated without any expenditure. Villages near the upper tank are afraid that the natural source of water they get will be cut off due to this project, because after you build the dam, those natural springs will flow into your dam — they won't get the water they were getting till now.	Convener appealed to all local people/participants that whatever information they have regarding natural water flow/sources-small streams with gat numbers, if given in writing to Project Proponent, a report on the extent of impact on natural resources-streams can be obtained from Project Proponent and will be submitted with the minutes of the meeting. PP stated: 'This project will not have any impact on the water from their natural sources.'
11	Advocate Siddhesh Pawar (Second intervention) Bhambavade, Taluka-Patan, District-Satara	If Project Proponents have conducted surveys in all seasons, why have they not found any natural springs? EIA report does not provide any information about natural springs. There are discrepancies in the report. Also: (a) Many things not	a) Convener informed PP will be instructed to provide information on location of natural sources/small streams, gat numbers, and distance from the dam. b) Shri Bharat Patankar objected that many things were not mentioned — rehabilitation of

S. No.	Name & Details of Questioner	Question / Concern Raised	Response by PP / EPHC
		mentioned in report — rehabilitation of Aarav village; (b) Only geologists should be invited to meeting with KVDC Executive Director; (c) 'Horizontal barrage dams' — ancestral natural streams need to be protected; (d) This is a wildlife corridor — leopards, bears, wild boars, bison seen roaming. How did the Forest Department give permission?; (e) Wildlife from upper side forest will come down to the village once installations start; (f) National Rehabilitation Policy gives public the right to ask questions; (g) If 250 hectares of land is affected, Rehabilitation Act applies; (h) There is a village called Mandu in Shiralpethe — animals coming down is a risk.	Aarav village; not a single person there has been rehabilitated. c) PP stated though not directly responsible, a joint meeting of PP, local people and WRD Dept, Pune should be organized. d) Project is outside the wildlife corridor; wildlife corridor will not be destroyed by the project. e) EIA has complete list of animals and trees in Chapter 3.
12	Shri Babuji Bodke Jawali Taluka, Dist-Satara (Second intervention)	157 farmers gave land to Water Resources Department from 1999–2010. Till today, they have not been rehabilitated. Also, now that our land is gone for your project, our farmers here will become small landholders.	PP stated they will follow up with the government regarding the first rehabilitation that has not been completed. Farmers will also be invited to meetings with government and company.

S. No.	Name & Details of Questioner	Question / Concern Raised	Response by PP / EPHC
		Who will do the rehabilitation — the government or the company? Government did not acquire land of some farmers who were away from village. Therefore, their land remained in same gat number. Land should be made available to them in the new place as well. Government should take our land or the company should take our responsibility — all farmers of Jawratwadi are going to become small landholders.	At this time, one of the attendees expressed the opinion that until a positive decision is made on the above two issues, the company's other activities should be suspended.
13	Shri Bharat Jore Residence-Javratwadi Taluka-Patan, District-Satara	1. The issues raised are not being followed up properly. The next process should be undertaken only after following up and resolving the issue. 2. There is nothing written on the rehabilitation slide in the presentation — company has not taken any notice of rehabilitation. 3. It is also requested to the government not to take any further action until all documents and records of the heirs are made. 4. No document should be made in the name of the company (share	PP stated that no injustice will be done to anyone. Rehabilitation will have to be done along with the government. Follow-up will be done with the government. PP assured that everyone would be given a fair price. Mr. Bharat Jore and others present demanded that the company should sit face to face with farmers to discuss the fair price. PP assured all land purchases

S. No.	Name & Details of Questioner	Question / Concern Raised	Response by PP / EPHC
		certificate or power of attorney) until government and Adani Company find a solution — our ancestors were deceived in the windmill project. 5. Gat Nos. 94, 103, 92, 95 should be taken from those who give — those who do not give should not be forced.	will be transparent and directly from farmers without middlemen. Company Management will conduct transparent transactions.
14	Shri Babuji Bodke Jawali Taluka, Dist-Satara (Third intervention)	Company should directly negotiate with local farmers instead of buying land from outside agents. There should be no middlemen — purchase should be made directly from the farmers.	PP said that the suggestions made by him are very appropriate and will be strictly followed. Company Management will conduct transparent transactions.
15	Shri Bharat Jore (Second intervention)	Demanded that until rehabilitation and direct farmer purchase issues are resolved, work of project should not be started. Also: the company and the government should give prior notice and time to make their purchases. There is a lot of account frauds happening here.	PP stated no injustice will be done to anyone. Rehabilitation will be done with the government. Follow-up will be done with the government. Convener, EPHC, appealed that the meeting is an environmental meeting regarding the proposed project. Suggestions and objections related to the environment should be raised.
16	Shri Sharad Yadav	Question No. 1: Project Proponent will provide drinking water and	PP said that the responsibility of providing water for agriculture

S. No.	Name & Details of Questioner	Question / Concern Raised	Response by PP / EPHC
	Gaon-Marathwadi Taluka-Patan, District-Satara	water for agriculture — will the company itself bear the cost or will it be collected from the farmers? Also demanded that company should give assurance in writing — when company officials come to the village, they should put the issue in writing to the local people.	lies with WRD — they also have to pay to WRD. However, the company has taken the responsibility of providing drinking water supply and will strictly follow it. PP stated that whatever social work needs to be done in the project area, the work will be done by taking the locals into confidence.
17	Shri Krushnath Yadav (Second intervention)	About 261 acres of our land — in fact more than that — agricultural land will be acquired in this project. We have a large number of trees preserved for hundreds of years. Many types of fruit trees, toran, karvande, even wild fruits are there. Therefore, even during monsoon, a large number of tourists come to our village for tourism — this provides employment to locals. Around 500 families in Jawratwadi and Marathwadi villages are earning at least Rs 15,000 from water and agriculture.	Convener, EPHC, appealed to register suggestions and objections only regarding the environment, stating that it was an environmental public hearing only. Chairman, EPHC, said that your point has been noted. All slides will be shown again as per discussions in the meeting. Opportunity will be given to speak.

S. No.	Name & Details of Questioner	Question / Concern Raised	Response by PP / EPHC
		If we are getting such a good income, we don't need this project. This project should not be forced on us. If the government intervenes and imposes the project on us, we will even commit self-immolation — we will not allow this project to happen here.	
18	Shri Maruti Pawar Bharsakhale, District-Satara	1. Bharsakhale village has also been mentioned — 90–95% of land of Bharsakhale village will be acquired due to this project. 2. Project Proponents are going to build a reverse pumping station underground. When the landslide happened two years ago, our road was closed for traffic for almost six months. If another landslide occurs, our road will be closed to traffic again — what is the alternative? 3. Our underground work will have an impact on the land. Due to our underground work, a landslide will definitely occur here. Can you guarantee that it will not happen? 4. Second question: Our natural water sources, springs, are going	PP replied that whenever the government grants any permission, it does so only after studying all the conditions, that is, the geology of the place. When work is going on inside the ground, its effect does not reach the surface. PP stated: 'Because our company also does tunnel work in the Himalayas. All precautions are taken. Apart from that, there are different solutions for everything.' Shri Maruti Pawar stated that until a guarantee is received, they will continue to oppose this project.

S. No.	Name & Details of Questioner	Question / Concern Raised	Response by PP / EPHC
		to be destroyed due to the construction of the project.	Regarding natural water sources — noted. PP stated natural water sources will be protected.
19	Shri Balasaheb Sakpal Residence-Savargar, District-Satara	1. The advertisement for the environmental public hearing was published in one Marathi and one English newspaper on January 17, 2026. It mentions the villages within a 10 km radius that would be affected — but Jawratwadi does not fall under project-affected village. 2. If we look at convenience of travel, all housing colonies come under Nivakane village limits — if this hearing had been in Nivakane village, it would have been convenient for everyone. Objection to the Jawratwadi public hearing venue. 3. You raised an issue that Irrigation Department will be given 7.0 MCM water from the downside R.L. Dam for storage — so what is the capacity of the R.L. Dam downside in MCL, and will you provide 7.0/7.62 MCM water from storage and return it by taking 7.0 MCL/7.62 MCM from	PP replied that the capacity of downside R.L. Dam is 7.24 MCL/7.62 MCM. We have not at all planned to come here. The Irrigation Department itself suggested that they would have to spend Rs 350 crore to build a new dam — so if we are going to build a dam, their demand was to increase its height and make 7.24 MCL/7.62 MCM water available for irrigation. Central Electricity Authority and the Central Water Commission are both departments of GoI — they give No-Objection approval to all dams. Mandatory to follow their directives. The 7.24 MCL/7.62 MCM water storage will be available to people for perennial use — confirmed. No part of the 7.62 MCM reservoir will be used for

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		the downside dam? 4. Whether the 7.24 MCL/7.62 MCM water storage that was said to be available to people of the village for perennial use will be used for power generation. 5. Shri Sakpal asked if any part of 7.24 MCL/7.62 MCM water reservoir will be used for your power generation. 6. The dam existing now is an earthen dam — while increasing the height, whether the entire foundation will be removed and a new one built or whether the height of the wall will be increased? 7. Whether there are other projects within the study area of 10 km radius of the project.	power generation — confirmed. All objections have been registered and noted.
20	Shri Bharat Patankar Sir (Third intervention)	Can we study such a big issue in two days and submit our suggestions and objections? You should extend the deadline to fifteen days.	After discussions, Convener, EPHC, declared that citizens can submit their written Say upto Monday, 23rd February, 2026.
21	Shri Sanjay Nikam Mharwand, District-Satara	He informed that the proposal for this project has been changed twice — changed to 2023 and then changed to 2025. A project of 2450	Convener, EPHC, informed that Project Proponent has to submit an application to obtain ToR from MoEF, Forest & Climate

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	(Second intervention)	MW and 2700 MW generation was prepared. Also: Revenue area in Nivakane — out of which there is a windmill project on 1,100 acres. Now 900 acres of land is being taken for the integrated PSP of Nivakane. That is, 2,000 acres of land is being taken from a single revenue area. Injustice is being done to the indigenous people here. So, is Nivakane the only revenue area for this project?	Change, GoI, New Delhi. After sanction of ToR, environment survey in the radius of 10 km project area is to be carried through NABET approved Environmental Consultant for preparation of EIA, which is a necessity before Environmental Public Hearing. After completion of EIA, Project Proponent submits application to Head Office, MPCB, Mumbai requesting to conduct Environment Public Hearing Meeting. As per directives issued under EIA Notification 2006, this Environment Public Hearing is conducted. Convener remarked that the objection raised is noted. It is requested all to raise suggestions/objections in respect of proposed project in environmental angle only.
22	Shri Chaitanya Harishchandra Dalvi Residence-	a) This Nivakane project is under the control of Krishna Valley Corporation. How was this public hearing on environmental issues	PP stated that WRD has given it to Adani for study by signing an MoU as per the rules.

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	Dumti, District-Satara	organized even though this project has not been transferred? This public hearing is illegal — because Irrigation Department has not transferred this project to Adani Green Energy till date. b) Rehabilitation first, then dam — 157 people are eligible for this. But the remaining 300 people have given their land for the Nivakane project. There is no policy regarding their rehabilitation. Then how is it transferred illegally to the Adani? c) They don't even know there is a village called Aarav — that village has a colony. This public hearing is illegal because when the documents regarding the said project were made available in the Gram Panchayat office, the Gram Panchayat had an election code of conduct at that time. Therefore, local people did not go to the Gram Panchayat office. No Davandi — Oral announcement on loud speakers — given.	PP replied that the project has been transferred to Adani Green Energy through an MoU. All participants demanded that if an MoU has been signed, it should be on the screen. Convener, EPHC, told participants that they could inspect all the documents at the Adani office. Chairman, EPHC, said this is a public hearing on environment. The objection that we have not signed an MoU has been noted. Participants can go to Project Proponent's office and check the MoU, check its terms and conditions and register written objections, which will be submitted to Government.
23	Shri Suraj Vinayak	1. If the government has signed an MoU with Adani Green Energy,	Convener informed that all documents have been made

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	Patankar Resident-Nivakane Chairman, Manjure Vikas Samiti	then it should be disclosed on what basis it was transferred. There must have been some issues before I came. 2. If Krishna Valley has transferred the said project to Adani Green Energy, then has Krishna Valley and the Maharashtra Government had any contract or discussion with project-affected and affected farmers? Then the terms and conditions contained in the MoU should be shown to everyone. 3. Demand to cancel this meeting as it is the right of the villagers to see the MoU. 4. Again demanded cancellation of meeting (multiple times) — our long-pending demands are not still resolved. Demands are pending at Revenue and Forest Departments. Work started in 2001 and still compensation not received.	available at Gram Panchayat Office. Shri Suraj Vinayak Patankar remarked that no frivolous answers be given. Chairman, EPHC, informed that Maharashtra Government has made a Memorandum of Understanding on 03-09-2024 in which name of Nivakane Project is mentioned. The MoU states: 'On receipt of Application from AGL, GOM-WRD will facilitate process of water allocation for the project for one time initial filling as well as annual consumption for the requirement.' Chairman informed that if anybody has any objections, they may send to GOM-WRD. All relevant documents were made available at Gram Panchayat offices. Chairman stated: The main purpose of this meeting is to take note of the suggestions,

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			views, criticisms, and objections raised by local, PAPs and submit them to the government.
24	Shri Jyotiba Ramchandra Bavane Sarpanch, Nivakane Taluke-Patan, District-Satara	1. His correspondence is of 2024. There is no mention anywhere about the terms and conditions imposed while transferring the relevant development projects, how much budget was spent, and how the problems of farmers and project victims will be resolved. 2. No agreement or project handover has been made — farmers would have received notices under Section 157 if that had happened. 3. Two issues most essential: (a) Record corrections of three villages of Mharwand, Nivakane, and Bharasakhale; (b) Issue of Nivakane Dam victims should be put on hold first, then public hearing on environment should be held again. 4. Sarpanch demanded that until records are corrected and Nivakane dam victims are	Chairman of Committee stated that two important issues raised now are record corrections and rehabilitation of Nivakane dam victims. It has been noted and the relevant departments will also be informed. It has been noted that a policy regarding the project should be decided only after that. Chairman stated: 'The chairman of the Committee said that he has given an explanation regarding the public hearing on the environment. Convener, while starting the public hearing, has said that this public hearing is only for recording your suggestions and objections. Also, Company Management is obligated to respond to all objections raised by you.'

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		rehabilitated, no villager will attend this meeting.	
25	Shri Chaitanya Harishchandra Dalvi Residence-Dumti, District-Satara (Second intervention)	I object again that the project is going to be built in Nivakane village itself. If Nivakane has not transferred the said project to Adani, then this public hearing on environmental issues is illegal. Rehabilitation first, then dam — 157 people are eligible. But the remaining 300 people have given their land for the Nivakane project. There is no policy regarding their rehabilitation. Then how is it transferred illegally to the Adani? Davandi — Oral announcement — not given. Hence, objections should be noted and again this Environment Public Hearing should be called.	Objection noted. Four villages will be affected and responsibility for civic amenities will need to be taken. This is an earthquake-prone area with high possibility of landslides. Natural resources — natural small streams — will be destroyed by digging tunnels. Chairman, EPHC, informed that objections of participants and remark that this meeting is illegal are also noted. Government will give further Order.
26	Shri Jyotiba Ramchandra Bavane Sarpanch, Grampanchayat-Nivakane	Two months ago, a meeting was held at the Satara Zilla Parishad office under Chairmanship of the Guardian Minister. The issue of project transfer to Adani was raised — Executive Engineer Shri	Chairman stated that the issues raised by the villagers regarding record corrections and rehabilitation of Nivakane dam victims have been noted. This matter will be conveyed to the

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	Taluka-Patan, District-Satara (Second intervention)	Shinde, Water Conservation Department replied that the project concerned has not been transferred to Adani project yet, but discussions are ongoing. Issues of dam-affected people not yet resolved. Local farmers told project will not be transferred to Adani until issues of project victims are resolved. Issue of Aarav village raised — no space for cattle grazing. If work starts, villagers will not be able to live there. If local water conservation department transfers it, on what terms and conditions? Those terms and conditions should be announced here — only then should public hearing of the project be conducted. Officials from all relevant departments — Water Conservation, Krishna Basin, Forest Dept, Rehabilitation,	government. Similarly, the concerned departments will also be informed in this regard.

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		Revenue, Environment, Patan Sub Divisional Officer, Tahsildar — should be present in that meeting.	
27	Person without telling name (Anonymous participant)	We, common people, have a request that a government employee in our Nivakane village has put someone else's name on our land. Our complaint is ongoing with Sub Divisional Office/Tahsildar. Adani's agent has taken the house opposite me. So my land should be given back to me. Sarpanch, Nivakane, demanded that this public hearing be cancelled, otherwise they will boycott this public hearing.	Convener, EPHC, appealed that this is an Environment Public Hearing regarding the proposed project for obtaining Environment Clearance. It does not mean that this project is approved. It is requested all to sit calmly. It is requested to raise suggestions/objections in respect of proposed project in environmental angle only.
28	Shri Suraj Vinayak Patankar Nivakane Villager, Chairman, Manjure Vikas Samiti (Third intervention)	Again demanded to show MoU on screen. He asked to give introduction of the company officer. Demanded again to cancel this meeting — it is right of the villagers to see the MoU.	PP informed that MoU will be made available by post. Convener of the Meeting informed that all the documents have been made available at Gram Panchayat Office. Chairman, EPHC, informed that Maharashtra Government has made MoU on 03-09-2024 in

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			which name of Nivakane Project is mentioned. [Text of MoU clause provided — see point 28 in minutes.]
29	Shri Jyotiba Ramchandra Bavane Sarpanch, Nivakane, Taluke-Patan, District-Satara (Third intervention)	His correspondence is of 2024. There is no mention anywhere about the terms and conditions imposed while transferring the relevant development projects, how much budget was spent, and how the problems of farmers and project victims will be resolved. No agreement or project handover has been made — farmers would have received notices under Section 157. The issue of Nivakane Dam victims should be put on hold. Only then should the public hearing be held again. There is no use in discussing the environment now.	Chairman of Committee clarified: 'I request everyone to ensure that the issues raised by us are valid and the issue under Section 157 has also been taken into consideration. If such final permission is not given by the State Government, then the project will not be implemented in future.' But this Environment Public Hearing is called as per EIA Notification, 2006 as per ToR granted to the project proponent. The other issues raised are also being noted. Chairman stated that two important issues are record corrections and rehabilitation of Nivakane dam victims. It has been noted and relevant departments will be informed.

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30	Shri Chaitanya Harishchandra Dalvi Residence-Dumti, District-Satara (Third intervention)	He raised objection that this Environment Public Hearing is arranged by the Government only. Government's policy is first rehabilitation followed by dam. The dam victims have not been rehabilitated for the last 25 years — if the dam has not been handed over to Adani, then this public hearing is illegal. Today's hearing should be cancelled and public hearing should be held again with officials of all concerned departments.	Chairman, EPHC, informed that your objection is noted and participants' remark that this meeting is illegal is also noted. Government will give further Order.
31	Shri Suraj Vinayak Patankar (Fourth intervention)	Again demanded to cancel this meeting — it is our Right. Villagers are of the opinion that this meeting should be cancelled. Our long pending demands are not still resolved. Demands are pending at Revenue and Forest Departments. Then how can issues of only Environment be thought? Work started in 2001 and still no compensation. Previous project is still in incomplete stage. Hence, we do not want this project. Don't impose this project on us —	Noted by Chairman. No specific counter-response beyond noting objections and informing that all will be submitted to government.

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		otherwise we will face strong opposition.	
32	Shri Sharad Yadav Village-Marathwadi Taluka-Patan, District-Satara (Second intervention)	Our demand is that the public hearing should be cancelled. Land is being bought from him by deceiving our naive farmers. This company has bought 70% of the project area. This should be considered.	Noted. Convener reminded that the meeting is an environmental hearing and environmental objections should be raised.
33	Shri Suraj Vinayak Patankar (Fifth intervention)	We don't even want the project. Maharashtra government should not force us. We don't want anything from you. If this project will end our existence, then why are you holding these public hearings? We don't want the project — I request the chairman and all the members of the committee. Many local people boycotted the meeting and left.	Noted by Chairman and Convener. No further counter-response — all noted for government submission.
34	Shri Mahesh Shelar Residence — Koyna Nagar	He sent written views to Maharashtra Pollution Control Board, Satara office: a) The organization that prepared the EIA report — in which month was it prepared?	Convener & Chairman, EPHC, directed Project Proponent to respond regarding landslides and natural water sources. Chairman, EPHC, asked

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		b) Are there any local rare plants in this area? Has a list been prepared? Is there any planning for their protection and conservation? c) Also, there is a wildlife corridor here — will it be destroyed by this project? Planning for that? d) Regarding slide no. 6 — A tunnel is going to be laid between the lower reservoir and upper reservoir. Objections raised: high possibility of increasing rate of landslides; water of natural springs and seeps here will be dried up. Steps for it. Also, four main villages are going to be affected — first the certificate should be provided, only then this public hearing should be organized. e) The organization that prepared the EIA report — in which month? Are there any local rare plants? Has list been prepared? Is there planning	whether PP has conducted a ground water study regarding water resources. Also, people say this is an earthquake-prone area — if a seismic zone study has been done, please provide information. Also, information should be provided on how to maintain structural stability. PP informed that a ground water study has been conducted and is mentioned in the EIA report as well as in the EMP in the presentation. Ground water sources are different in each area. PP replied: Project is outside the wildlife corridor — it will not be destroyed. PP responded: Survey was carried out from December 2024 to August 2025. EIA chapter contains a complete list of flora and fauna including conservation plan.

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		for protection and conservation? Will wildlife corridor be destroyed?	
35	Shri Babuji Bodke Jawali Taluka, District-Satara (Fourth intervention)	Appealed all participants that this meeting is called by Government. It is right for us to raise our objections — going out will not achieve anything. Our demands should also be known to the company management. However, please do not create confusion. 99% of the farmers in my village have become small landholders and we want to get some things from the government and the company. However, please present your suggestions peacefully.	No specific PP response — this was an appeal by Shri Bodke to other participants to remain calm.
36	Shri Balasaheb Sakpal Residence-Savargar, Dist-Satara (Second intervention)	He objected to issues in slide no. 2 of the presentation that the background of the project has not been explained. Slide no. 6 — 8.0 km down from here is the small Sakhri-Chiteghar dam. For the first filling, water will be brought from the upper dam. There is no mention of whether the water will be brought through a pipeline or tanker.	PP stated that the water wasted during the monsoon will be taken by pumping — laying 2–3 season pipes. The plan will not be implemented unless WRD approves it. Water can be taken only as per the plan approved by WRD. PP stated that whatever water is stored, it will be released. The Irrigation Department has

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		Shri Sakpal objected that this report was wrongly prepared because it is not possible to take water from Sakhri-Chiteghar. There is no information in the EIA Report regarding the new water reservoir that you are going to use. Shri Balasaheb Sakpal demanded that all reports on the additional water supply that you are going to provide, which villages are included in it, and how much water will be supplied, be made available to the locals. Also demanded: Reports on additional water supply, which villages included, how much water will be supplied — all should be made available to locals. The villagers of the above village have been repeatedly demanding that their perennial source of water, the springs, provide water for perennial agriculture. Project will pollute this water — has Project Proponent planned to provide	requested that farmers should benefit from it. WRD said they should implement their plan of storing 7.25 MCL/7.62 MCM water. PP stated a study will be conducted regarding water pollution. 'We have been repeatedly saying that there is no pollution due to the hydro project. Also, the water quality is checked daily and its report is submitted to Government daily.' PP: 'This project will not have any impact on the water from their natural sources.' PP stated soil testing of 10 villages has been done. Chairman noted soil testing of Bharasakhale and Nivakane is also necessary.

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		them with water from natural sources? Also: Four villages are going to be affected — soil testing has not been done for three of them.	
37	Shri Sharad Yadav Village-Marathwadi Taluka-Patan, District-Satara (Third intervention)	Mainly we are talking about the Marathwadi spring. Our spring is inside and a dam is going to be built here. The natural water source is going to go into the dam. So how will we get drinking water from that spring? Since it is an environmental issue, he is asking whether our natural source of water is there. He is not against the project, but what will you do if they want to drink water from the same spring?	PP stated: 'We will take responsibility for Marathwadi's drinking water. Since it is an environmental issue, we will make every effort to keep any natural water source intact from a technical perspective. We will also seek help for this.'
38	Shri Ajay Yadhav Marthwadi, Dist — Satara	I have no personal opposition to the project. We are supporting it with the belief that this project will benefit the state and the country. At the same time, the interests of the farmers should be protected. Can a tank be built there to draw water from a spring that is	PP stated: 'Whatever questions/objections you have, they will be answered in writing. Also, whatever social work needs to be done in the project area, the work will be done by taking the locals into confidence.'

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		underground? We have been drinking natural water till now — so we should get another natural source of water. Will the proposed project cause pollution? He asked, 'I have my own house 50 meters from the dam wall. What do you think of us?' Also, the Project Proponents should come to the ground level and do the work of the people.	
39	Shri Sharad Yadhav Village-Marathwadi, Taluka-Patan, Dist — Satara (Fourth intervention)	His village has 12 demands. At this time, some of the participants said that since there was a public hearing on the environment, questions should be asked about it. Also asked about seismic zone and structural stability measures.	Chairman instructed Project Proponent to inform about the seismic zone and whether any studies have been conducted on it, and to inform about measures he is going to take regarding structural stability. Also, if a Disaster Management Plan has been prepared for the project, information about it must be included in the EIA report. Information about the alert system for this should be included. PP replied that information

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			about the seismic zone is in the EIA report. PP was asked to provide information about emergency situation measures — he acknowledged and stated it would be provided.
40	Shri Balasaheb Sakpal Residence-Savargar, Dist — Satara (Third intervention) — Slide No. 6	Slide No. 6 — The report states that the Nivakane project is partially completed. This should be clarified. Also: whether there are other projects within the study area of 10 km radius of the project — they can be commissioned and we have objections to this. Even though the environmental consultant had collected various water samples during winter, pre-monsoon and monsoon, they were not collected in front of the local citizens — hence the report was prepared without collecting those samples. Four villages are going to be affected — soil testing has not been done for three of them.	PP stated that it has been mentioned as per the WRD report. They had built a 33 meter dam. However, the WRD plan has not been completed. The project was planned in 1999, but it has not been completed yet; the government requested it, so we got ready to complete. The EIA report does not mention the vision of the project. Member, EPHC, said that all issues raised should be given in writing — this EIA report is a draft, and issues will be included in the revised report. Convener noted the objection regarding water sample collection. Soil testing of 10 villages has been done — Chairman noted soil testing of

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			remaining villages (Bharasakhale and Nivakane) is also necessary.
41	Shri Sanjay Nikam (Third intervention)	Along with Niwakne Nivakane Dam, Sakhri-Chiteghar Dam has also come under this project.	PP stated: 'We will take it only for the first filling. WRD has not approved it yet.' One person asked: after the water passes through the evaporator, will water be taken from Sakhri-Chiteghar? PP replied they will take only 1.6 MCM.
42	Name not mentioned (Anonymous participant)	'You have been giving a presentation since morning. So which environmental consulting firm is it? Is it approved by the government?' Concerned person also said that they did not do the survey properly — birds and animals are here, people are afraid to go out during day time. There is a tiger reserve 0.5 km from this place — even at such a short distance, not a single leopard has been seen here. They have come here and conducted a survey or have prepared a report	Convener, EPHC, informed that as per EIA Notification 2006 issued by MoEF & CC, GoI, New Delhi only NABET approved Environmental Consultant can carry Environmental Survey and prepare EIA report. PP stated: 'If the environmental consultant conducts a wrong survey and reports incorrectly, their approval will be revoked.' Environmental Consultant said that the EIA report has a

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		by searching Google. There is no mention in the EIA report about the damage to animals and trees that will be caused by the development of the project. Is this agency fake? Has this report been prepared to suit the convenience of the Adani company?	complete list of animals and trees in Chapter 3. Not a single leopard was seen in it. Many locals are afraid to come here at night. How many locals have been included by this environmental consultant? No information about how the survey was conducted. Environmental Consultant said that the presentation did not provide complete information.
43	Chairman, EPHC (Direction to PP)	Directed Project Proponent to inform people regarding Methodology adopted while carrying the survey. This means they will be aware of the authenticity and criteria of the survey. Are the Adani officials competent enough? Are they allowed to accept that demand? Chairman, EPHC, while expressing his opinion, advised Project Proponent that people were skeptical about the project management in the meeting — this was because the project	For this, we should appoint a good person, give him a chance to talk to the people. However, make sure that the organization appointed will work transparently. If we maintain co-operation and public relations, people will co-operate on their own.

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		management's public relations were not good.	
44	Shri Bharat Patankar Sir (Fourth intervention)	People are protesting. I forced you to call a meeting with the Irrigation Department. They said that neither I nor the people present know that the CEO of the project answers. So we should give everyone a phone number.	PP stated: 'If the environmental consultant conducts a wrong survey and reports incorrectly, their approval will be revoked.'
45	Convener, EPHC	Said here that the issues presented are representative, but the EIA report contains complete information.	No direct PP response recorded — statement acknowledged.
46	Shri Mahesh Shelar Residence-Koynanagar (Second intervention)	a) He asked the organization that prepared the EIA report — in which month was it prepared? b) There is a wildlife corridor here — will it be destroyed by this project? Planning for that? c) It is written in the report that they found mongoose. But there are three species of mongoose here. Also, butterflies were found, but there are different species of butterflies here. Also, mammals may be of Schedule 1. d) Shri Shelar asked the question whether the locals here know which birds come in which season.	PP informed that survey is carried during the period from December 2024 to August 2025. PP replied that the project is outside the wildlife corridor. Therefore, the wildlife corridor will not be destroyed by the project. PP: A separate list is inserted in EIA report. Environmental Consultant said that the Ecological Chapter in the EIA report contains a complete list of butterflies. It also contains a list

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		Have you discussed this with them? Because the locals know more about the types of reptiles that come.	of all animals and birds. Also, a list of mammals that are included in Schedule 1 is given. Also, a conservation plan has been prepared in it. Shri Shelar asked the question whether the locals here know which birds come in which season. PP/EC: The locals know more about the types of reptiles that come. At this time, it was important to trust the locals. At this time, the environmental consultant said that while primary data was available during the survey, secondary data was generated by asking locals. Environmental Consultant said that a conservation plan has been prepared for the birds and animals here, as provided in the budget.
47	Old Person (Name did not mention)	Not during the day, but at night, all the animals are on the road here. Cows are seen, while leopards come to pick up dogs.	No specific PP response — noted for the record.

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48	Shri Sanjay Pawar Residence-Bharsakhale Taluka-Patan, Dist-Satara	My question is that Maharashtra Pollution Control Board says that the EIA report has been made available to all the Gram Panchayats. But the Gram Panchayats have not received the burden of proof yet. I have come from Mumbai for the public hearing. Have you given the Davandi — Oral information by loudspeakers with drums or orally informing local people by meeting with three-wheeler rickshaw? Also, if people come to do surveys, we will also co-operate — but if they are conducting surveys on our private land, they should also inform the landowner. For this, it is necessary to take permission from the landowner.	Convener of the meeting informed that the receipts of all Gram Panchayat Offices is available. PP stated that a list of all the people coming for the survey will be given to the Gram Panchayat office. The project officer will be available to contact everyone. Here Chairman of the Committee asked Project Proponent to make copy of EIA and Executive Summary in digital format. Executive Summary and Draft Plan should be informed of Wild Life Board.
49	Member, Environment Public Hearing Committee	Member, EPHC, informed that the main purpose of this Environment Public Hearing Meeting is to note the suggestions/objections of the people in respect of proposed project in environmental angle only. It will be included in the minutes of the meeting and will be	PP/EC noted all suggestions. PP committed to arrange Gram Sabhas and information sessions in local language (Marathi) at Gram Panchayat level. PP stated priority will be given to locals in the project and all information will be made

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		submitted to Government. The EIA report as prepared by Environment Consultant is made available at each Gram Panchayat and at notified offices of the State and Central government — this EIA report is a draft. Suggestions and objections as raised during the meeting will be noted and Final EIA report will be prepared. Member, EPHC, said that a committee of company officials should be sent to the Gram Panchayats in the project area and provide them with information about the proposed project in Marathi. It will help clear the confusion — for this, a request should be made to hold a Gram Sabha.	available at Gram Panchayat offices.
50	Shri Sanjay Pawar Residence- Bharsakhale Taluka-Patan, District-Satara	He said that Gram Panchayat should be asked to put up the information about its meeting on the notice board — because when asked at the Gram Panchayat office, they say they have no information.	Chairman assured that precautions would be taken in this regard.

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51	Name did not mention (Anonymous participant)	Company should provide information about which gat number will be used. Also, why is there such a huge gap between Adani's rate for land acquisition in other places and the rate here?	Chairman of the Committee remarked that there is no doubt that your ideas are good, but the project Proponents are buying the land through their private system.
52	Shri Balasaheb Sakpal (Fourth intervention)	It is to be informed that slides that the study of biodiversity has not included the locals in the survey. The photos included in it look like copy paste. We do not accept this report.	Convener of the Meeting informed that objections have been noted.
53	Shri Ramchandra Marathe Marathwadi Villager, Dist-Satara	This is our affected area. It will be completely converted into a public school. In 2005, the agriculture department registered the earthworks as a causeway. We have been cultivating this land for generations. The proposed project will destroy the natural wealth. Therefore, we oppose this project.	Convener informed that objection is noted.
54	Various environmental laws question (Participant — name not stated)	Various environmental laws have been passed since the Water Pollution (Prevention and Control) Act, 1974. Will the company comply with all those laws, various directives passed by the Central Pollution Control Board, New Delhi and the Maharashtra	PP stated: 'Everything will be done as per the guidelines. No illegal work will be done in the project. Even after getting the Environmental Clearance (EC), it has to be checked.' Convener informed that every

S. No.	Name & Details of Questioner	Question / Concern Raised	Response by PP / EPHC
		Pollution Control Board, Mumbai?	six months the government has to send a compliance report of the concerned company. If you have any complaint, you can send it to the District Collector and Maharashtra Pollution Control Board. It will be taken into consideration. After collecting various environmental samples, if found guilty, action is taken against company under the Environmental Act. Member of the Committee informed that after obtaining EC, company is granted Consent to Establish and Consent to Operate. All the terms and conditions are prescribed. If company violates it, then further action is initiated.
55	Shri Sharad Yadav Marathwadi, Taluka-Patan, Dist-Satara (Fifth intervention)	A dam is going to be built here. We are going to know that water is going to be released from the tunnel. Our stream is at 300–400 acres in area — no water will go in the stream. The lower side areas	PP stated: 'As per the WRD guidelines, we will not block the existing natural source. It has been given a spillway — it will be released downstream.'

S. No.	Name & Details of Questioner	Question / Concern Raised	Response by PP / EPHC
		where there are farms and orchards will not get any water.	
56	Shri Balasaheb Sakpal Residence-Savargar, Satara (Fifth intervention)	We have registered all the objections. Asked whether there are other projects within the study area of 10 km radius of the project — they can be commissioned and we have objections to this. Objected that even though environmental consultant had collected various water samples during winter, pre-monsoon and monsoon, they were not collected in front of the local citizens — hence the report was prepared without collecting those samples.	Convener said that the objection has been taken into account and noted.
57	Shri Bharat Patankar Sir (Fifth intervention)	When I look at the environmental management plan, I am reminded of the Tarali project. It remained only on paper. Not a single issue has been raised there — so people think the same will happen here.	Environmental Public Hearing Committee said that this issue will also be placed before the Hon'ble District Collector. The instructions and current status of the Tarali project, as well as the instructions in this project, will be reviewed. Chairman, EPHC, suggested that there should be transparency while purchasing

S. No.	Name & Details of Questioner	Question / Concern Raised	Response by PP / EPHC
			land for the project. Also, the phone numbers of the people who are looking after this work of the project Proponents should be made available to all the locals. Suggested that the project Proponents should implement it.
58	Shri Amol Shelke Residence-Kathewadi, Dist-Satara	In Marathwadi, we have sixteen and a half acres of land in Gat No. 92. Half of the land there has been illegally taken by a company. We do not want to sell the land — we want to repair it.	PP answered: 'I do not know anything about it. It should be given in writing. Chairman of the Committee informed that based on the discussions held in the meeting, the Sub Divisional Office has instructed the Tahsil office to take cognizance of the work of record correction by organizing a special camp.
59	Shri Balasaheb Sakpal Residence-Savargar, Dist-Satara (Sixth intervention)	The boundary of this project falls within an 'environmentally sensitive area'. The Koyna Sanctuary and the Sahyadri Tiger Reserve are a few meters away. I request that no project be carried out in this natural environment that would disturb the nature there.	PP replied: 'Priority will be given to locals in the project. We will make all the information available in the Gram Panchayat offices about how many people are needed in the project, how many people can be given jobs in which cadres. Priority will be

S. No.	Name & Details of Questioner	Question / Concern Raised	Response by PP / EPHC
		Many dams have been built in Patan taluka — land taken for windmills — if lands are to be taken, they should be taken on rent basis and returned after 40–50 years. Also, the suggestions and objections that have been received here should be answered in writing. The only wish is that this project should be cancelled, but the project-affected people should be given employment opportunities in the project according to their educational qualifications. For this, a notice should be posted in the Gram Panchayat offices of the affected village. Locals should be given permanent jobs with priority to local people.	given to local young boys and girls. Skill development programs will be undertaken in collaboration with locals. Also, keeping in mind the future employment needs, the scheme is being implemented with everyone in confidence regarding the education expenses and contracts of local youth.'
60	Shri Ramchandra Marathe Marathwadi Villager, Satara District	Marathwadi has number 16. There is land in the name of certain people. There is no name of the second brother. Therefore, it was kept as public land. However, the	No specific PP response recorded — noted for the record.

S. No.	Name & Details of Questioner	Question / Concern Raised	Response by PP / EPHC
	(Second intervention)	further decision should be taken after considering all the people.	
61	Advocate Sidesh Bapusaheb Pawar Residence-Bamburdre Taluka-Patan, District-Satara	I have an objection to the EIA report. We have blind faith in the environmental consultant we have appointed. Did he actually come to the site and work? How many days was the survey conducted in December 2024? It is not mentioned in it. Also, how many people did the environmental consultant come here for the survey? It was necessary to attach the certificate that the Government of India has approved for environmental consultants. The monitoring period is shown in the report from April 2025 to August 2025 — however, you have received the scoping approval after the monitoring period. The report states that the Nivakane project is partially completed — this should be clarified. Within 10 km — work of Tarli	Chairman, EPHC, instructed PP to inform about the seismic zone and measures for structural stability. If Disaster Management Plan has been prepared, it must be included in EIA report with alert system information. PP replied that information about the seismic zone is in the EIA report. PP stated objections will be responded to in writing — all issues will be addressed. Member, EPHC, said: 'You are raising very important issues. However, all of them should be given in writing. This EIA report is a draft. This is not a revised report. Your issues should be submitted in writing. They will be included in the revised report.'

S. No.	Name & Details of Questioner	Question / Concern Raised	Response by PP / EPHC
		project is going on but not mentioned in the report itself. Also, 5.0 km buffer zone has been mentioned in front of Koyna reservoir. Did the Forest Department give permission to conduct a survey there? We conducted a 10 km survey — that fact that we conducted a survey is objectionable. Next objection: Within 10 km. The work of Tarli project is going on but not mentioned in the report. Also: 5.0 km buffer zone mentioned in front of Koyna reservoir. Did Forest Dept give permission to conduct a survey there? Advocate Pawar raised the issue of meteorology — wind speed and temperature data provided, but information should be provided on when, where and by which device. Also, EIA report does not contain concrete information on biodiversity. Species of fish	Advocate Pawar raised the Tarli project — Member, EPHC, said they will inquire again about it and inform.

S. No.	Name & Details of Questioner	Question / Concern Raised	Response by PP / EPHC
		mentioned but which ones are not mentioned. Section 6.13 — Social Environment: 124 villages are within a 10 km radius — survey has been conducted there. The village where he lives has not been surveyed. Objection: This is a report prepared in the air conditioning cabin. Section 6.13 Population – Social Status: Your organization has not conducted a survey here — taken from the Census report of GoI. Advocate Pawar objected that such a mention was expected. Number 7 – Effects & Preventive Measures: Results were given and solutions were not stated. The report states 10,000 trees will be cut down — how was that assessed? Have those trees been tagged? No complete information about this.	

S. No.	Name & Details of Questioner	Question / Concern Raised	Response by PP / EPHC
		Rehabilitation — 346 families are to be rehabilitated. Of these, 25 families are listed as being displaced. Information is incomplete — no explanation as to whether the 25 families are from 4 villages or 25 from one village.	
62	Name did not mention (Anonymous participant)	The local language here is Marathi. However, the EIA report was made available in English. Due to this, the common people did not understand the disadvantages and benefits of the project. Therefore, the public hearing has been conducted in a wrong manner. There is opposition to this project.	No specific response recorded — noted. Chairman had previously directed PP to arrange Gram Sabhas and conduct information sessions in Marathi.
63	Shri Bharat Patankar Sir (Sixth intervention)	Despite the clause in the contract for the Tarli project, the Tarli management was dumping soil everywhere — after we protested, the soil was picked up. Participants have registered objections. This is a multi-sectoral project — they suggested that the village enclaves should be closed. We will not be able to build the	No specific counter-response — noted by Chairman.

S. No.	Name & Details of Questioner	Question / Concern Raised	Response by PP / EPHC
		project without meeting the objections.	
64	Member, Environment Public Hearing Committee (Closing directions)	Directed CEO of the Project that he knows this is a hydro-power project and is environmentally sensitive. However, the more public relations you keep regarding this, the more information you provide to the people in a language they can understand, the more the country will benefit. You are building a 2700 MW project — this is not a small project. People have doubts about the destruction of natural resources, land acquisition, and rehabilitation due to the proposed project. So, if possible, hold a meeting at the Gram Panchayat level and inform them about the project.	PP assured that any errors in the report and public relations would be corrected.

xvv. The salient features of the project are as under: -

Particulars	Description
Location	
Country	India

Particulars	Description
State	Maharashtra
District	Satara
Geographical Co-Ordinates	
Proposed Upper Reservoir	
Latitude	17°28'59.18"N
Longitude	73°50'37.10"E
Proposed Lower Reservoir	
Latitude	17°28'41.11"N
Longitude	73°51'37.73"E
Access to Project Site	
Airport	Pune Airport – 170 km from project site
Rail head	Satara (50km)
Road Terminal	Patan (15 km)
Port	Mumbai Port - 304 km from project site
Project	
Type	Off-stream Closed Loop Pumped Storage Project
Storage Capacity	16200 MWH
Rating	2700 MW
Peak Operation Duration	6.0 hours
Upper Reservoir	
Full Reservoir level (FRL)	EL 1068.00 m
Min. Draw Down Level (MDDL)	EL 1030.00 m
Top Level of Dam	EL 1072.50 m
Type of Dam	GFRD
Max. Height of Dam from deepest bed level	64.5 m
Length of Dam	859.74 m
Top width of the Dam	7.0 m
Live Storage	22.572 MCM

Particulars	Description	
Dead Storage	1.435 MCM	
Gross Storage	24.007 MCM	
Lower Reservoir		
Full Reservoir level (FRL)	EL 751.00 m	
Min. Draw Down Level (MDDL)	EL 713.00 m	
Top Level of Dam	EL 755.00 m	
Type of Dam	GFRD	
Max. Height of Dam from deepest bed level	78.50 m	
Dam Length	714.29 m	
Top width of the Dam	7.0 m	
Live Storage	30.542 MCM	
Dead Storage	5.552 MCM	
Gross Storage	36.093 MCM	
Approach Channel		
	Upper Reservoir	**Lower Reservoir**
Shape of Channel	Trapezoidal shape	Trapezoidal shape
Base Width	210.45 m	203.05 m
Bed Level	1004.5 m	690.5 m
Minimum Depth of Flow	20.0m	8.56m
Bed Slope	Mild	Mild
Upper Intake Structure		
Type	Diffuser Type	
Length of each Intake	69.325 m	
Elevation of Intake center line	EL 1009.00 m / EL 1008.15 m	
Elevation of Intake bottom	EL 1005.50 m	
Design Discharge of each Intake (Turbine mode)	250.12 cumec for Large Intake and 125.06 cumec for Small Intake	
Trash rack type	Vertical (90^0 to horizontal)	

Particulars	Description
Size of Trash Rack	For Large Intake - 4 nos. of 7.20 m (W) x 12.0 m (H) for each trash rack For Small Intake - 3 nos. of 7.20 m (W) x 8.00 m (H)
Numbers & Size of Intake Service Gate	4 nos. of 8.8 m (W) x 7.00 m (H) 1 nos. of 6.6 m (W) x 5.30 m (H)
Penstock /Pressure Shafts	
Type	Finished steel lined - circular
Number of Penstock/ Pressure Shaft	Total 5 No. of Independent Penstock/ Pressure Shaft bifurcating into 10 pressure tunnels
Diameter of Horizontal Pressure Tunnel	4 no. of 7m dia. & 1 no. of 5m dia.
Diameter of unit Pressure Tunnel	8 no. of 5m dia. & 2 no. of 3.75m dia.
Length of Penstock / Pressure Shaft	**Total Length for 300 MW is 1088.31 m**. (Up to bifurcation 491.316 m + Length after bifurcation to Powerhouse 597.99 m) **Total Length for 150 MW is 1094.00 m.** (Up to bifurcation 496.420 m + Length after bifurcation to Powerhouse 597.570 m)
Max. Discharge of each Penstock/ Pressure Shaft	250.12 cumec/ 125.06 cumec
Max. Discharge of each unit Pressure Tunnel	125.06 cumec / 62.53 cumec
Maximum velocity in the Penstock / Pressure shaft	6.50 m/sec
Maximum velocity in the Unit Pressure Tunnel	6.37 m/sec
Powerhouse	
Type	Underground Type Powerhouse
Centre line of Unit	EL 672.0 m

Particulars	Description
Dimensions (Excluding service bay)	235.0 m (L) x 25.0 m (W)
Size of Service Bay	50 m (L) x 25.0 m (W)
Service Bay Level	EL 687.7 m
Tail Race Tunnel	
Type	Concrete Lined
Number of Tunnels	4 Nos of TRT of 9.5m dia. 1 No of TRT of 6.4m dia.
Diameter of Main Tunnel	9.5 m / 6.4 m
Diameter of unit TRT	6.4 m / 4.5 m
Length of the Tunnel	431.06 m / 434.77 m
Max. Discharge for Main TRT	212.51 cumec / 106.26 cumec
Max. Discharge for Unit TRT	106.26 cumec / 53.13 cumec
Tailrace Outlet	
Type	Diffuser Type
Length of each Outlet	66.81 m
Elevation of outlet center line	EL 696.00 m / EL. 694.45m
Elevation of Outlet bottom	EL + 691.25 m
Trash rack Type	Vertical (90^0 with horizontal)
Size of Trash rack	For Larger Intake - 4 sets of 5.2 (W) x 14.25 m (H) for each intake For Smaller Intake - 3 sets of 5.10 (W) x 9.6m (H)
Tailrace outlet Service Gate	4 nos. of 9.50 m (W) x 7.00 m (H) and 1 nos. of 6.40 m (W) x 6.40 m (H)
MAT and Adits Lengths	
MAT	982.00 m
Adit - 1	387.00 m
Adit – 2	574.00 m
Adit – 3	732.27 m

Particulars	Description
Adit – 4	160.20 m
Adit – 5	235.45 m
Adit – 6	656.00 m
Escape Tunnel	53.60 m
CVT/ Escape Tunnel	290.00 m
Electro-Mechanical Equipment	
Pump Turbine	Francis type, vertical shaft reversible pump-turbine
Total No of units	10 nos. (8 X 300 MW + 2 X 150 MW), 2700 MW
300 MW Turbines	
Total No of units	8 Nos
Turbine Design Discharge	110.41 cumec
Rated Net Head in Turbine Mode	309 m
Pump Capacity	330 MW
Design Discharge for pump	95.40 cumec
Rated Net Head in pump mode	323 m
Synchronous Speed	250.0 rpm
150 MW Turbines	
Total No of units	2 Nos
Turbine Design Discharge	55.21 cumec
Rated Net Head in Turbine Mode	309 m
Pump Capacity	165 MW
Design Discharge for pump	47.70 cumec
Rated Net Head in pump mode	323 m
Synchronous Speed	375.0 RPM
Total Design Discharge for Turbine (8+2 Units)	993.69 cumec
Total Design Discharge for pump (8+2 Units)	858.60 cumec
Generator-Motor	

Particulars	Description
Type	Three (3) phases, alternating current synchronous generator motor semi umbrella type with vertical shaft
Number of units	10 Units (8 x 300 MW + 2 X 150 MW)
Rated Capacity for 300 MW units	Generator – 300 MW Pump Input – 330 MW
Rated Capacity for 150 MW units	Generator – 150 MW Pump Input – 165 MW
Rated Voltage	18.0 kV
Main Power Transformer	
Type	Single-Phase Power transformers with OCTC
Number of units for 300 MW	25 units (3 nos. per unit & 1 no. spare)
Rated Capacity for each unit for 300 MW Units	118 MVA
Number of units for 150 MW	7 units (3 nos. per unit & 1 no. spare)
Rated Capacity for each unit for 150 MW Units	60 MVA
Rated Voltage	Primary – 18.0 kV; Secondary - 400 kV adjustable range of the secondary voltage: ±10% in steps of 1.25%
420 KV Gas Insulated Switchgear	
Type of GIS	Indoor Type
No. of GIS units	1 No.
Location	Inside transformer cavern
Scheme	Double Busbar Arrangement with bus Coupler
Pothead Yard	
Type	Outdoor
Size	60 m (L) x 45 m (W)
Power Evacuation	
Voltage Level (kV)	400 kV

Particulars	Description
No. of Transmission Lines	One double circuit transmission line
Conductor	Hexa Bersimis
Total Length	One 400 kV Double Circuit Transmission Line of length 77 km (approx.) from PSP Pot Head Yard will be connected to 765/400KV Pune III (GIS) substation at Village Rajapur, District Pune in the state of Maharashtra for evacuation of stored power during generating mode and for supply of power during pumping mode.

Project details:

Name of the Proposal	Nivakane (Integrated) Pumped Storage Project (2700 MW)
Proposal No.	IA/MH/RIV/580995/2026
Location (Including Coordinates)	The upper dam is located on a basin shape hill near Marathwadi village, and the lower dam is located near Nivakane village in Patan tehsil, Satara district of Maharashtra state. Upper Reservoir: Latitude 17°28'59.18"N and Longitude 73°50'37.10"E Lower Reservoir: Latitude 17°28'41.11"N and Longitude 73°51'37.73"E.
Company's Name	M/s Adani Green Energy Limited
CIN no. of Company/user agency	U40106GJ2015PLC082007

Accredited Consultant and certificate no.	Name: R S Envirolink Technologies Pvt. Ltd. Certificate No.: NABET/EIA/25-28/RA 0415
Project location (Coordinates /River/ Reservoir)	The upper dam is located on a basin shape hill near Marathwadi village, and the lower dam is located near Nivakane village in Patan tehsil, Satara district of Maharashtra state. Upper Reservoir: Latitude 17°28'59.18"N and Longitude 73°50'37.10"E Lower Reservoir: Latitude 17°28'41.11"N and Longitude 73°51'37.73"E. The initial reservoir filling of the proposed Lower Reservoir will be done through pumping water from the existing Chiteghar Reservoir.
Inter- state issue involved	No
Proposed on River/ Reservoir	Water for initial filling will be lifted from the Chiteghar Reservoir.
Type of Hydro-electric project	Off-stream Closed Loop Pumped Storage Project
Seismic zone	IV

Category details:

Category of the project	A
Capacity / Cultural command area	2700 MW

(CCA)	
Attracts the General Conditions (Yes/No)	Yes
Additional information (if any)	-

ToR/EC Details:

ToR Proposal No.	• IA/UP/RIV/472012/2024 (Fresh TOR) • IA/UP/RIV/525467/2025 (Transfer of TOR)
EAC meeting date	18-19th July 2024 (Scoping Clearance)
ToR Letter No.	• TOR Identification No.: TO23A0501MH5614127N (Fresh TOR) • TOR Identification No.: TO25A0501MH5258876A (Amendment in TOR)
ToR grant Date	• 07.08.2023 (Fresh TOR) • 04.08.2025 (Amendment in TOR)
Cost of project	Rs. 14952.0 Crore
Total area of Project	361.82 Ha
Height of Dam from River Bed (EL)	• Upper Dam: 64.5 m (GFRD) • Lower Dam: 78.5m (GFRD)
Details of submergence area	• Upper Reservoir: 24.007 Mm^3 Gross Storage at FRL • Lower Reservoir: 36.093 Mm^3 Gross Storage at FRL
District to provide irrigation facility (if applicable)	NA

Details of tunnels on upper level & lower level and length of canal (if applicable)	Total 5 No. of Independent Finished steel lined (circular) Penstock/ Pressure Shaft bifurcating into 10 pressure tunnels • Horizontal Pressure Tunnel - 4 no. of 7m dia. & 1 no. of 5m dia. • Unit Pressure Tunnel - 8 no. of 5m dia. & 2 no. of 3.75m dia. • **Total Length for 300 MW is 1088.31 m**. (Up to bifurcation 491.316 m + Length after bifurcation to Powerhouse 597.99 m) • **Total Length for 150 MW is 1094.00 m.** (Up to bifurcation 496.420 m + Length after bifurcation to Powerhouse 597.570 m)
No. of affected Village	Four (4): Nivakane, Marathwadi, Bharsakhale and Mharwand of Patan Tehsil, Satara District, Maharashtra
No. of Affected Families	346
Project Benefits	**Social Benefits** In addition to power generation benefits, the proposed Nivakane (Integrated) PSP will create a dedicated irrigation water storage of 7.62 MCM in the lower reservoir. The lower dam has been strategically shifted downstream to enhance the storage capacity specifically for irrigation purposes. This assumes greater significance considering that the existing irrigation dam in the area has remained under construction for decades and has not yet been able to achieve comparable live storage. The proposed project will therefore provide a substantial ancillary benefit to the region by ensuring assured water availability for irrigation, improving

	agricultural sustainability, and supporting local water resource management in addition to clean energy generation. **Financial Benefits** The levelized cost of generation of the project has been found to be Rs 5.93/kWh considering cost of pumping @ Rs 2.50/kWh. Nivakane (Integrated) pumped storage project is a technically feasible project and will be beneficial in meeting the peaking requirement of energy during evening/night in the beneficiary state i.e. Maharashtra.
R&R details	A total of 361.82 ha of private land is required for the proposed project. This land is owned by 346 families, all of whom are identified as project-affected families (PAFs), with an estimated 25 families expected to be displaced. The majority of the private land is rainfed and unirrigated. Most landowners are anticipated to lose only a portion of their agricultural holdings, primarily for the construction of approach roads and pumping alignments, where only narrow strips of land will be required. The affected families from Nivakane village do not reside in the main village habitation but are settled in a hamlet known as Nivakane Aral. This hamlet is a rehabilitated colony established following the creation of the Shivsagar Reservoir, consequent to the construction of the Koyna Dam. The socio-economic profile of the residents indicates a primary dependence on agriculture for livelihood.

	The total private land proposed to be purchased through private negotiations for the Nivakane Pumped Storage Project which falls in rural areas is about 361.82 hectares only which is well within the prescribed limits as specified above and based on the provisions of RFCTLARR, 2013 and limits notified by the Government of Maharashtra as specified above as such the provisions relating to Rehabilitation and Resettlement are not applicable for the proposed Project.
Catchment area/ Command area	The combined catchment area of upper and lower reservoirs of Nivakane (Integrated) PSP works out as 16.72 sq. km (2.25 sq. km + 14.47 sq. km).
Types of Waste and quantity of generation during construction/ Operation	• Muck during construction – 82.02 lakh cum (to be disposed) • Municipal Solid Waste during construction - Degradable (315 Kg/day for 1200 persons), Non degradable (135 Kg/day for 1200 persons)
Material used for blasting and its composition as per DGMS standards.	One magazine of 550 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 lower dam area. Movement of van should be done with armed guards and proper documentation recommended by PESO.
E-Flows for the Project	As the proposed PSP is an integrated project with an irrigation component, 7.62 MCM of water required for the WRD/Irrigation scheme will be sourced from the catchment yield during the monsoon To support the livelihoods of the lower riparian community, the

	remaining available water will be released downstream. Gated spillways and bottom outlets are planned for both reservoirs to enable controlled release of catchment flows from nearby nallahs and streams.
Is Projects earlier studied in Cumulative Impact assessment & Carrying Capacity 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.	No
Details on provision of fish pass	The project is an off-stream closed loop pumped storage scheme. Water for initial filling will be lifted from the Chiteghar Dam reservoir to the proposed lower reservoir and used cyclically for energy storage and discharge. Both the proposed upper and lower reservoirs are artificial reservoirs and are not located on any active streams.
Project benefit including employment details (no of employee)	About 1200 workers (labour and staff) would be engaged during the peak construction period, out of which 350 people will be engaged permanently and about 850 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 people will be required for the operation of the project.
Area of Compensatory Afforestation (CA) with tentative no of plantation.	The project doesn't not involve diversion of any forest land, therefore requirement of preparation of Compensatory Afforestation Plan is not applicable in the present case.
Previous EC details	-
EC Compliance Report by R.O, MOEF&CC	-
No. of trees/saplings proposed in view of 'Ek Ped Maa Ke Naam' campaign	500

Electricity generation capacity:

Powerhouse Installed Capacity	2700 MW
Generation of Electricity Annually	5617.35 MU
No. of Units	10 8 X 300 MW & 2 X 150 MW)

Muck Management Details:

No. of proposed disposal area/ (type of land- Forest/Pvt land)	The construction activities of the project would generate muck from excavation of various project structures. The total quantity of 1,24,83,012 cum

	(3,22,111 cum and 1,21,60,901 cum) muck is likely to be generated from excavation for various components. However, after the utilization of 1,16,41,974.96 cum muck for different project components, the total quantity of muck to be disposed of works out to 82,01,999.84 cum. The entire excavated material is proposed to be dumped at three dumping sites identified over a combined area of 82.02 ha area with a total capacity of 82.02 lakh cum muck to be accommodated. The site will be fully rehabilitated and restored on completion of muck dumping.
Cross section of proposed muck area, Height of muck with slope.	Attached as Appendix I
Distance of muck disposal area (location), from muck generation sources (project area)/River, HFL of proposed muck disposal area.	500 m from Muck Generation Source. 1500 m from HFL of Kera river
Total Muck Disposal Area	-
Estimate Muck to be generated	82.02 lakh cum (to be disposed off)
Transportation	The excavated muck will be transported in dumper trucks, securely covered with heavy-duty tarpaulin in line with international best practices. Adequate precautionary measures will be implemented during muck transportation and disposal. All dumpers will be regularly maintained to prevent spillage of loose soil.

	Haul roads will be periodically wetted using sprinklers before dumper movement to minimize dust emissions. Dumping activities will be restricted during high wind conditions to control suspended particulate matter (SPM) levels, and also avoided during heavy traffic periods. After disposal, the muck surface will be watered with sprinklers and compacted to control dust and enhance stability.
Monitoring mechanism for Muck Disposal Transportation	The provisions of Monitoring have been kept under proposed Environmental Monitoring Plan.

Land Area Breakup:

Private land	361.82 ha
Government land	0.00
Forest Land	0.00 ha
Total Land	361.82 ha
Submergence area/Reservoir area	215.48 ha (upper and lower reservoirs)

Presence of Environmentally Sensitive areas in the study area

Forest Land/ Protected Area/ Environmental Sensitivity Zone	**Yes/ No**	**Details of Certificate/ letter/ Remarks**

Reserve Forest/ Protected Forest Land	No	No project component falls in any notified protected area. The nearest protected areas to the project components are the Koyna Wildlife Sanctuary and the Sahyadri Tiger Reserve, located at an approximate distance of 0.15 km from the buffer zone of the Sahyadri Tiger Reserve with respect to the newly proposed components of the Nivakane (Integrated) Pumped Storage Project
National Park	No	
Wildlife Sanctuary	Yes	
Archaeological sites monuments/ historical temples etc.	No	

Availability of Schedule-I species in study area:

As per Wildlife Protection Amendment Act, 2022, 14 mammals (Four-horned Antelope, Indian Bison/Gaur, Barking Deer, Sambar Deer, Indian Fox, Jackal, Grey Wolf, Common Leopard, Indian Grey Mongoose, Striped Hyena, Sloth Bear, Indian Pangolin, Bonnet Macaque and Porcupine); 2 bird (White-eye Buzzard and Indian Peafowl); and 6 herpetofauna (Bengal Monitor Lizard, Asian Chameleon, Indian Rat Snake, Indian Cobra, Chequered Keelback and Russel's Viper) species are listed as Schedule I species.

Public Hearing (PH) Details

Advertisement for PH with date	**State level Marathi and English newspaper dated 17.01.2026**
Date of PH	18/02/2026
Venue	Village Jawratwadi, Gram Bharsakhale, Nivakane–Marathwadi Road, Taluka Patan, District Satara

Chaired by	Additional District Magistrate, District Satara
Main issues raised during PH	• Concern regarding non-inclusion of nearby ongoing projects and associated cumulative environmental impacts in the EIA study. • Concerns raised on estimation of tree felling, methodology adopted for vegetation assessment, and lack of species-wise inventory details. • Allegations of under-reporting of wildlife, including leopard sightings and Schedule-I species, and concerns regarding adequacy of biodiversity surveys. • Objections regarding adequacy of socio-economic surveys, village coverage, and reliance on secondary census data. • Concerns raised regarding inadequate documentation and assessment of natural springs within the project area. • Clarification sought on project-affected families, rehabilitation and resettlement provisions, and village-wise impact assessment. • Demands Water Supply* Land, Rehabilitation & Resettlement* Employment & Livelihoods* Skill Development & Training* Agriculture* Infrastructure & Road Connectivity* Environment & Forest Protection* Disaster Management & Safety* Community Engagement & Information* Grievance Redressal, Legal Compliance • Issues raised regarding, geological hazards, seismic considerations, and disaster management measures. • Questions raised on the monitoring period, survey methodology, survey duration, manpower deployment, and procedural aspects of baseline data collection.

	Complete issues raised during PH and clarification given by Project Proponent are attached as **Appendix II**.
No. of people attended	147

Brief of base line Environment:

Particulars	**Details**		
Period of baseline data collection/Sampling period.	**Monsoon**	**Winter**	**Pre-Monsoon**
Soil	December 2024	April 2025	August 2025
Air Environment	December 2024-January 2025	April-May 2025	July-September 2025
Noise & Traffic	December 2024	April 2025	August 2025
Water Quality	December 2024	April 2025	August 2025
Vegetation	December 2024	April 2025	August 2025
Faunal	December 2024	April 2025	August 2025
Socio-economic	December 2024	April 2025	August 2025

Brief description on hydrology and water assessment as per the approved Pre-DPR:	The proposed project is an off-stream, closed-loop scheme comprising two reservoirs, both situated across minor rivulets draining into the Kera River, a tributary of the Koyna River, which ultimately joins the Krishna River. The project utilizes non-consumptive recirculation of up to 22.34 MCM of water between the two reservoirs through cyclic pumping and generation operations. The combined catchment area of both reservoirs is 16.72 sq. km (Upper: 2.25 sq. km; Lower: 14.47 sq. km). To offset evaporation losses, water will be periodically replenished from an existing reservoir located about 7.8 km away. The one-time initial filling volume for both reservoirs is estimated at 37.19 MCM (29.57 MCM for PSP and 7.62 MCM for WRD/Irrigation). Annual evaporation losses are estimated as 0.62 MCM for the Upper Reservoir and 0.98 MCM for the Lower Reservoir, totalling 1.60 MCM/year. Water yield has been estimated using rainfall-runoff analysis based on 32 years (1991–2022) of IMD rainfall data at grid point (17°30'N, 73°45'E). The analysis, reviewed and approved by the Directorate of Hydrology, CWC (Ref: File No. T-11031/8/2024-HYD(S) DTE, dated 15.05.2024), considers a 90% dependable year. Runoff factors were taken as 60% for monsoon and 40% for non-monsoon conditions. Estimated annual sedimentation is 0.00834 MCM for the Upper Reservoir and 0.054 MCM for the Lower Reservoir, corresponding to 0.035% and 0.15% of their respective gross storage capacities. Overall, the hydrological assessment confirms adequate water availability, minor evaporation and sedimentation

	losses, and suitability of the closed-loop system for sustainable operation.

Court case details: Nill

Status of other statutory clearances:

Particulars	**Letter no. and date**
Status of Stage- I FC	The project doesn't not involve diversion of any forest land.
Approval of Central Water Commission	• Hydrological studies i.e., Water availability and design flood are cleared by CWC, Hydrology (North) Directorate vide their file no. File No.T-11031/8/2024-HYD(S) DTE, dated 03-06-2025. • The General Layout Chapter has been cleared by CWC, Hydel Civil Design (N&W) Directorate vide file no. File No.T-16031/2/2024-HCD(NWS) dated 26-05-2025.
Approval of Central Electricity Authority	The Power Potential Studies Chapter for an installed capacity of 2700 MW with a design energy (generation mode) of 5613.29 MU & cycle efficiency of 78.62% subject to some conditions has been cleared by Hydro Project Planning & Investigation Division, CEA, vide file no. CEA-HY-14-20/1/2024-HPPI Division dated 03-05-2024.
Is FRA (2006) done for FC-I	No

Details of the Environmental Management Plan (EMP)

Cost for Implementing Environmental Management Plan:

S. No.	Component of EMP	Capital Cost (Rs. in lakh)	Recurring Cost (Rs. In lakh)						Total Cost (Rs. in lakh)
			Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	
1	Catchment Area Treatment Plan	246.04	0.00	0.00	0.00	0.00	0.00	0.00	246.04
2	Biodiversity Conservation & Wildlife Management Plan	1502.07	0.00	0.00	0.00	0.00	0.00	0.00	1502.07
3	Fisheries Conservation and Management Plan	50.00	100.00	50.00	25.00	20.00	0.00	0.00	245.00
4	Muck Dumping and Management Plan	750.00	200.00	320.00	225.00	108.30	115.20	120.10	1838.60
5	Landscaping, Restoration of Quarry, and Construction Sites	77.50	165.00	20.30	150.00	35.00	25.15	25.03	497.98
6	Green Belt Development Plan	20.00	4.00	6.55	23.25	45.00	30.00	20.00	148.80
7	Reservoir Rim Treatment Plan	50.00	0.00	50.00	60.00	100.00	120.00	120.00	500.00
8	Sanitation and Solid Waste Management Plan	175.00	150.96	45.25	60.89	40.25	0.00	0.00	472.35
9	Public Health Delivery System	135.00	94.66	85.50	80.72	80.06	0.00	0.00	475.94

10	Energy Conservation Measures	100.00	70.00	70.00	70.00	70.00	0.00	0.00	380.00
11	Labour Management Plan	75.00	25.00	24.00	28.00	25.00	0.00	0.00	177.00
12	Disaster Management Plan	300.00	75.75	32.55	32.55	32.55	1.60	0.00	475.00
13	Springshed Management Plan	115.00	62.50	57.50	42.50	37.50	0.00	0.00	315.00
15	Control of Air, Noise and Water Pollution	0.00	100.00	100.00	100.00	100.00	0.00	0.00	400.00
16	Environmental Monitoring Programme	0.00	75.70	75.70	75.70	75.70	0.00	0.00	302.80
17	Rehabilitation and Resettlement Plan*	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
18	CER/ Local Area Development Plan	1897.00	0.00	0.00	0.00	0.00	0.00	0.00	1897.00
19	Watershed Development Plan	959.48	0.00	0.00	0.00	0.00	0.00	0.00	959.48
	Total	**6452.09**	**1123.57**	**937.35**	**973.61**	**769.36**	**291.95**	**285.13**	**10833.06**

*Private land identified for the proposed project will be purchased directly from respective landowners through negotiations on a mutually agreed term.

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Signature Not Verified

Digitally Signed by : Yogendra Pal Singh
Member Secretary, MoEFCC (EC)

Date: 03/09/2026