

F.No.11-8/2022-IA.III
Government of India
Ministry of Environment, Forest and Climate Change
IA-III Section (CRZ)

Indira Paryavaran Bhawan
Jor Bagh Road,
New Delhi - 110003
Dated: 31st March, 2022

To

M/s Solarinblue Energy Private Limited
152, GF-2, Shakti Khand 2, Indirapuram
Uttar Pradesh- 201014
Email: kapil@solarinblue.com

Subject: Development of 1MW Floating Solar Research Prototype for Power Generation research project in the Arabian Sea, Mangalore, Karnataka by M/s Solarinblue Energy Private Limited - CRZ Clearance - regarding

Sir,

This has reference to your proposal No. IA/KA/CRZ/250330/2022 dated 2nd March, 2022 on the above mentioned project proposal for CRZ Clearance, in accordance with the provisions of the Coastal Regulation Zone (CRZ) Notification, 2011 issued under the Environment (Protection) Act, 1986.

2. The Ministry of Environment, Forest and Climate Change has examined the proposal for CRZ Clearance to the project for Development of 1MW Floating Solar Research Prototype for Power Generation research project in the Arabian Sea, Mangalore, Karnataka by M/s Solarinblue Energy Private Limited.

3. The proposal was considered by the Expert Appraisal Committee for Infrastructure Development, Coastal Regulation Zone, Building / Construction and Miscellaneous projects in its meeting held on 9th March, 2022 in the Ministry through video conferencing. The project proponent and their consultant made the presentation and submitted the following information before the EAC (CRZ) for the instant project.

- (i). There shall be 90 Floating Solar Units with a water surface area of 200m x 200m. Sea bed perimeter (upto) is 800m x 800m. The solar panel will be installed by attaching floating buoys and anchored at the floor of the sea bed. The panels will be located 9 Km. from the coast at a depth of around 20 meters. The carpet effect ensures that the solar farm follows the wave slope. The solar panels will produce electricity which will be taken through cables and linked to the main grid.
- (ii). The underwater electrical cable shall pass through sea area, underground cable through sea shore and overhead transmission line in the land area. Transmission line/cable shall be laid in the existing pole over the bridge (clamped along with existing cables).
- (iii). The total cost of the project is ₹17.6 crores. The project will provide employment for 50 people.
- (iv). The details of the project in CRZ area is under: -

Project Description	Zonation	Length (m)	Total Length (m)
Overhead electrical line on existing poles	CRZ II	1843.22	6624.41
	CRZ IA (50m Mangrove buffer)	112.08	
	CRZ IV B	39.33	
	CRZ IB	6.34	

Outside CRZ	---	4623.44	
Underground electrical cable	CRZ IB	108.15	108.15
Underwater electrical cable	CRZ IVA	9388.87	9388.87
Proposed project location	CRZ IVA	Not Applicable	

- (v). The local Level CRZ Map for Implementation of Floating Solar project between proposed project location inside the Arabian Sea and Mulki substation via the Existing Electrical pole located at NIT Surathkal beach at Mangalore, Karnataka State was prepared by the Institute of Remote Sensing, Anna University, Chennai. The HTL, LTL, ecologically sensitive areas indicated in approved CZMP with setback lines as per CRZ Notification 2011 were superimposed onto the georeferenced cadastral map to prepare a local level CRZ map at 1:4000 scale. The project area falls in the CRZ IVA area and the electrical cable passes through CRZ-IA, CRZ-IB, CRZ-II and CRZ IVA as per approved CZMP as per CRZ Notification 2011 with remaining length outside CRZ.
- (vi). The project was recommended by the Karnataka CZMA vide letter no. FEE/249/CRZ/2021 dated 30/12/2021.

4. The Committee made detailed deliberation on the proposal and noted that the proposed solar project through the Floating Solar Research Prototype for Power Generation pilot project is unique and first of its kind in the country. The solar panel will be installed by attaching floating buoys and anchored and as such, there is no permanent structures shall be installed. The Committee desired that the prototype shall be developed taking into account safety and risk. It was also highlighted that there shall be a risk of collision/entanglement of larger migratory animals on the anchored panels. The Committee envisaged that the shelter provided by the floating panel could lead to an assemblage of marine biodiversity underneath these panels and thus proper documentation of the same will be useful for scientific fraternity as well as future development of floating solar projects. The Committee opined that the project proponent shall monitor in real time the underwater marine diversity through underwater camera / go pro camera set up in different locations. The project proponent shall take necessary measures to distinguish the area and not to affect trawling and traditional fishing.

5. The project / activity for generating power by non-conventional energy sources is a permissible activity in the CRZ area as per the provisions contained in para 3(i)(c) and 4(ii)(d) & (h) of the CRZ Notification, 2011 requiring prior permission from the Ministry. As per the Ministry's OM dated 7th July, 2017, the proposed project is exempted from the requirement of prior environmental clearance.

6. Based on the recommendations of the Karnataka Coastal Zone Management Authority, proposal submitted by the project proponent and recommendations of the EAC (CRZ), the Ministry of Environment, Forest and Climate change hereby accords CRZ clearance to the project for **Development of 1MW Floating Solar Research Prototype for Power Generation research project in the Arabian Sea, Mangalore, Karnataka by M/s Solarinblue Energy Private Limited**, under the provisions of the CRZ Notification, 2011 and amendments thereto, subject to the compliance of terms and conditions as under:-


PART A – SPECIFIC CONDITIONS:

- Handwritten signature* (i). All construction shall be strictly in accordance with the provisions of the CRZ Notification, 2011 and as amended from time to time.

- (ii). The project proponent shall study the underwater marine diversity through an underwater camera / go promo camera set up in different locations of the floating panel and the report including underwater recording shall be submitted to the Regional Office of the Ministry and to the Members of EAC along with the compliance report.
- (iii). No groundwater shall be extracted within the CRZ area to meet the water requirements during the construction and / or operation phase of the project.
- (iv). Any temporary physical infrastructure setup and excavated material, if any, during underground electrical cabling shall not be dumped in water bodies or adjacent areas and the site shall be restored to its original condition after completion of construction of work.
- (v). Permanent labour camp, machinery and material storage shall not be set up in the CRZ area.
- (vi). All the conditions stipulated by the Karnataka CZMA *vide* letter dated 30th December 2021 and commitments made by the PP before the CZMA and EAC shall be followed in letter and spirit.
- (vii). All necessary clearance from the concerned authority, as may be applicable should be obtained prior to commencement of project or activity.

PART B - GENERAL CONDITIONS:

- (i). Management of solid waste in accordance with the Solid Waste Management Rules, 2016 shall be strictly implemented.
- (ii). 'Consent to Establish' and / or 'Consent to Operate' shall be obtained from State Pollution Control Board under the provisions of Air (Prevention and Control of Pollution) Act, 1981 and / or the Water (Prevention and Control of Pollution) Act, 1974, as may be applicable.
- (iii). Disposal of muck during construction phase should not create any adverse effect on the neighbouring communities and be disposed taking the necessary precautions for general safety and health aspects of people, only in approved sites with the approval of Competent Authority.
- (iv). All liquid waste arising from the proposed development will be disposed of as per the norms prescribed by Central/State Pollution Control Board. There shall not be any disposal of untreated effluent into the sea/coastal water bodies. It shall be ensured that the wastewater generated is treated in the STP. The treated waste water shall be reused for landscaping, flushing and / or HVAC cooling purposes etc. within the development. The project proponent should also make alternate arrangement for situation arising due to malfunctioning of STP. There shall be regular monitoring of standard parameters of the effluent discharge from STP under intimation to the SPCB.
- (v). Any hazardous waste generated during construction phase, shall be disposed off as per applicable rules and norms with necessary approvals of the State Pollution Control Board.
- ✓ (vi). A copy of the clearance letter shall be uploaded on the website of the concerned State Coastal Zone Management Authority / State Pollution Control Board. The Clearance letter shall also be displayed at the Regional Office, District Industries Centre and Collector's Office/ Tehsildar's Office for 30 days.
- (vii). A Six-monthly monitoring report shall need to be submitted by the project proponent to the concerned Regional Office of this Ministry regarding the implementation of the stipulated conditions.

- (viii). The Ministry of Environment, Forest & Climate Change or any other Competent Authority may stipulate any additional conditions or modify the existing ones, if necessary in the interest of environment and the same shall be complied with.
- (ix). The above stipulations would be enforced among others under the provisions of the Water (Prevention and Control of Pollution) Act, 1974, the Air (Prevention and control of Pollution) Act, 1981, the Environment (Protection) Act, 1986, the Public Liability (Insurance) Act, 1991, the EIA Notification, 2006 and the extant CRZ regulations.
- (x). Full co-operation shall be extended to the officials from the Regional Office of MoEF&CC, during monitoring of implementation of environmental safeguards stipulated. It shall be ensured that documents/data sought pertinent is made available to the monitoring team. A complete set of all the documents submitted to MoEF&CC shall be forwarded to the concerned Regional Office of MoEF&CC.
- (xi). In the case of any change(s) in the scope of the project, the project would require a fresh appraisal by this Ministry.
- (xii). The Ministry reserves the right to add additional safeguard measures subsequently, if considered necessary, and to take action to ensure effective implementation of the suggested safeguard measures in a time bound and satisfactory manner, including revoking of the environment clearance under the provisions of the Environmental (Protection) Act, 1986, for non-compliance.
- (xiii). All other statutory clearances such as the approvals for storage of diesel from Chief Controller of Explosives, Fire Department, Civil Aviation Department, Forest Conservation Act, 1980 and Wildlife (Protection) Act, 1972 etc. shall be obtained, as applicable by project proponent from the respective Competent Authorities.
- (xiv). The project proponent should advertise in at least two local Newspapers widely circulated in the region, one of which shall be in the vernacular language informing that the project has been accorded CRZ Clearance and copies of clearance letters are available with the State Pollution Control Board (SPCB) and may also be seen on the website of the Ministry of Environment, Forest and Climate Change at <https://parivesh.nic.in/>. The advertisement should be made within seven days from the date of receipt of the Clearance letter and a copy of the same should be forwarded to the concerned Regional Office of this Ministry.
- (xv). A copy of the clearance letter shall be sent by the proponent to concerned Panchayat, Zilla Parisad / Municipal Corporation, Urban Local Body and the Local NGO, if any, from whom suggestions/ representations, if any, were received while processing the proposal.
- (xvi). The proponent shall upload the status of compliance of the stipulated conditions, including results of monitored data on their website and shall update the same periodically. It shall simultaneously be sent to the Regional Office of MoEF&CC, the respective Zonal Office of CPCB and the SPCB.
- (xvii). The environmental statement for each financial year ending 31st March in Form-V as is mandated to be submitted by the project proponent to the concerned State Pollution Control Board as prescribed under the Environment (Protection) Rules, 1986, as amended subsequently, shall also be put on the website of the project proponent along with the status of compliance of clearance conditions and shall also be sent to the respective Regional Office of the Ministry by e-mail.
- 

7. This Clearance is subject to final order of the Hon'ble Supreme Court of India in the matter of Goa Foundation Vs Union of India in Writ Petition (Civil) No.460 of 2004 as may be applicable to this project.

8. 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 CRZ clearance, if implementation of any of the above conditions is not found satisfactory.

9. Concealing factual data or submission of false / fabricated data and failure to comply with any of the conditions mentioned above may result in withdrawal of this clearance and attract action under the provisions of the Environment (Protection) Act, 1986.

10. Any appeal against this CRZ clearance 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.

11. The above conditions shall be enforced, *inter-alia* under the provisions of the Water (Prevention & Control of Pollution) Act, 1974, the Air (Prevention & Control of Pollution) Act, 1981, the Environment (Protection) Act, 1986, Hazardous and Other Wastes (Management and Transboundary Movement) Rules, 2016 and the Public Liability Insurance Act, 1991 along with their amendments and Rules and any other orders passed by the Hon'ble Supreme Court of India / High Courts and any other Court of Law relating to the subject matter.

12. This issues with approval of the Competent Authority.



(Dr. H. Kharkwal)
Scientist 'E' (CRZ)

Copy to:

1. The Chairman, Karnataka State Coastal Zone Management Authority, Room No.448, 4th Floor, II Gate, M. S. Building, Bangalore - 560001, Karnataka
2. The Deputy DGF (C), MoEF&CC Integrated Regional Office, Kendriya Sadan, 4th Floor, E&F Wings, 17th Main Road Koramangala II Block, Bangalore, Karnataka-560034
3. The Member Secretary, Karnataka State Coastal Zone Management Authority, Room No.710, 7th Floor, IV Gate, M. S. Building, Bangalore - 560001, Karnataka
4. The Member Secretary, Central Pollution Control Board, Parivesh Bhawan, CBD-cum-Office Complex, East Arjun Nagar, Delhi - 110032
5. The Member Secretary, Karnataka State Pollution Control Board, Parisara Bhavan, No #49, Church Street, Bengaluru - 560001, Karnataka
6. Guard File / Monitoring File / Website / Record File



(Dr. H. Kharkwal)
Scientist 'E' (CRZ)