

**MINUTES OF THE 267th MEETING OF THE EXPERT APPRAISAL COMMITTEE
FOR PROJECTS RELATED TO COASTAL REGULATION ZONE HELD
ON 13th JULY, 2021**

The 267th meeting of the Expert Appraisal Committee for projects related to Coastal Regulation Zone was held on 13/07/2021 through Video Conferencing due to prevalent pandemic situation. The list of members presents in EAC given at **Annexure-I**.

The deliberations held and the decisions taken are as under:

2.0 CONFIRMATION OF THE MINUTES OF THE LAST MEETING

The Committee having noted that the Minutes of the 264th meeting are in order and confirmed the same with suggestions that in case any typographical /grammatical errors are noticed in due course, the same may be corrected suitably.

3.0 CONSIDERATION OF PROPOSALS

FRESH PRAPOSAL:

3.1 Proposal for laying of Paradip-Somnathpur-Haldia Pipeline of Indian Oil Corporation Limited by M/s Indian Oil Corporation Ltd. (IOCL) for CRZ Clearance [IA/OR/CRZ/125595/2019] [F.No.11/20/2021-IA.III]

“The EAC noted that the Project Proponent has given undertaking that the data and information given in the application and enclosures are true to the best of his knowledge and belief and no information has been suppressed in the EIA/EMP report. If any part of data / information submitted is found to be false/ misleading at any stage, the project will be rejected and Environmental Clearance given, if any, will be revoked at the risk and cost of the project proponent.”

The proposal of M/s Indian Oil Corporation Ltd. (IOCL), is for laying of Paradip-Somnathpur-Haldia Pipeline of Indian Oil Corporation Limited. The project proponent made a presentation and provided the following information:

- (i) The proposed project is for laying of Pipeline from Paradip-Somnathpur-Haldia, it will be used for transportation of petroleum products.
- (ii) The proposed length of pipeline is about 344 km, having capacity of 4.6 MMTPA.
- (iii) The size of pipeline will be 18” OD, API 5L-X70 Grade.
- (iv) The proposed pipeline is passing through Odisha (248 km) and West Bengal (96 km).
- (v) Total 56.85 ha. area falling in CRZ area out of this 53.98 ha. in Odisha and 2.87 ha. area in West Bengal.
- (vi) In Odisha the pipeline will pass through CRZ-III and CRZ-IV.
- (vii) In West Bengal the pipeline will pass through CRZ-IA, CRZ-IB, CRZ-II and CRZ-IV and 370 m length of pipeline is passing from CRZ-I area. Out of 370, 8 m is passing from CRZ-IA and 362 m is passing from CRZ-IB area.

- (viii) The pumping station will be at Paradip and delivery stations will be at Somnathpur & Haldia.
- (ix) Higher wall thickness pipe is envisaged to be laid across major rivers, water courses, rail and road crossings etc.
- (x) Horizontal Directional Drilling (HDD) method will be adopted at all major river, water courses, rail and road crossings.
- (xi) Pipeline system has been designed based on 8000 hours of operation in a year.
- (xii) Maximum allowable operating pressure (MAOP) of the system is based on 72% of the specified minimum yield strength of the pipe material i.e. $136.67 \times 0.72 = 98.4$ kg/sq.cm
- (xiii) The pipeline crosses through water bodies which are tidal influenced and are falling under CRZ area.
- (xiv) The CRZ map of 1:4000 scale was prepared by CISR-National Institute of Oceanography, Vishakhapatnam, Andhra Pradesh for the project in the State of Odisha and in the State of West Bengal study for the project has been carried out by Institute of Environmental Studies and Wetland Management (IESWM), Kolkata.
- (xv) The project proponent made a submission that the capacitive pipeline like Paradip-Somnathpur-Haldia pipeline is not covered under PNGRB Act.
- (xvi) The PP also informed that the 18 m RoU (Right of User) is a standard practice followed for all liquid hydrocarbon pipeline projects.
- (xvii) The 3.657 ha. forest land involved in Odisha and the process for Forest Clearance for the State of Odisha is under process at PCCF, Odisha.
- (xviii) Forest Clearance NOC for West Bengal State has obtained from DFO, Purba Medinipur.
- (xix) During the proposed project approx. 20 persons will be permanent during construction phase and 20 persons will be permanent during operational phase.
- (xx) While temporary employ will also be generated, about 50 persons during construction phase and 25 persons during operational phase.
- (xxi) The total cost of the project will be ₹1132 crores.
- (xxii) The Odisha Coastal Zone Management Authority has recommended the proposal for clearance *vide* its letter No. 124/OCZMA dated 13/07/2020.
- (xxiii) The West Bengal Coastal Zone Management Authority has also recommended the proposal for clearance *vide* its letter No. *vide* No. 615/EN/T-II-4/01/2021 dated 31/03/2021

2. The Committee noted that the instant proposal for laying of pipeline is passing within CRZ areas of Odisha (2.87 ha. area) and West Bengal (2.87 ha.). The Committee further noted that the entire pipeline is laid underground and HDD method (15-20 m depth) will be adopted for the sections of pipeline passing through river / water bodies. The Committee also took note that there is no forest land involved in West Bengal, however a part of the pipeline falls within the forest land of Odisha (3.657 ha.).

3. The Committee desired that there shall be no extraction of ground water within the CRZ area as per the extant norms. The Committee further desired that the pipeline shall be laid using appropriate technology to ensure that there is no petroleum product leakage and also constant flow in the pipelines.

4. The Committee was informed by the project proponent that the Risk Reduction Measures, adherence to International standards / codes and practices along with OISD /

PNGRB will be strictly complied to viz., SCADA & Telecommunication System, Leak Detection System (LDS), Pipeline Intrusion Detection System (PIDS), Isolation Valves (SV), Cathodic Protection System, external coating & internal coating, preventive maintenance / predictive maintenance, daily patrolling through line patrol men covered under GPS & annual patrolling by officers, Surge Relief System, pigging facilities, Mobile Flare Units and Emergency Response Vehicle (ERV) etc.,

5. Based on the deliberations held and submissions made, the Committee recommended the proposal for CRZ Clearance subject to following conditions:

- i) All construction shall be strictly in accordance with the provisions of CRZ Notification, 2011 and as amended from time to time.
- ii) The project proponent shall ensure natural flow of the Creek water in the project site and also ensure that there are no petroleum product leakages from the pipeline.
- iii) No groundwater shall be extracted within CRZ area to meet the water requirements during the construction and / or operation phase of the project,
- iv) All necessary clearance from the concerned authority, as may be applicable should be obtained prior to commencement of project or activity.
- v) EMP should make adequate provision towards safety and hazard prevention and mitigation measures. Details of the same to be submitted to the Regional Office of the Ministry for further monitoring and compliances.

RECONSIDERATION

3.2 Proposal for Development of 3400 MW (Phase-II) Solar Park / Solar activities in CRZ areas of Dholera Special Investment Region, Dholera, District Ahmedabad, Gujarat by M/s Dholera Special Investment Regional Development Authority for CRZ Clearance [IA/GJ/CRZ/77192/2018] [F.No. 11-7/2019-IA.III]

“The EAC noted that the Project Proponent has given undertaking that the data and information given in the application and enclosures are true to the best of his knowledge and belief and no information has been suppressed in the EIA/EMP report. If any part of data / information submitted is found to be false/ misleading at any stage, the project will be rejected and Environmental Clearance given, if any, will be revoked at the risk and cost of the project proponent.”

The proposal of M/s Dholera Special Investment Regional Development Authority (DSIRDA), is for Development of 3400 MW (Phase-II) Solar Park / Solar activities in CRZ areas of Dholera Special Investment Region, Dholera, District Ahmedabad, Gujarat. The project proponent made a presentation and provided the following information:

- (i) Solar power generation in India by the end of March, 2018 stood at 21.65 GW. In order to realise the Government of India’s endeavour of 100 GW solar power generation by year 2022, the Government of Gujarat has come out with a proposal of putting up the World’s largest solar power park of 4400 MW capacity at Dholera.

- (ii) A Special Purpose Vehicle viz. M/s Dholera Industrial City Development Limited (DICDL) has been created by Central Government by DMICDC Trust and the State Government of Gujarat by DSIRDA to implement the project.
- (iii) Gujarat Power Corporation Limited (GPCL) would be the major stakeholder in developing the proposed Solar Power Park and the land would be leased out to the GPCL for development of the proposed project. DSIRDA would facilitate GPCL to develop this Solar Power Park by putting up the minimum support infrastructure required and obtaining the land and necessary CRZ clearance for the project.
- (iv) Site for setting up PV solar park would be dependent on the factors comprising of: i) high annual solar radiation to obtain maximum solar electricity output, ii) flat land to ensure savings on earthwork, iii) should have minimum vegetation at site, iv) should also be close to the grid and a substation to avoid the need to build expensive electricity lines for evacuating the power, v) should have adequate water availability to full fill the requirements during construction and for O&M activities and vi) easy accessibility from main thorough fares i.e. good connectivity.
- (v) The present site within DSIRDA earmarked boundary provides all the above identified advantages of siting of the solar park with all required basic infrastructure already under fast mode of implementation. Any other site nearby might not have provided all these advantages.
- (vi) Total land area of DSIR is about 920 sq. km of which 520 sq. km has been allocated for town planning and approximately 400 sq. km falls under Coastal Regulation Zone (CRZ) of Gulf of Khambhat.
- (vii) The proposed 4400 MW solar park Geo-coordinates are 21°59'15.677"N to 22°18'53.311"N and 72°9'56.471"E to 72°19'57.257"E.
- (viii) The site touches the Gulf of Khambhat on the Eastern side and river Sukhbhadar passes through the northern side of the SIR area. In addition, river Lika passes through the middle of the SIR area before meeting the Gulf of Khambhat.
- (ix) The site does not have any human settlements or alternate legal status of land use and largely lying vacant. The site is absolutely flat with very gentle slope from north-west to south-east.
- (x) The proposed Solar Power Park of total capacity 4400 MW would be built in a land of about 8594.95 hectares.
- (xi) The total land area is about 8594.95 ha. which is falling under CRZ zones, CRZ IB (7949.17 ha.), CRZ III (204.34 ha.) and CRZ IVB (5.03 ha.) and about 436.41 ha. come under non-CRZ category.
- (xii) There will be 11 no. of plots in this 8594.95 hectares of land, ranging from 847 to 1,232 ha. area of each plot. These 11 plots have been further sub-divided into 27 sub-plots.
- (xiii) The total area available for the development of solar park after carving out the 'No-go' areas of salt marshes, mud-flats, mangroves and interspersed areas within these land features would be in the tune of 8594.95 hectares of which the solar plant proposed would occupy an area of about 8252 ha.
- (xiv) No R&R would be involved.
- (xv) There are no eco-sensitive areas within 2-3 kms of the site. The nearest eco-sensitive site of Velvadar Black Buck sanctuary and is about 4 km south-west from the nearest solar plot planned.
- (xvi) The CRZ map of 1:4000 scale was prepared by Institute of Remote Sensing, Anna University, Chennai.

- (xvii) An estimated amount of 11.25 MLD of water will be required for the proposed project during the operational stage. For on-site storage of water, 4 no's ground storage reservoir of capacity of 1.25 MLD, 4 MLD, 3.5 MLD and 2.5 MLD respectively will be constructed at site. An overhead tank will also be constructed, if required.
- (xviii) About 300 labourers (at the peak) comprising of semi-skilled and unskilled is estimated to be employed during the construction phase. First preference will be given to the people residing in the nearby villages depending on their working skills and capabilities. Thereafter, about 100 employees will be required during operation phase including operation and maintenance officers and site engineers.
- (xix) It is estimated that about 354 cum of earth excavation, 165 cum of concrete laying, 21 tons of reinforcement rods and 82 tons of galvanized structural steel would be required per MW of construction.
- (xx) Construction related materials viz. stone aggregates, sand, bricks etc. for the project are likely to be sourced locally from the established sources of DSIR with the region.
- (xxi) During the construction phase, the waste water or sewage from site office toilets will be disposed in package type Sewage Treatment Plant (STP) of 0.05 MLD at each sub-station catering to the people working under the respective command area. The total capacity envisaged for the project is 0.2 MLD for 4 (four) sub-stations.
- (xxii) An amount of ₹3.0 crore will be earmarked for environment mitigation measures.
- (xxiii) The total estimated cost of the project is approximately INR 22,000 crore with additional cost of INR 1700 crores for infrastructure.
- (xxiv) The Gujarat Coastal Zone Management Authority has recommended the proposal for clearance vide its letter No. ENV-10-2018-39-E(T CELL) dated 10.08.2018.

2. The Committee was informed that M/s Dholera Special Investment Regional Development Authority was earlier accorded CRZ Clearance for Phase-I (1000 MW) Solar Power Park at Dholera Special Investment Region near Gulf of Khambhat, in Ahmedabad District Gujarat *vide* this Ministry's letter dated 26th February, 2019.

3. The present Committee was appraised that in the earlier EAC CRZ meeting held on 25th January, 2019, the then Committee observed that about 7949.17 ha. (say 8000 ha.) falls under CRZ-1B i.e inter-tidal zone and the area is a highly eroding area, in particular the mud flats areas. It was also observed that mudflats are ecologically very sensitive and its characteristics should not be altered. The Committee observed that prior modelling study for a 30-year period should necessarily have been carried out considering that a large part of the project falls in a highly eroding stretch acknowledged by most agencies concerned. The Committee therefore decided that the project proponent shall make a study and develop for the next 30 years' period, a modeling specific to sea level rise and associated risks and examine viability of the entire project capacity in this context. The Committee also observed that the region falls under Central Asia flyway of migratory birds and therefore need to refer the study carried out either by BNHS or carry its own study to assess, in depth, the potential impact on migratory birds.

4. On submission of the above documents, the proposal was placed for consideration before the EAC for the Phase II (3400 MW). The Committee noted that the area is in inter-tidal zone however, the activity is a permissible one as per para under 3(i) (c) and 4 (ii) (h) of the CRZ Notification, 2011. The Committee found the documents *viz.* (i) Three Season Migratory Avifauna study at proposed Solar Power project site in Dholera Special Investment Region and (ii) Study on Sea level rise and coastal erosion in Dholera Special Investment Region (DSIR),

Dholera, Gulf of Khambhat, Gujarat, Satisfactory. The Committee took a special note of excellent study reports prepared by GUIDE for bird migration and by Indomer Coastal Hydraulics (P) Ltd for sea level rise and coastal erosion. Such good quality reports helped EAC significantly in understanding the aspects well.

5. The Committee also noted that project proponent agreed to notify 628.63 ha. area out of 6365.52 ha. plot area as no development areas (buffer area) as recommended in the study by Indomer Coastal Hydraulics (P) Ltd.

6. The Committee desired that the final recommended will be considered after the site visit undertaken by a Sub-Committee in the month of August-September 2021 comprising of: i) Dr. Deepak Apte, Chairman of the EAC (CRZ); and members of the committee ii) Dr. V.K. Jain; iii) Dr. Mukesh Khare; iv) Mr. S. Jeyakrishnan; v) Mr. M.S. Negi; vi) Dr. Ramana Murthy vii) Representative of the Ministry of Environment, Forest and Climate Change; and viii) Representative of Gujarat Ecology Commission; Representatives of GUIDE and Indomer Coastal Hydraulics (P) Ltd. for better understanding of the CRZ area proposed for the project. The Committee also stated that the project is first of its kind in India and has to be implemented without any significant damage to the coastal ecosystem.

7. Committee also desired GUIDE to prepare a comprehensive migratory bird conservation and habitat restoration plan including most critical areas for migratory birds as stated in their report along with financial provisions based on the three-season study undertaken by them. Committee during the site inspection will examine it in detail.

8. Committee also desired project proponent to provide in detail the project layout based on the study conducted and recommendation made by Indomer Coastal Hydraulics (P) Ltd including no development areas clearly demarcated. Committee will examine the locations and recommendations during the site visit.

9. Committee will also examine the status of the 1000 MW (out of 4400 MW) units that were already granted CRZ clearance.

4.0 Any other item with the permission of the Chair.

4.1 Standardization of General Conditions in CRZ

The matter related to standardisation of General Conditions stipulated in CRZ clearance was discussed. The conditions were circulated to the EAC members. The Committee suggested that the comments/inputs of all members shall be forwarded to the Ministry before the next EAC meeting.

The meeting ended with a Vote of Thanks to the Chair.

List of the Expert Appraisal Committee (CRZ) members participated during Video Conferencing (VC)

S. No.	Name of Members	Designation
1.	Dr. Deepak Arun Apte, B-11, Poorva Society, Near Saraswati English Medium High School, Panchpakhadi, Thane-400602; E-mail: spiderconch@gmail.com	Chairman
7.	Dr. Manoranjan Hota K-184, Gulshan Ikebana, Ikebana, Sector-143, Noida, Gautam Budh Nagar, Uttar Pradesh-201301; E-mail: hota.manoranjan@gmail.com.	Member
2.	Shri S. Jeyakrishnan Flat No. C-201, Oak Canopy, 8 Raja Street, Kallimadal Road, Singanallur, Coimbatore- 641005, Tamil Nadu; E-mail: sukumaranjeyakrishnan@gmail.com	Member
3.	Shri Manmohan Singh Negi D-1, Tower-8, New MotiBagh, New Delhi-110023, Email: negims84@hotmail.com	Member
4.	Shri Sham Wagh 8, Laxmi Apartments, Lane No.6, Prabhat Road, Pune-411004, E-mail: sham.wagh@gmail.com	Member
5.	Prof. Ashok Kumar Pachauri C/o: Rajesh Chandra, 31, Civil Lines Boat Club Road, Roorkee, Haridwar, Uttarakhand-247667, Email: pachauri1945@gmail.com	Member
6.	Dr. V.K Jain Professor of Chemistry, Department of Chemistry, School of Sciences, Gujarat University, Ahmedabad, Gujarat - 380 009; E-mail: drvkjain@hotmail.com	Member
8.	Dr. Niraj Sharma Senior Principal Scientist, Transport Planning, Planning & environment(TPE) Division, Central Road Research Institute, Delhi Cantt, New Delhi-110025; E-mail: neeraj.crrri@nic.in	Member

9.	Shri. R.P.S Verma, Director, Ministry of Water Resources, Central Water Commission, Sewa Bhawan, Sector-1, R.K. Puram, New Delhi-110066, E-mail: rpsverma-cwc@nic.in cedte@nic.in	Member
10.	Dr. M.V. Ramana Murthy, Director, NCCR, Velachery Tambaram Main Road, Narayanapuram, Palikaranai, Chennai - 600 100 (Tamil Nadu) E-mail: mvr@niot.res.in, ramana.mvrm@gmail.com	Member
11.	Dr. H. Kharkwal Additional Director Ministry of Environment, Forest and Climate Change Indira Paryavaran Bhawan, Jor Bagh Road New Delhi-110003 E-mail: h.kharkwal@nic.in	Member Secretary
12.	Dr. Saranya P. Ministry of Environment, Forest and Climate Change, Indira Paryavaran Bhawan, Jor Bagh Road, New Delhi-110003	Joint Director, MoEFCC
13.	Dr. Bhawana Kapkoti Negi Ministry of Environment, Forest and Climate Change, Indira Paryavaran Bhawan, Jor Bagh Road, New Delhi-110003	Technical Officer, MoEFCC
