

First phase of solar park along ecologically sensitive Gulf of Khambhat gets clearance

by Mayank Aggarwal on 21 February 2019

- *An expert panel of India's environment ministry has recommended coastal clearance to a 1,000-megawatt solar park near the ecologically sensitive Gulf of Khambhat.*
- *The project is part of the Gujarat government's plan to build the world's largest solar park of 4,400 MW capacity.*
- *All clean energy projects, however, are not necessarily green. The expert panel stipulated that any further clearance to the project would be based on studies assessing the project's ecological impacts.*

An expert committee of India's environment ministry has slowed down the Gujarat government's plan to develop the "world's largest solar power park of 4,400 megawatts" capacity, near the ecologically sensitive Gulf of Khambhat, in the western state of India. The committee has recommended (<http://environmentclearance.nic.in/writereaddata/Form-1A/Minutes/01022019LEMK1QX7FINALMINUTES207MEETINGJANUARY252019.pdf>) Coastal Regulation Zone (CRZ) clearance for the first phase of the solar park and called for several studies assessing the impact on migratory birds and sea level rise before considering further clearance for additional capacity.

The project is proposed by the Dholera Special Investment Regional Development Authority (DSIRDA), which is under Gujarat Government, for developing a 4,400 MW solar power park at the Dholera Special Investment Region (DSIR) near Gulf of Khambhat. The estimated cost (<http://environmentclearance.nic.in/writereaddata/Form-1A/Minutes/01022019LEMK1QX7FINALMINUTES207MEETINGJANUARY252019.pdf>) of the proposed solar park is about Rs. 220 billion (Rs. 22,000 crores) and the first phase of the park is of 1,000 MW capacity.

India has a solar target of 100,000 MW by 2022. However, not all clean energy projects are necessarily green.

In April 2018, a separate plan by the central government to install India's first offshore wind farm of 1,000 MW in the Gulf of Khambhat, which is an ecologically sensitive area off the coast of Gujarat, had come under severe criticism (<https://india.mongabay.com/2018/04/17/clean-vs-green-will-indias-offshore-wind-energy-push-threaten-biodiversity/>) from environmentalists who believed it could threaten the marine ecology. That project is yet to materialise.

Now, this proposed 4,400 MW solar park, which sought CRZ clearance, was discussed during the January 25, 2019 meeting of the Union Ministry of Environment, Forest and Climate Change's (MoEFCC (<http://www.moef.gov.in/>)) expert appraisal committee (EAC) for projects related to CRZ. The committee was informed that the total land area of DSIR is about 920 square kilometres (92,000 hectares) of which 520 sq. kms (52,000 hectares) has been allocated for town planning and approximately "400 sq. km (40,000 hectares) falls under coastal regulation zone (CRZ) of Gulf of Khambhat."

As per the DSIRDA's presentation, 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 8,594.95 hectares of which the proposed solar plant would occupy an area of about 8,252 hectares.

The Gujarat Power Corporation Limited (GPCL) would be the major stakeholder in developing the solar park and the land would be leased out to the GPCL for developing it. "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," the minutes of the meeting said.

The project site touches the Gulf of Khambhat on the eastern side and River Sukhbhadar passes through the northern side of the special investment region (SIR) area while River Lika passes through the middle of the SIR area before meeting the Gulf of Khambhat.

The EAC was also informed by the project proponent that the site for setting up the solar park is dependent on factors like high annual solar radiation, flat land to ensure savings on earthwork, minimum vegetation, closeness to the grid for evacuating the power generated and adequate water availability.

The committee was told that the present site within the DSIRDA earmarked boundary provides all the identified advantages and "any other site nearby might not have provided all these advantages." It was also claimed in the EAC's meeting that there are no eco-sensitive areas within two-three kms of the site and an amount of Rs. 30 million (Rs. three crores) would be earmarked for the environment mitigation measures.

The project is near ecologically sensitive areas

The committee observed that about "7,949.17 hectares (of the solar park) falls under CRZ-1B i.e. inter-tidal zone and the area is a highly eroding area, in particular, the mud flats areas." It further noted that the "mudflats are ecologically very sensitive and its characteristics should not be altered."

The EAC observed that a 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."

It also noted that "perhaps the project proponent had identified the land availability only from R&R (Resettlement and Rehabilitation) encumbrances and the viability of the site to withstand the impact of erosion and sea level rise, has been either negated or not given due diligence."



India has a solar target of 100,000 MW by 2022. Photo by Citizenmj/Wikimedia Commons.

EAC decided that the "project proponent shall make a study and develop for the next 30 years period, a modelling specific to sea level rise and associated risks and examine the viability of the entire project capacity in this context".

Besides the ecologically sensitive nature of the site, the panel also noted that the region falls under the "Central Asia flyway of migratory birds and therefore need to refer the study carried out either by Bombay Natural History Society (BNHS) or carry its own study to assess, in depth, the potential impact on migratory birds".

"The committee during the course of the deliberation agreed that to begin with the project can be considered for 1,000 MW in the intertidal areas close of HTL (High Tide Line) that are lightly inundated," said the minutes of EAC's meeting while noting that the panel also called for a visit of the project area by a sub-committee.

EAC decided that the further consideration for the addition of remaining capacity (beyond 1,000 MW) of the solar power park will be taken up once all the studies sought and the report of the sub-committee are examined.

"Based on the deliberations held and submissions made, the committee, therefore, decided that to begin with 1,000 MW solar power project can be recommended in the intertidal areas close to the HTL that are lightly inundated," the minutes said.

But with the first phase cleared, it is indicative that the remaining clearances would be easily given, noted ornithologist and environmentalist Bikram Grewal. "All the reports sought are meaningless because once the project is cleared no authority would like to waste the money involved (by cancelling it). Once these reports are received, further clearance would be given automatically on the basis of some mitigations measures which nobody would ever monitor," Grewal told Mongabay-India.

Afforestation programme to combat the rise in temperature

The committee, meanwhile, stipulated that the CRZ clearance (for the first phase) will be subject to clearance from the Standing Committee of National Board for Wildlife.

It also held that to combat "likely rise in ambient temperature due to installations of solar panels, the project proponent shall implement massive afforestation programme in the region, (in addition to mangrove plantation committed by the project proponent) to be executed simultaneously during the course of implementation of the project itself."

"However, no afforestation should be done on non-vegetated mudflats. No mudflats and connecting inter-tidal streams shall be touched during the implementation of the project," the committee said.

Banner image: Are all renewable energy projects green? Photo

(https://commons.wikimedia.org/wiki/File:Solar_Power_Plant_Telangana_I_in_state_of_Telangana,_India,_12-MWp_DC.jpg) by Thomas Lloyd Group/Wikimedia Commons.

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