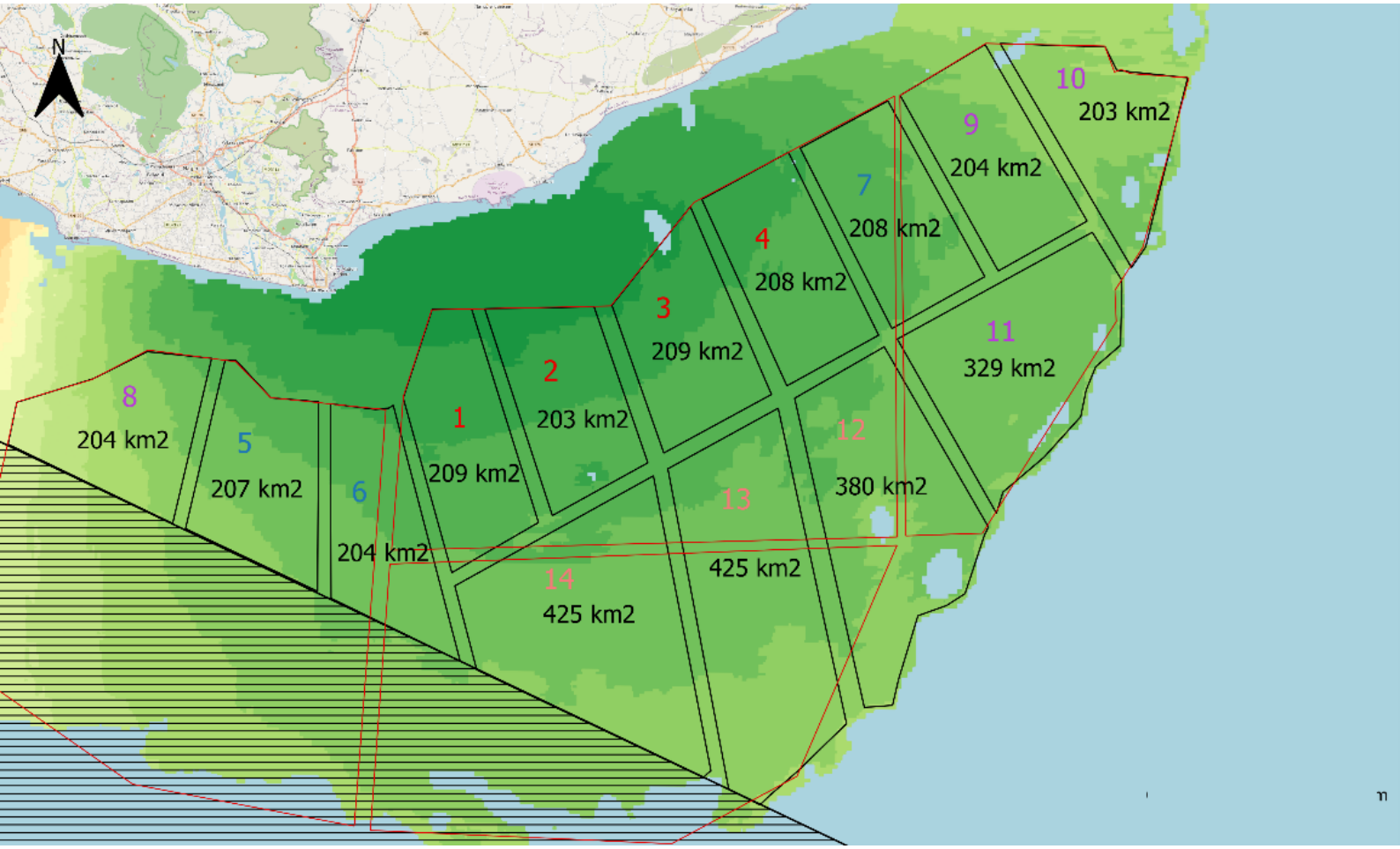
Danish Energy Agency



14 spots located for offshore wind in the Gulf of Mannar. Source: From the report "Maritime Spacial Planning for Offshore Wind Parks in Tamil Nadu". See link below.

Indian-Danish collaboration launches conceptual plan for 15 Indian offshore wind parks

The Danish Energy Agency and the Indian Ministry of New and Renewable Energy have published a conceptual plan with a pipeline identifying 15 locations for offshore wind in India. The conceptual plan provides substantial inputs to the current stakeholder dialogue on the recently released draft tender document from the Indian Ministry of New and Renewable Energy.

The joint study was presented at a high-level event in Chennai, India on November 23, 2022 as an activity under the Centre of Excellence for Offshore

Wind and Renewable Energy, a joint initiative between The Danish Energy Agency (DEA) and The Indian Ministry of New and Renewable Energy (MNRE). It highlights the rough and fine screening process as well as a conceptual build plan for the selected zones off the coast of Tamil Nadu and Gujarat and is based on Denmark's approach to maritime spatial planning for offshore wind. The plan provides substantial inputs to the current stakeholder dialogue on the recently released draft tender document from MNRE.

Moreover, the two parties presented a viability assessment of existing port infrastructure in proximity to the coasts off the two states including recommendations for upgrades and development. The projects provide significant input to the undergoing stakeholder consultation on the draft tender document for the first offshore wind parks in India, released by MNRE on November 14, 2022. This includes further details on the exact locations of the first 4 GW in Tamil Nadu that MNRE have taken into consideration as part of the comprehensive stakeholder inputs.

"The joint projects on maritime spatial planning and port infrastructure have provided significant inputs for the draft tender document that is currently under stakeholder consultation as well as the upcoming tenders for offshore wind in India. The Danish approach and experience has been very helpful to advance this and has brought great value to take us forward and reach 30 GW by 2030," said Mr Dinesh Jagdale, Joint Secretary, Ministry of New and Renewable Energy

The joint studies have been developed under the Centre of Excellence for Offshore Wind and Renewable Energy. The centre is a joint initiative between the Indian Ministry of New and Renewable Energy and the Danish Energy Agency aiming to support the ambitious Indian target of 30 GW offshore wind in 2030.

*"The India-Danish collaboration on energy has taken remarkable steps and is a key contributor to the Green Strategic Partnership between India and Denmark. Offshore wind will be the next step in India's green transition and with a clear and strong mandate from our two countries, India and Denmark are leading this green energy transition together, said "*H.E. Mr. Freddy Svane, Ambassador of Denmark to India

Clear pipeline for India's first offshore wind parks based on Danish experiences

The conceptual build-out plan proposes identification of 14 sites in Tamil Nadu (south east India) and 1 site in Gujarat (north west India) corresponding to the planned upcoming auctions announced in the Strategy Paper for Offshore Wind, released by Government of India in July 2022.

Moreover, the report puts forward four initial sites in Tamil Nadu for the first auction of 4 GW equivalent seabed in 2022-2023 for leasing to carryout required studies & surveys and subsequent project development under an open access model (under model-3 of the strategy paper). Adopting a relatively high capacity density would allow for up to 25 GW across the identified areas in Tamil Nadu alone. This provides a clear pipeline and contribution to the 30 GW government target for offshore wind in 2030.

In addition to spatial planning, the necessary infrastructure also needs to be in place to secure the large quantities of offshore wind. In this regard, a dedicated port infrastructure study identifies a set of ports off the Tamil Nadu and Gujarat coasts that fulfil basic navigation and access criteria to support installation of wind turbines and foundations. However, these ports require significant upgrades in key infrastructure such as quaysides and yards, which are necessary for the marshalling of wind turbine components. Therefore, a set of development alternatives are proposed for each port.

Fact box: The Maritime Spatial Planning project and port infrastructure study

The Maritime Spatial Planning is based on two separate reports - one for Tamil Nadu and one for Gujarat. The reports focus on the rough and fine screening process in the two states, including heat mapping and conceptual planning basis for the selected zones. The applied methodology is based on best practices from the Danish experiences within offshore wind development.

- The Maritime Spatial Planning project builds on the existing work carried out in the EU-supported projects, FOWIND and FOWPI, to refine and make further recommendations supporting a clear and transparent future planning and collaborative balance of interests, which will encourage investments in offshore wind.
- The port infrastructure study focuses on assessment of the viability of existing ports in Gujarat and Tamil Nadu to support up to 30 GW of offshore wind development using 15+ MW wind turbines. Based on the assessment, the project also identifies possibilities for

upgrade/development of port facilities.

The comprehensive reports can be found here.

About the Indo-Danish Centre of Excellence for Offshore Wind and Renewable Energy

Together, India and Denmark has launched a knowledge hub; The Centre of Excellence for Offshore Wind and Renewable Energy (COE) (https://coe-osw.org/). This is formalised as a joint initiative between the Indian Ministry of New and Renewable Energy (MNRE) as the host of the COE and the Danish Energy Agency (DEA) as support. The COE is an initiative under the India-Danish Energy Partnership. By bringing together industry, public authorities and civil society, the COE will play a crucial role in facilitating and accelerating the implementation of the Indian offshore wind strategy.

Through collaboration across various stakeholders, the COE aims to create a transparent, facilitating and enabling environment for offshore wind in India. This is done by developing and disseminating best available practices, methods and tools in order to minimize risk and reduce the overall cost of offshore projects.

Denmark has 24 government-to-government cooperations on energy with countries that collectively emit 70 per cent of the world's CO_2. In addition, Denmark has a number of short-term country cooperations including *The Danish Energy Transition Initiative*. By sharing and expanding knowledge and capacity in the partner countries' national authorities, policymakers are empowered to make sustainable and cost-effective energy policy decisions that support the global sustainable transition.

Contacts

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