

# **Powering Up: Need of Prioritizing Ocean-based Renewable Energy**

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Common understanding of the concept of the Blue Economy (BE) is the ocean-oriented economy. BE is a critical and sustainable economic concept, which can describe a wide area of economic activities by utilizing ocean resources. The oceans hold an immense potentials of contributing to the global energy production in terms of oil and gas, sea salt production, ocean renewable energy, blue energy (osmosis), biomass, aggregate mining, and marine genetic resources. The article discusses the initiatives undertaken by the Bangladesh government in renewable energy sector, noting challenges and proposing methods to improve the nation's economy.

## **Renewable Energy in the Blue Economy of Bangladesh**

Although its current contribution to global electricity generation is less, offshore wind power has huge potential for sustainable energy production. In Bangladesh, potential of offshore wind energy provides an alternative room for power generation to meet growing energy demand. Currently, Bangladesh wants to generate 10% of its power from renewables by 2025, with just

2% accomplished till 2023. According to the National Database of Renewable Energy report, the entire installed energy capacity in Bangladesh is at 1223.6 MW. While solar energy contributes 989.61 MW, the rest comes from different technologies including wind, hydro, biogas, and biomass (SREDA, 2024). If we want to achieve sustainable goals, then we need to increase by at least 12%. Therefore, we must carry out the necessary steps. The ability of the wind and other renewable energy resources must be increased. We must also improve our productivity in the area of sustainable energy to protect the climate and ecosystem's health. The government is also encouraged to proactively engage with academics, private organizations, and government organizations to formulate policies in this regard. Many developed nations are investing in energy that comes from different ecosystems. Bangladesh should learn from other developed countries that are moving to ocean based renewable energy production. For instance, Australia has started shifting its dependency on burning fossil fuels for electricity, which damages the environment and contributes

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to climate change to renewable energy. Although currently less than 5% of Australia's energy comes from sustainable sources, but it is predicted to rise to 8% by 2030 (Helfer et al., 2014). As an alternative, Bangladesh should try to focus on offshore wind energy.

The Bangladesh government has taken few initiatives to enhance renewable energy. Mujib Climate Plan (MCCP) is one such an initiative, which aims to increase socioeconomic growth and develop Bangladesh's resilience to climate change through green initiatives. By implementing MCCP, Bangladesh wants to produce 30% and 40% renewable energy of the total energy production respectively by 2030 and 2041 (MCCP, 2021). However, as of October 2023, just 4.61% of the target has been met. Another plan, the Integrated Energy and Power Sector Master Plan (IEPMP) 2023, sets objectives of 2.8% by 2041 and 4.4% by 2050 (IEPMP-2023, 2023). To make progress, there needs better monitoring and real-time solutions.

By invitation of the government of Bangladesh, international partners are coming forward to help Bangladesh to achieve its goal. Denmark is investing \$1.3 billion in a 500MW project near Cox's Bazar reflects an important step toward utilizing this opportunity. This effort will not only support renewable energy but also trigger the growth of Bangladesh's blue economy. With the Institute for Energy Economics and Financial Analysis predicting a \$1.7 billion annual funding required for the green transition, this investment could attract more international and local investments, moving Bangladesh towards a climate-resilient future (TBS, 2023).

In conclusion, the renewable energy will be promising and bright future for

Bangladesh. The government has to focus on effective governance due to the continually expanding need for energy. Technologies such as remote sensing and GIS technology may help to discover many prospective areas and possibilities in the blue economy of Bangladesh. It may play a vital role in identifying exact locations, lowering numerous technical obstacles for offshore wind, and renewable possibilities.

## References

- CVF & V20 Presidency of Bangladesh. (2021, September). Mujib climate prosperity plan. Decade 2030 Mujib Climate Prosperity Plan. <https://mujibplan.com>
- Helfer , F., Sahin, O., Lemckert , C. J., & Anissimov, Y. G. (2014, February). Salinity gradient energy: A new source of renewable ... ResearchGate. [https://www.researchgate.net/publication/248386405\\_Salinity\\_Gradient\\_Energy\\_a\\_New\\_Source\\_of\\_Renewable\\_Energy\\_for\\_Australia](https://www.researchgate.net/publication/248386405_Salinity_Gradient_Energy_a_New_Source_of_Renewable_Energy_for_Australia)
- Ministry of Power, Energy and Mineral Resources Government of the People's Republic of Bangladesh. (2023, July). Integrated Energy and Power Master Plan (IEPMP) 2023. Electricity Department, Government of the People's Republic of Bangladesh. [https://powerdivision.portal.gov.bd/sites/default/files/files/powerdivision.portal.gov.bd/page/4f81bf4d\\_1180\\_4c53\\_b27c\\_8fa0eb11e2c1/IEPMP%202023.pdf](https://powerdivision.portal.gov.bd/sites/default/files/files/powerdivision.portal.gov.bd/page/4f81bf4d_1180_4c53_b27c_8fa0eb11e2c1/IEPMP%202023.pdf)
- SREDA. (2024, April 4). Re generation mix | national database of renewable energy. SREDA | National Database of Renewable Energy.

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<https://ndre.sreda.gov.bd/index.php?id=4>

Report, T. (2023, November 7). Bangladesh greenlights \$1.3B wind energy project. The Business Standard. <https://www.tbsnews.net/bangladesh/energy/govt-approves-development-bangladeshs-first-offshore-wind-project-733474>