

DFPCL's Green Energy Initiatives: Pioneering Sustainability and Climate Resilience

Climate change and Green House Gas emissions are undeniably some of the most critical challenges confronting humanity today. The increase in average global temperature is closely linked to the increase in anthropogenic Carbon Dioxide Emission resulting from human activities and the energy demands of everyday life on earth. Recognizing the urgency of addressing this issue, nations worldwide have come together to combat climate change and limit global average temperature increase to 2 degrees Celsius. This commitment was solidified during COP 21 in Paris, often referred to as The Paris Agreement.

To achieve this goal, many countries have put forth their Intended Nationally Determined Contributions (INDCs), outlining their specific plans and commitments toward the 2^o C target. These contributions encompass a wide range of strategies, from renewable energy adoption to emissions reduction initiatives, with the ultimate aim of collectively mitigating the impact of climate change and promoting a sustainable future for our planet.

India has actively engaged in global climate commitments and proposed the INDC's following the Paris Agreement. The country pledged to enhance its contributions during the COP 26 conference held in Glasgow in 2021. During this event, Prime Minister Mr. Narendra Modi unveiled the 'Panchamrit' Strategy, outlining India's ambitious endeavors to align with global objectives. Among the five key elements of this strategy, a significant focus was placed on increasing the renewable electricity capacity to 500 GW by 2030. This ambitious target not only underscores India's commitment to use green energy but also aligns with global efforts to combat climate change and transition toward a sustainable future.

Deepak Fertilisers And Petrochemicals Corporation Limited's (DFPCL) vision to develop safe and sustainable products aligns seamlessly with the India's national goals in the fight against climate change. As nation actively pursues sustainability and environmental stewardship, DFPCL's strategic focus on seizing green business opportunities is both timely and essential. Company is committed to greening the energy grid, which contributes to a cleaner and more sustainable energy ecosystem. Additionally, DFPCL is dedicated to exploring innovative pathways for product development, ensuring that its offerings are not only safe but also environmentally responsible. In doing so, company contributes to a greener future and also stays at the forefront of an industry increasingly emphasizing on sustainability.

DFPCL's Talaja manufacturing operations are integral to company's product portfolio, producing a range of critical products including Isopropyl Alcohol, Nitric Acid, Ammonia, NPK Fertilizers, ANP Fertilizers and Technical Ammonium Nitrate. This manufacturing facility stands as company's largest production hub, signifying its strategic importance. To support its operations at the K1-K8 Plots of Talaja, the facility has a contracted electricity demand of 14 MVA from the grid, with a peak demand of 12 MVA. Here, in keeping with its commitment to sustainability and renewable energy adoption, DFPCL has identified and harnessed the opportunity to enhance its green power utilization. Currently, an impressive 40% of the electricity demand for DFPCL's Talaja Operations is met through renewable sources. This achievement is made possible through two key initiatives. The first involves the operation of eight wind mills increasing a combined installed capacity of 10 MW, which DFPCL operates in Dhule and Nandurbar in Maharashtra. The second initiative centers on an Open Access Agreement with M/s Avaada Energy for Solar electricity, with a substantial agreement for 5.39 MW installed capacity in place, extending until 2046.

With a combined installed capacity of 15.39 MW, these projects are actively contributed to reduction of conventional grid electricity usage at DFPCL Talaja _ K 1 . Conventional grid electricity typically carries a higher Carbon Dioxide foot print due to its mix of fossil and non-fossil sources, whereas solar and wind electricity have virtually zero CO₂ emissions, (0 kg CO₂per kwh.)

In FY23, renewable electricity accounted for 42% of the total electricity consumption in K1-K6 Operations. (2.3 crore units) This significant shift to renewables allowed DFPCL to prevent the emission of around 18,745 MT¹ of CO₂ during FY23

DFPCL's dedication to green energy and sustainability not only aligns with global climate objectives but also positions the company as a pioneer in an industry increasingly prioritizing sustainability as a driver of success. As we collectively strive for climate resilience, DFPCL's initiatives and commitments serve as a shining example of industry leadership and environmental responsibility.
