August 2023 Edition



SECTOR SPECIFIC REPORT

(Energy)



Policies Covered In The Edition

India reviewed Strategic Clean Energy Partnership (SCEP) with the USA

IESS 2047 Tool Released by NITI Aayog to Facilitate Analytical Assessment of India's Green Energy Transition India Climate Energy Dashboard (ICED) 3.0 is Live to Track Climate Action Progress

India Hosted Clean Energy Ministerial and Mission Innovation Meeting to Advance Global Energy Transition Efforts International Conference on Green Hydrogen (ICGH-2023) Giving Platform to Recent Advances and Technology Adaption in Green Hydrogen Value Chain

Eminent's Insight

India reviewed Strategic Clean Energy Partnership (SCEP) with the USA

India reviewed **Strategic Clean Energy** Partnership (SCEP) with the USA in July 2023 and agreed to the maximum operation of clean energy. Both countries have extended their dedication towards sequential and sustainable energy switches focused on authentic, economical, and upright energy demand. The growing significance of bilateral energy cooperation has been constantly gauging new heights in the energy trade alliance through SCEP.



Source: https://www.dailyissues3.com/2021/10/india-us-strategic-clean-energy.html

The India-USA association has seen major growth in enabling green collaboration to mobilize clean energy technology and related investment.



Source: https://www.energy.gov/sites/default/files/2022-10/SCEP%20RE%20Pillar%20FINAL.pdf

The five pillars of the SCEP towards heightening the cooperation between the Public and Private sectors to support decarbonization in both countries, including through public-private task forces, etc have also been discussed.



The sides reviewed the SCEP delegation, and clean energy work courses, including clean and renewable energy, energy technologies, gas hydrates, advanced biofuels, and hydrogen. They recognized the significance of producing green/ clean hydrogen as a critical energy source for global decarbonization and agreed to support each other's public hydrogen operations.



Source: https://www.energy.gov/sites/default/files/2022-10/SCEP%20RE%20Pillar%20FINAL.pdf

These renewable energy pillars have designated objectives to drive equitable economic development in the quest for **India's energy security transition through broader opportunities available in South Asia and the Indo-Pacific region**. The partnership will look into the sustainable development of renewable energy capacity development as per the national circumstances and priorities of both countries at large.





The partnership will work with a focused approach on some of the identified pivotal areas especially in the area of electrification and decarbonization to promote energy justice. The active engagement of stakeholders from the e-mobility sector will also be encouraged to promote emerging clean energy technologies as one of the priorities.



Ultimately, the SCEP program has affirmed the continuous support to decarbonize the various sector, and healthy growth of the energy market for both sides. It will expedite the work under the SCEP for a green assured future with rising energy demands.

IESS 2047 Tool Released by NITI Aayog to Facilitate Analytical Assessment of India's Green Energy Transition

On 20 July 2023, NITI Aayog launched India Energy Security Scenarios 2047 (IESS 2047 V3.0) tool in collaboration with UK Government. It is an open-source user-friendly tool to revolutionize the Indian energy landscape. The analytical and modeling techniques of this platform are helping to assess the effect of green energy policies covering cost, land, emissions, and water requirements till 2047. It will also keep a watch on climate change and search for possible ways to achieve net zero targets.



The tool works in the capacity to explore the future of alternative fuel. Here, the researchers and policymakers work on diverse energy models at national and international levels and **share user-friendly depictions of energy sector demand/supply outlines based on user input every five years between 2012-2047**.





Source: https://www.pib.gov.in/PressReleasePage.aspx?PRID=1941098



Primary Energy Supply 2000 1500 1000 Mtoe 500 0 2022 2032 2037 2042 2047 2020 2027 Oil and petroleum products Renewables and Clan Energy Coal





Source: https://www.pib.gov.in/PressReleasePage.aspx?PRID=1941098

The web version of the tool offers user-friendly graphical representations of energy demand and supply scenarios based on user choices.

Demand Electrification Energy Emissions intensity to GDP 45% 40% 15 35% <g CO2e/1000INR</pre> 30% 10 25% 20% 5 15% 10% 5% 0 2022 2027 2032 2037 2042 2047 0% 2022 2027 2032 2037 2042 2047 Year

Source: https://www.pib.gov.in/PressReleasePage.aspx?PRID=1941098 Source: https://iess2047.gov.in/

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NITI Aayog is continuously working with IIT Bombay to enhance the functionality of the IESS tool. The aim is to provide the complete range of prospective energy scenarios for the demand/supply sectors.

The energy sector at present time is in the middle of a transformation towards renewable energy sources, and the major fields that demand it are agriculture, industries, and transport. They play a vital role and directly impact the Indian economy. The flexibility and user-friendliness of the tool help in decision-making for drafting result-oriented policies towards the green energy transition further assisting Niti Aayog to assess policies, and the demand/supply scenarios in the country to achieve net-zero targeting by 2047.

How AG Group Resources Can Help You

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India Climate Energy Dashboard (ICED) 3.0 is Live to Track Climate Action Progress

On July 20, 2023,India's think tank body NITI Aayog (Energy Team), Vasudha Foundation, and Vistaar Digital Communication Pvt. Ltd. launched the much-awaited India Climate Energy Dashboard (ICED) 3.0 platform, driven by the G20 program. The ICED dashboard is to provide a user-friendly environment and furnish almost real-time information on verticals like climate and energy supported by 500 parameters and 2000 infographics to promote India's clean and green energy initiative.



Source: https://iced.niti.gov.in/

ICED is a powerful data-driven tool furnishing useful information which helps us to identify and zero down the problematic areas that will be able to deal with the upcoming difficult scenarios by taking appropriate decisions related to climate and energy verticals.



Source: https://iced.niti.gov.in/

Energy Flows, 2022



Source: https://iced.niti.gov.in/

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The objective of ICED is to function as the backbone for climate and energy groups, providing inclusive data from climate and energy verticals for in-depth analysis and stride India's green and clean energy initiative.



India's Renewable Energy Progress

Source: https://iced.niti.gov.in/



Source: https://vistaardigital.com/case-studies/india-climate-and-energy-dashboard/

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Sector Specific Report

Additionally, The ICED information helps India to leverage the potential of India's renewable energy requirements as this is the primary input for all the sectors of the economy.



Economy Dashboard



Source: https://iced.niti.gov.in/

It is a platform that is easy to learn, use, understand, and operate. **Its vision is to have a reliable single window to address all climate and energy challenges**. It is providing top-notch data which will help different dashboards for universal and up-to-date assessment. The data will further assist higher authorities in appropriate research, policy-making, and financial and economic institutions to meet energy and climate goals.

India Hosted Clean Energy Ministerial and Mission Innovation Meeting to Advance Global Energy Transition Efforts

The Government of India has organized the 14th Clean Energy Ministerial (CEM) and 8th Mission Innovation (MI) meeting (CEM14/MI-8) between 19th-22th July 2023 in Goa, India alongside the G20 Energy Transition Ministerial Meeting (ETMM) get-together. **The theme of the CEM14/MI-8 meeting was "Advancing Clean Energy Together"** which will bring G20 economies together for facilitating a clean energy transition.



Source: https://www.cleanenergyministerial.org/content/uploads/2023/06/cem14-mi8-final-logo-13-768x614.png

It has showcased the latest technology trend in clean energy making progress globally. The CEM platform works to boost clean energy technology at the international level by improving policies and programs learned through research advances. The backbone of the CEM platform consists of three pillars which make its operation smooth and help in the energy transition towards clean energy.

Three Pillars of CEM



This meeting has incorporated several contemporary issues related to energy transition to help the global economies to find a way forward based on best international practices among invited countries to address the various concerns related to green energy transition.

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Here, **Mission Innovation (MI) is also a worldwide first step to accelerate Clean Energy and stride** to meet Paris Agreement goals and walkway to netzero.

THREE BUILDING BLOCKS of MI



The objective of the mission is to venture into development, demonstration, and research so that clean energy can be made accessible for public consumption at affordable rates to attract urban and rural masses equivocally.

To revolutionize the clean energy innovation ecosystem and bring together stakeholders to maximize the impact, seven missions are identified which will be capable of catalyzing emerging solutions in the clean energy landscape.



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The CEM14/MI-8forum brought together many potential stakeholders such as innovators, governments, policymakers, international societies, and private players together to promise a state-of-the-art clean energy changeover to the global clean energy arena.



How AG Group Can be a Help

To identify and improve the strategic focus areas and investor offerings for your renewable energy mega project <u>Click Here</u>

International Conference on Green Hydrogen (ICGH-2023) Giving Platform to Recent Advances and Technology Adaption in Green Hydrogen Value Chain

India has set the stage to explore and accelerate the country's quest to clean energy transition by conducting the three-day **International Conference on Green Hydrogen (ICGH) 2023 between 5th July 2023 to 7th July 2023 by the Ministry of New and Renewable Energy, Government of India**. It has brought multiple stakeholders of the industry in a common platform to discuss the future course of development in the Green Hydrogen ecosystem.



Source: https://pib.gov.in/PressReleasePage.aspx?PRID=1937584

It will help in sharing knowledge regarding recent advances and technological development in the complete hydrogen value chain. This will provide an opportunity to connect the global scientific community with policy-makers, academicians, researchers, and industry giants. It will help in exploring new possibilities in the evolving green hydrogen landscape and develop various approaches to hydrogen production, storage, distribution, and end-use applications for innovation-led growth.

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Comprehensive Hydrogen Landscape

Source: https://www.weforum.org/agenda/2021/12/what-is-green-hydrogen-expert-explains-benefits/

The conference has set the stage for multifaceted research interactions related to green hydrogen to decarbonize the Indian economy through the adaption of international best practices to counter potential challenges associated with green hydrogen as a valuable renewable energy source.

Challenges Associated with Green Hydrogen



The discussions held at the conference have once again ratified India's national priorities in line with the global agenda related to energy security. The technical advancements presented were in line with the vision and objectives of India's National Green Hydrogen Mission to achieve net zero emission by 2070 and other commitments made under India's updated Nationally Determined Contributions (NDC).

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Source: https://mnre.gov.in/img/documents/uploads/file_f-1673581748609.pdf

The exchange of ideas at this conference is expected to bring new opportunities to flourish the green hydrogen ecosystem in India through the promotion of research & development. It will also open new avenues to fulfill India's ambitious targets of renewable energy capacity generation by 2030.



India is currently fulfilling 40% of its primary energy demand from imports and is trying to reduce this significantly through the adoption of green hydrogen production as one of the priority areas of r e s e a r c h & development to achieve energy

Source: https://mnre.gov.in/img/documents/uploads/file_f-1673581748609.pdf

security for the country. This international conference will bring new insight for policy formulation related to infrastructure development needed to support the adoption of green hydrogen across the sectors and attract major private investment due to a large-scale demonstration of possibilities for a sustainable energy transition paradigm to support India's growth in Amrit Kaal.

Eminent's Insight

We are pleased to note the proposed investment for construction of the inter-state transmission system for evacuation and grid integration of renewable energy from Ladakh. The policy interventions in specific fuels like green hydrogen and wind must continue for India to succeed in achieving its long-term decarbonization objectives. This is an exciting time of country's green industrial and economic transition. We continue to remain committed as strong partners to help the nation in its journey towards net zero.

Mr Mahesh Palashikar President GE South Asia

Resources

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