

# INDIA

## IN 26<sup>TH</sup> WORLD ENERGY CONGRESS, ROTTERDAM



Redesigning Energy  
for People and Planet

[www.wecindia.in](http://www.wecindia.in)



## India in 26<sup>th</sup> World Energy Congress, Rotterdam

### World Energy Council

The World Energy Council is the principal and pre-eminent global energy community network and first permanent, not for profit energy organization. WEC was formed in 1923 as an impartial, independent and practical network of energy interests, convening and facilitating leadership dialogue, promoting collaboration across borders, championing evidence and sharing new ideas.

<b>Chairperson:</b>	Dr. Mike Howard
<b>Secretary General and CEO:</b>	Dr Angela Wilkinson
<b>Headquarters:</b>	London, United Kingdom
<b>Establishment:</b>	1923

### World Energy Council, India

WEC India is one of the earliest country members of World Energy Council, having joined the Council in 1924. WEC India functions under the patronage of Ministry of Power and with the support of Ministries of Coal, New & Renewable Energy, Petroleum & Natural Gas and External Affairs.

<b>Chairman:</b>	Shri. Pankaj Agarwal, Secretary (Power)
<b>Secretary General:</b>	Shri Gurdeep Singh, CMD, NTPC Limited
<b>Address:</b>	WEC India Secretariat 7th Floor, Core-6, SCOPE Complex Lodhi Road New Delhi 110003, India
<b>Establishment:</b>	1924

### 26th World Energy Congress at Rotterdam

This centennial edition of 26<sup>th</sup> World Energy Congress was held in Rotterdam, The Netherlands from April 22<sup>nd</sup> – 25<sup>th</sup>, 2024 based on the theme ‘Redesigning energy for people and planet’. The key highlights of the event are:

- 60+ impactful sessions took place, featuring thought leaders, policymakers, creative thinkers, disruptors, and the next generation of energy leaders.
- Nearly 4,000 attendees, 350 speakers, 70 ministers, 15 mayors, and Future Energy Leaders contributed to a dynamic and information-rich programme.
- A unique exhibition with 90+ exhibitors created the space for key industry leaders to showcase the latest innovations and engage in conversations with the entire energy community.

## India Participation in 26th World Energy Congress at Rotterdam

The Indian delegation for five days event was led by Shri Pankaj Agarwal, Secretary (Power) which includes Shri Srikant Nagulapalli, Additional Secretary (Power), Shri Vivek Kumar Dewangan, Chairman & Managing Director, REC Limited, Shri Pradip Kumar Das, Chairman & Managing Director, IREDA, Shri Ravinder Kumar Tyagi Chairman & Managing Director, Powergrid, Shri Rajendra Prasad Goyal, Chairman & Managing Director, NHPC, Shri Rameshwar Prasad Gupta, Chairman & Managing Director, SECI, Smt. Parminder Chopra, Chairman & Managing Director, PFC and other officials from NTPC, PFC, Powergrid, REC, ONGC, NHPC, IREDA, SECI and WEC India.

### Day 0 – 21<sup>st</sup> April 2024, Sunday

**World Energy Council's Centennial Dinner & Awards:** A commemorative dinner was organized by the World Energy Council at the Wereldmuseum, Rotterdam to celebrate the centennial anniversary of WEC. Among the distinguished guests was the Secretary (Power), who attended the dinner. Following the dinner, Centennial Award ceremony took place, honoring His Excellency Sultan Ahmed Al Jaber, Minister of Industry and Advanced Technology, United Arab Emirates, for his leadership in conducting COP 28.

### Day 1 – 22<sup>nd</sup> April 2024, Monday

**Conference Opening Ceremony** was held at main stage of Ahoy Conference Hall with the opening remark of Dr. Angela Wilkinson, Secretary General and CEO, World Energy Council. Main outcome of opening ceremony was concentrating on trilemma of Energy Equity, Energy Security and Sustainability for the world. Various nations, contingent upon their developmental stage, may exhibit distinct requirements and preferences across the trilemma spectrum.



Figure 1. Opening Ceremony, 26<sup>th</sup> World Energy Congress

Smt. Parminder Chopra, Chairman and Managing Director, PFC, sets the tone with her thought-provoking Address on "**Closing the Finance and Technology Gap**". She captivated the audience with her transformative insights on innovations in the energy sector.

**Indian Pavilion at the 26th World Energy Congress** in Rotterdam, The Netherlands, was jointly inaugurated by Shri. Pankaj Agarwal, Secretary (Power), Govt. of India, Mrs. Reenat Sandhu, Ambassador of India to the Kingdom of the Netherlands on 22nd April 2024 in the esteemed presence of Mr Srikant Nagulapalli, Additional Secretary of power and senior officials of NTPC, PFC, Powergrid, REC, ONGC, NHPC, IREDA, SECI and WEC India.



*Figure 2. Secretary (Power), Additional Secretary (Power) with Indian Delegation*



*Figure 3. Secretary (Power), Govt. of India, Mrs. Reenat Sandhu, Ambassador of India to the Kingdom of the Netherlands inaugurating the India Pavilion*

The India Pavilion at WEC serves as a hub for showcasing innovative technologies and power generation practices, reinforcing India's commitment to environmental conservation on the global stage.



Figure 4. India Pavilion at 26th World Energy Congress

H.E Rob Jetten, Deputy Prime Minister and Minister for Climate and Energy, Kingdom of the Netherlands and Dr Angela Wilkinson, Secretary General and CEO, World Energy Council, visited the India Pavilion at the World Energy Congress. During the visit, they took keen interest in the efforts of member organization and appreciated the unique efforts for energy transition goals of India.



Figure 5. H.E Rob Jetten, Deputy Prime Minister and Minister for Climate and Energy, Kingdom of the Netherlands with Secretary (Power), Govt. of India

The day ends with a bilateral meeting between Secretary (Power) and Dr. Mike Howard, Chair of WEC, to discuss the current status of the Indian power sector.

### **Day 2 – 23<sup>rd</sup> April 2024, Tuesday**

The Secretary (Power) participated in a panel discussion titled '**faster, fairer, further: Decarbonisation with Justice,**' focusing on India's cohesive management of the trilemma. It was emphasized that India is sustaining a balance by augmenting renewable energy capacity at a rate four times greater than thermal capacity, with plans to continue thermal additions until 2035.



*Figure 6. Secretary (Power) in the Panel Discussion*

A Panel discussion attended by Additional Secretary of Power, convened to deliberate on '**Building resilience in the Asian Pacific: A new outlook on energy climate cooperation**'. Central to the discussion was the pivotal role of Asia in the global energy transition. Themes such as supply chain diversification and collaborative efforts were focal points of the discourse.



*Figure 7. Additional Secretary (Power) and other officials in the Panel Discussion*

### Day 3 – 24<sup>th</sup> April 2024, Wednesday

**Ministerial Round Table Conference** discussed how the COP28 UN Climate Change Conference in Dubai was a game changer. The Ministerial Round Table also discussed energy innovation and collaboration, and implications in managing the evolving energy trilemma trade-offs. The Round Table, held on day three of the World Energy Congress, was attended by Deputy Prime Minister and Minister for Climate and Energy Policy of the Netherlands, H.E. Rob Jetten; Secretary, Ministry of Power, Government of India, Shri Pankaj Agarwal; and senior representatives of different countries and organizations.



*Figure 8. Ministerial Round Table Conference*

During the conference, the Secretary (Power) highlighted India's pivotal role in COP28, emphasizing its significance as a policy catalyst in global energy transition. He pointed out that the G20 New Delhi Leaders' Declaration is a testimony of India's efforts for building convergence towards the COP28 renewable energy and energy efficiency commitments of doubling the global rate of energy efficiency improvements every year and of tripling the global renewable capacity by 2030. He emphasized India's Mission LiFE has been lauded for advocating sustainable lifestyles, echoing global consensus at COP27 and G20 forums. He spoke also about COP28's recognition of transitioning towards carbon neutrality, with emphasis on Carbon Capture, Utilization and Storage (CCUS) and green hydrogen.

A visit to the **Port of Rotterdam** was organized, attended by the Secretary (Power), Additional Secretary (Power) alongside senior officials of NTPC, PFC, Powergrid, REC, ONGC, NHPC, IREDA, and SECI. The Port of Rotterdam, being one of the largest and most strategically located ports in the world, offers significant opportunities for enhancing energy security, optimizing supply chains, and fostering international cooperation in the energy sector. Port of

Rotterdam authorities highlighted various energy transition initiatives taken up by them on hydrogen, CCUS and biofuels. The tour extended throughout the length of port of Rotterdam passing through various hydrogen installations, CCUS and maritime clusters.



Secretary (Power), Additional Secretary (Power) and Indian delegation were invited by the senior delegation representing the Ministry of Energy to visit the Kingdom of Saudi Arabia

Pavilion where they showcased their work on CCUS, Electric Vehicles, Green and Blue hydrogen etc. paving way towards energy transition. Later they visited Indian pavilion and saw work being done by India in Energy transition through CCUS and Green Hydrogen.



Figure 9. Secretary (Power), Additional Secretary (Power) in the Kingdom of Saudi Arabia Pavillion



Figure 10. Secretary (Power), Additional Secretary (Power) and Senior officials of Kingdom of Saudi Arabia at India Pavilion

Two panel discussions were organized by Confederation of Indian Industries (CII), one panel discussion was led by Secretary (Power), Chairman & Managing Director of Indian Renewable Energy Development Agency Ltd. (IREDA) and senior officials of other organizations. The focus point of panel discussions revolves around India's commitment to harmonizing economic advancement with environmental stewardship.



Figure 11. Secretary (Power), Chairman & Managing Director of Indian Renewable Energy Development Agency Ltd. (IREDA) and senior officials at CII Event

In the second panel discussion which was led by Additional Secretary (Power), Chairman & Managing Director of SECI and senior officials of other organizations. The discussion focused on India's evolving role in redesigning energy systems to meet the dual imperatives of ensuring access to affordable and clean energy for all while mitigating climate change and environmental degradation.



Figure 12. Additional Secretary (Power), Chairman & Managing Director of SECI and senior officials of other organizations at CII Event

Shri Pradip Kumar Das, Chairman & Managing Director of Indian Renewable Energy Development Agency Ltd. (IREDA), engaged in a panel discussion on "**The New Interdependencies: Trust, Security and Climate Resilience**". During the discussion, he shared insights into India's journey towards energy transition and underscored IREDA's crucial role in advancing renewable energy adoption within the country.

Shri R P Gupta, Chairman & Managing Director of Solar Energy Corporation of India Limited (SECI), participated in a panel discussion on "**People power: Global energy literacy by 2030?**". He shared how empowering individuals with comprehensive knowledge about energy is paramount to achieving global energy literacy.

Shri Rajendra Prasad Goyal, Chairman & Managing Director of NHPC, attended a panel discussion on "**Moving forward with the energy water-food nexus**" where he gave his valuable inputs on holistic approach that acknowledges the intricate interdependencies among the vital energy resources of India.

#### **Day 4 – 25<sup>th</sup> April 2024, Thursday**

The team led by Secretary (Power) has visited Vestas Offshore Wind facility at Ijmuiden, Netherlands. The team was taken over a crew transfer vessel to the offshore wind park Egmond aan Zee (OWEZ) which is an offshore wind farm in the Dutch part of the North Sea, located approximately 10 km from the coast near Egmond aan Zee.



*Figure 13. Secretary (Power) at Vestas offshore Visit*



*Figure 14. Vestas Offshore Wind Farms*

Shri Vivek Kumar Dewangan, Chairman & Managing Director of REC Limited, addressed the session on “**Electrifying the Pace: Renewables at Scale**”. During the session, He stressed the need for the collaborative efforts of the entire international community to phase out coal and foster a more sustainable future for everyone by providing financial and technological resources, sharing expertise and knowledge, and reducing global demand for fossil fuels.

Shri Ravindra Kumar Tyagi, Chairman & Managing Director of Power grid, took part in a panel discussion on “**Who Pays? Managing The Full Costs to Society of Energy Transition**”, where he stresses that transitioning energy systems goes beyond replacing old technology with new, involving a comprehensive assessment of societal costs, which include price, cost, and affordability. This entails considering both the capacity and willingness of individuals or societies to bear the expenses associated with the transition.

Shri Nishant Kumar Sharma, Sr. Manager NTPC, Global FEL Board Member, WEC, took part in a panel discussion on “**Co-Creating the Future: Next Generation Leadership**”, where he stress upon the relationship between the Energy Trilemma framework and the requirements of next-generation leadership. He also explained how future leadership is crucial for achieving India's aspiration to become a developed nation by 2047.

The successful four-day event of 26<sup>th</sup> World Energy Congress ended with a closing ceremony Bringing together around 5,000 delegates and 18,000 total attendees, including up to 70 Ministers and 250 C-suite speakers over four days, the World Energy Congress features an industry-defining content programme alongside a world-class exhibition and networking events. The renowned gathering touched on multiple energy issues, citing the transformations taking place in this vital field and the need to improve and modernize the management of these transformations in a fair, equitable, and sustainable manner. The participant experience includes:

- Interactive dialogues to challenge current thinking and forge new cooperation.
- Impact-focused sessions to inform the energy dialogue and drive the agenda.
- Interviews and fireside chats for visionary and innovative thinking.
- Transformational solutions showcase to share learnings and best practice.



Figure 14. Closing Ceremony of 26th World Energy Congress, Rotterdam

### **Key Takeaways:**

The India delegation, led by the Secretary, Ministry of Power, was joined by over 10 CEOs from the power sector at 26th World Energy Congress, Rotterdam

- Power demand in the developed world is seeing a resurgence after decades of stagnation. AI is the new driver of growth; a new wave of domestic manufacturing is catching up and there is a movement towards “electrifying everything”.
- Nuclear is bouncing back to meet this demand. With increasing RE, the policy focus has shifted to storage. Experts are seeing hydrogen and Carbon Capture, Utilisation and Storage (CCUS) as the future ‘must haves’ for carbon neutrality. Lack of transmission infra, cheap capital and affordability remains the common concern across the board.

- India aims to significantly increase its nuclear power capacity; 8.2GW/ 22.5GW in FY24/ FY32. It is actively pursuing technology for small modular reactors (SMRs) of 300 MW or less.
- Currently 7 CCUS pilots are running in India with indigenous technology, including one at NTPC Vindhyachal. NITI Aayog is working on an incentive scheme to develop 750MTPA of CO2 capacity by 2050.
- Given the scale of challenges in the energy sector, speakers emphasised the necessity for new forms of international collaboration. This includes joint efforts to ensure business financial viability, robust supply chains for energy transition, strategic investments in clean energy, and sharing knowledge and proprietary technologies, particularly in emerging markets.

### **Key Discussion Points of Secretary (Power) and Additional Secretary (Power):**

#### **1) Faster, Fairer, further: Decarbonization with Justice – Secretary (Power)**

##### Key Points:

- India's Climate Action Performance: India ranks among top performers in addressing climate change, achieving emission reductions ahead of schedule and surpassing its targets.
- Energy Access and Infrastructure: Significant investments have been made to enhance energy access and infrastructure, electrifying villages and households rapidly.
- Clean Energy Initiatives: India is diversifying its energy mix with a focus on renewables, aiming to reduce dependence on volatile imported energy sources.
- Focus on Energy Security: To mitigate risks associated with energy imports, India is emphasizing domestic resource use, ethanol blending, and promoting Green Hydrogen through the NGHM.
- International Cooperation and Technology Transfer: India is actively seeking international cooperation for technology transfer and promoting transnational grid interconnections to accelerate sustainable energy transitions.

#### **2) Ministerial Round Table Conference at the 26th World Energy Congress: – Secretary (Power)**

##### Key Points:

- COP28's Significance: COP28 emphasized the importance of energy innovation, collaboration, and managing trade-offs between energy security, access, and sustainability.
- India's Leadership: India, led by Deputy Prime Minister H.E. Rob Jetten, played a pivotal role, advocating for renewable energy, energy efficiency, and sustainable lifestyles.
- Global Commitments: The G20 New Delhi Leaders' Declaration highlighted India's commitment to doubling energy efficiency improvements annually and tripling global renewable capacity by 2030.

- Transition to Carbon Neutrality: COP28 emphasized transitioning to carbon neutrality, focusing on technologies like Carbon Capture, Utilization, and Storage (CCUS) and green hydrogen.

### 1) **Building Resilience Together in Asia Pacific: A New Outlook On Energy-Climate Cooperation - Additional Secretary (Power)**

Key Points:

- **Collaborative Energy Transition:** Coordinated efforts are needed for a just and secure energy transition in Asia, focusing on infrastructure investment, resilient supply chains, energy efficiency, and renewable energy deployment.
- **Resilience Practices:** Investing in renewable energy, energy storage, demand-side management, and climate resilience is essential for building resilience in energy systems.
- **Interconnectedness and Collaboration:** Recognizing the interconnectedness of global energy systems, fostering partnerships, promoting transnational grid interconnections, and creating a conducive regulatory environment are vital for clean technology investment.

**Conclusion:**

- Implications for India
- Power demand, momentum to continue.
- Transmission, upward revision in capex on the cards
- Nuclear, SMR to make debut.
- Decarbonising coal use in India to gain priority.