

U.S.-India Strategy Energy Partnership Joint Statement

July 17, 2020

In the midst of a global pandemic with an enormous human toll that is also affecting energy demand, global energy markets, and sustainable energy growth, the U.S.-India Comprehensive Global Strategic Partnership has never been more vital. Today, U.S. Secretary of Energy Dan Brouillette and Indian Minister of Petroleum and Natural Gas and Minister of Steel Dharmendra Pradhan co-chaired a virtual ministerial meeting of the U.S.-India Strategic Energy Partnership (SEP) to review progress, highlight major accomplishments, and prioritize new areas for cooperation.

Established in April 2018 at the direction of President Donald J. Trump and Prime Minister Narendra Modi, recognizing the strategic importance of energy to the U.S.-India bilateral relationship, the SEP builds upon our longstanding energy partnership and sets the stage for meaningful engagements through robust government-to-government cooperation and industry engagement.

The United States and India share an all-of-the-above approach to energy security and energy access. The SEP organizes interagency engagement on both sides across four primary pillars of cooperation: (1) Power and Energy Efficiency; (2) Oil and Gas; (3) Renewable Energy; and (4) Sustainable Growth. Through these pillars, the United States and India are working to strengthen and modernize the power grid and distribution utilities for clean, affordable, and reliable energy access; improve efficiency, flexibility, and environmental performance in the power sector; promote inclusive and sustainable economic growth through long-term energy development; enhance energy security through oil and gas trade, and infrastructure investment; advance the development, deployment, and integration of renewable energy and expand access to finance for renewable energy projects; and reduce market barriers to energy trade and investment. The SEP also supports USG efforts under the AsiaEDGE initiative, which establishes India as a strong energy partner in the Indo-Pacific region.

The two countries are also leading joint research and development (R&D) through the U.S.-India Partnership to Advance Clean Energy-Research (PACE-R) on smart grids and energy storage to increase resilience and reliability of the electric grid. Today, they announced new areas of research on transformational power generation based on supercritical CO₂ (sCO₂) power cycles and advanced coal technologies for power generation and hydrogen production, including carbon capture, utilization, and storage (CCUS). The United States briefed about continued bilateral R&D engagement on advanced civil nuclear energy technologies through the U.S.-India Civil Nuclear Energy Working Group.

Ministerial Outcomes

The sides announced a number of achievements and priorities for new work under the SEP.

Enhancing Energy Security

The sides signed a Memorandum of Understanding (MOU) to begin cooperation on Strategic Petroleum Reserves operation and maintenance, including exchange of information and best practices. They also discussed the possibility of India storing oil in the U.S. Strategic Petroleum Reserve to increase their nation's strategic oil stockpile.

Harnessing Innovation

The sides launched a public-private Hydrogen Task Force to help scale up technologies to produce hydrogen from renewable energy and fossil fuel sources and to bring down the cost of deployment for enhanced energy security and resiliency. They also signed an MOU to collaborate on India's first-ever Solar Decathlon® India in 2021, establishing a collegiate competition to prepare the next generation of building professionals to design and build high efficiency buildings powered by renewables. The sides jointly launched a collaboration between the U.S. DOE National labs and the Indian National Institutes under the Ministry of New & Renewable Energy as part of the newly launched South Asia Group for Energy (SAGE), supported by USAID, for joint research on development and deployment of advanced clean technologies.

The sides also agreed to explore possible cooperation through joint activities and information exchange on sustainable biofuel production and use, in particular, bioethanol, renewable diesel, other advanced biofuels, and discussion on possible developments in sustainable biofuels for air and sea transport. The sides also discussed information exchange in regard to policies and regulations, and other related areas of interest. Another potential area of cooperation is the promotion of bilateral investments in the private sector. The sides will also explore cooperation on utilizing the economic value of converting biowaste into biogas.

Modernizing the Power System

As India pursues its ambitious renewable energy targets and seeks to transform its energy sector, the sides are collaborating on the deployment and integration of renewable energy and new technologies into the grid; modernizing the power distribution sector; supporting state-level planning for renewable energy; deploying distributed energy technologies, electric vehicles, rooftop solar, and battery storage; redesigning markets, and increasing off-grid energy access. The two sides have been collaborating to modernize Distribution Sector through various reform measures for achieving reliable quality 24X7 power supply through increased private participation; enhancing consumer centricity; deployment of Smart Meters across India; and, establishing Smart Grid Knowledge Centre in India as a "Global Centre of Excellence" for Smart Grids. USAID and the U.S. International Development Finance Corporation are developing a concept to establish a new \$25-million credit guarantee for the Small and Medium Enterprise sector to deploy rooftop solar.

Work is also underway to enhance flexible operations of coal power plants needed to address increased renewable energy penetration and variable power demand to minimize operating costs and failure risks. The sides agreed to collaborate on advanced high-efficiency coal technologies with low-to-zero emissions through carbon capture, utilization, and storage (CCUS), focusing on USDOE's Coal FIRST (Flexible, Innovative, Resilient, Small, Transformative) initiative to develop 21st Century coal energy systems.

New areas of technical cooperation include application of renewable energy in the economic sectors; development of new business models and decision-making tools for renewable energy; skill building and training programs; and adoption of emerging digital technologies and advanced IT management tools to enhance cyber security of renewable energy systems.

Enhancing Energy Efficiency and Conservation

The United States and India have been working to enhance building and appliance efficiency through enhanced building codes, design and operation of smart buildings of the future, smart meters and demand side response, as well as retrofit of buildings to improve building performance, promote energy conservation, and improve indoor air quality. The sides have also been working towards development of behavioral energy efficiency program and technical assistance for a distributed energy resources plan. The sides are also working to enhance energy efficiency in the industrial sector and will work to advance a comprehensive energy management system in accordance with ISO50001. In response to the COVID-19 pandemic, USAID and Energy Efficiency Services Ltd (EESL) jointly initiated a new activity, “Retrofit of Air Conditioning to Improve Air Quality for Safety and Efficiency” (RAISE) for healthy and energy efficient buildings. The initiative will be scaled in public sector buildings

Promoting Energy Trade and Investment

The sides noted the significant increase in bilateral hydrocarbon trade since the establishment of SEP, with the bilateral hydrocarbon trade touching US\$ 9.2 billion during 2019-20, marking a 93% increase since 2017-18, and affirmed to promote greater hydrocarbon trade between the two countries.

Through the U.S.-India Natural Gas Task Force, U.S. and Indian industry forged new commercial partnerships on innovative projects and developed a series of policy and regulatory recommendations to support the Government of India’s vision to increase the share of natural gas in India’s energy sector. The sides have also held numerous public-private dialogues to provide industry perspectives on challenges and opportunities to trade and investment across the energy sector.

The sides took note of their governments’ strong commitment to advance our civil nuclear cooperation, and welcomed recent progress on the Westinghouse commercial reactor project at Kovvada, which represents an important milestone in our strategic relationship.

The two sides agreed to support each other’s vision of national development in the energy sector and encourage investment, including sharing a list of potential projects in which the companies from both sides can be encouraged to invest.

Promoting Inclusive and Sustainable Economic Growth

The sides are working to enhance long-term energy development and plans and strategies through adoption of best practices and methodologies in energy data management; capacity building in energy modeling and promotion of low carbon technologies. Think tanks, policy researchers, NGOs and Government agencies from India would be collaborating with DOE National Labs and respective U.S. Government and private agencies to facilitate above exercise. USAID and NITI

Aayog jointly launched the India Energy Modeling Forum to build a network of modeling community and its linkage with Government for analytical work and policy making exercise.

Empowering Women in the Energy Sector

Recognizing the need for a more balanced workforce with diverse skill sets to support energy innovation and address critical energy challenges of the future, the Ministers committed to addressing gender diversity, gender mainstreaming, and promoting women's entrepreneurship across the energy sector through the SEP platform. USAID launched the South Asia Women in Energy (SAWIE) platform focused on the power sector and the sides are working to incorporate gender-focused activities across the technical pillars.

Strategic Energy Partnership teams will convene again in the near future to further develop action plans for the respective pillars of cooperation. The next Ministerial meeting will be held in 2021.

ADDENDUM

The following agreements and partnerships were announced under the U.S.-India Strategic Energy Partnership (SEP) dialogue to advance the strategic and economic interests of both countries:

- MOU between the U.S. Department of Energy and the Indian Ministry of Petroleum and Natural Gas concerning cooperation on Strategic Petroleum Reserves.
- MOU between the U.S. Agency for International Development (USAID) with Indian Society of Heating Refrigeration and Air Conditioners (ISHRAE) for professional skill development for practitioners on energy-efficient design of air conditioning systems.
- MOU between EESL, NTPC, and USAID for retrofit of buildings to improve indoor air quality, safety, and efficiency.
- USAID announced partnership with Power System Operation Corporation (POSOCO) to develop India's National Open Access Registry (NOAR).
- Statement of Intent between the U.S. Department of State and India's Ministry of Power under the Flexible Resources Initiative of the U.S.-India Clean Energy Finance Task Force to enhance the flexibility and robustness of India's grid to support the country's energy transition and mobilize the private investment to deliver reliable, low-cost power for the people of India.
- The Federal Energy Regulatory Commission (USA) and the Central Electricity Regulatory Commission in India are working to conclude an agreement to share best practices for regulating electricity and developing electricity markets.

- The U.S. Department of Commerce launched an Energy Industry Working Group for India under the Asia EDGE initiative to facilitate private sector connections and ideas for U.S.-India energy cooperation, including on innovative and disruptive technologies.
- USTDA is supporting energy access and efficiency in India through recently funded projects to implement virtual pipeline infrastructure with Arush Gas Technology Services (AGTS) and carbon capture and utilization technologies in refineries with Indian Oil Corporation Limited (IOCL).
- Release of a “Strategic Roadmap of Smart Grid Knowledge Centre to become a “Global Centre of Excellence in Smart Grids” at an industry round table held on the sidelines of the Power and Energy Efficiency pillar meeting, sponsored by the Ministry of Power of India and USAID.

Under the U.S.-India Gas Task Force:

- MOU between the Federal Energy Regulatory Commission (FERC) and Petroleum Natural Gas Regulatory Board (PNGRB) on information exchange in oil & gas regulatory frameworks.
- MOU between Bloom Energy and Indian Oil on fuel cell technology.
- Letter of Cooperation among ExxonMobil, Chart Industries IOCL on stimulating LNG demand through a virtual pipeline network and manufacturing and use of ISO containers in India.
- MOU between Agility Fuel Solutions LLC and Indrapastha Gas Limited (IGL) to explore the viability, usefulness, and feasibility of advanced clean fuel systems including Type IV cylinders in India.
- MOU between Gasway USA, Inc. and Indrapastha Gas Limited (IGL) to explore the feasibility of a pilot virtual gas pipeline project.
- ExxonMobil and GAIL have made significant progress on the MOU they signed in 2019 to enhance India’s natural gas access and are engaged in a commercial dialogue to advance LNG as fuel in heavy commercial vehicles.