

## Mr. Piyush Goyal visits Germany facilitated by Indo-German Energy FORUM

Mr. Piyush Goyal, Honourable Union Minister of State (IC) for Power, Coal, New & Renewable Energy and Mines, Government of India visited Berlin, Leipzig and Munich from May 29 to June 1 on the occasion of the international trade fair Intersolar Europe 2017. He presided over the “Indo-German Energy Dialogue” and several business roundtables on photovoltaic development in India organised on 1st June 2017 by the Indo-German Energy Forum (IGEF). Prior to this he participated in a number of business and bilateral meetings in order to strengthen Indo-German relations and exchange of know-how on renewable energies, electric mobility and sustainability.

On arrival, Mr. Goyal was welcomed by Dr. Christoph Beier, Vice Chairman, Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ), the German Development agency. GIZ complements the German Development Bank (KfW) with technical expertise, advisory services and capacity development. Mr. Goyal highlighted how India has increased its green power capacity to more than 100 GW, including Hydro and nuclear and increased its solar capacity to nearly five times of its capacity in 2014. They spoke on the availability of good technical assets in German solar companies, and long-term funding instruments. They also discussed grid balancing issues, electric vehicles development, off-grid systems, green energy corridors and long-term funding possibilities. Given the global presence of GIZ in over 130 countries, Mr. Goyal proposed a partnership with Energy Efficiency Services Limited (EESL) which can help India leapfrog and distribute energy efficiency products across the globe.

In line with Prime Minister of India, Mr. Narendra Modi’s vision of “Make in India Mittelstand (MIIM)” Mr. Goyal met German companies engaged in or exploring Make in India. During the meetings held in Berlin and Munich, the Minister highlighted how innovative companies from Germany can leverage scale and lower manufacturing costs through Make in India and Make for the World. In order to facilitate cooperative ties between German and Indian companies, Mr. Goyal recommended that International Solar Alliance (ISA) Secretariat starts holding monthly matchmaking meetings in collaboration with Industry Associations like CII, FICCI etc. These meetings would include German and Indian companies as well as financing firms.

In a detailed meeting with Dr. Barbara Hendricks, German Federal Minister for Environment, Nature Conservation, Building & Nuclear Safety (BMUB) and her delegation, Mr. Goyal reiterated how India has taken up renewable energy as an article of faith and is steadfast on its Paris commitments. Mr. Goyal also told Dr. Hendricks that India led the focus on sustainable lifestyles in the Paris agreement. Both Ministers agreed that affordable renewable energy has made achieving a greener planet - a case of opportunity sharing rather than burden sharing. Mr. Goyal also invited Germany as partner country for RE-Invest 2017, which is expected to take place in September this year.

To discuss long term affordable financing options for renewable industry in India, Mr. Goyal met Mr. Roland Siller, DG Europe and Asia from German Development Bank KfW. In order to develop the rooftop market, the Minister suggested that SECI or NTPC can take long term funding from KfW and set up rooftops on government buildings as an aggregator. Innovative structures like first loss fund creation through a surcharge on solar power were also discussed. In order to support rapid roll out of smart meters, it was suggested that REC and PFC can explore long term funding through KfW.

Additional areas for potential collaboration including underground cabling (replicating the success in Varanasi across India), global expansion of EESL through pay as you go model were also discussed.

The Minister travelled to Leipzig in the high-speed ICE train, where he discussed with Ms. Milena Oschmann, Director DB Environment of Germany's public train company, their role and fields of action in climate protection. DB now owns more than 6,000 car sharing vehicles including 700 electrically powered cars, as well as 10,000 rental bikes, including 100 e-bikes.

In Leipzig, Mr. Goyal studied electric vehicle (EV) charging infrastructure which included public fast chargers, normal chargers at homes as well as multi-functional street pole chargers with CCTV and Wi-Fi infrastructure. The city utility in Leipzig provides free electricity to EV owners in order to incentivise consumption. Innovative business models in EVs have resulted in a cultural shift so that in big cities, youngsters consider owning a car a taboo and prefer using an app based service to unlock and use the nearest EV which are available across large cities.

Further, the Minister interacted with the senior management of Fraunhofer Institute, Europe's largest applied R&D organisation as well as the CEO of Leipzig's utility. A number of their innovations in areas like Electric Mobility (storage and retrofitting buses), Industrial Data Space etc. are prospective areas that can be explored for further collaboration. Mr. Goyal invited them to setup a centre for EV research in collaboration with IIT BHU, Mumbai or Chennai and help in mass production of charging stations.

Mr. Goyal also visited the BMW's Electric Vehicle manufacturing facility near Leipzig which produces their i3 and i8 series of EVs. With a capacity of 30,000 EVs per year, the simple construction of EVs whose life (body shell) and drive (battery and motor) are literally glued together. With the setup of supporting infrastructure and advances in better technology, many Indian OEMs can explore EV manufacturing.

In Munich, the Minister participated in the Intersolar Europe 2017, one of the world's largest exhibitions for the solar industry with many exhibitors from India itself. As Chief Guest of honour at the "Indo-German Energy Dialogue" and presided several business roundtables reiterating India's resolution to take up the leadership of saving the planet from climate change. Noting Munich's aim to become a 100 % renewable energy powered city by 2025, Mr. Goyal threw a challenge to make Varanasi 100 % renewable energy powered before 2025 and beat Munich. In this way, the World's oldest city can also become the first major city to be powered fully by clean energy.

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