

SPEECH OF HON'BLE MINISTER, NEW & RENEWABLE ENERGY AT THE INAUGURATION OF THE XIX CLEANTECH FORUM "FROM IT OUT SOURCING TO CLEANTECH RESOURCING ON 8TH OCTOBER AT RENAISSANCE HOTEL, POWAI LAKE, MUMBAI

Dear Mr Nicholas Parker, Chairman and Co-Founder, Cleantech Group, Dr. Avinash Patkar, Chief Sustainability Officer, TATA Power, Mr Raj Pai, Managing Director, Global Environment Fund, Ms Jaswinder Kaur, Country Director, Clentech Group, other dignitaries on the dais, dear delegates from India and abroad, friends from media, ladies & gentlemen !!!!

I am delighted to be present here today in the inaugural session of India's first ever Cleantech Forum. I extend a warm welcome to all the delegates who have come from across the globe. I am given to understand that following its success in North America, Europe and China, The Cleantech group has recently decided to come to the high growth Indian market and has set up a country office here. I welcome the Cleantech group to India and complement Mr Parker for this initiative. I am aware that the Cleantech group is working to accelerate the development and deployment of clean technology in India. I find a great synergy of purpose as this group has also played an influential role in the development of the clean technologies by fostering their growth through information dissemination, market research and investor's networking. I feel it is very important to organize the investors community and link them with the innovators, technology and entrepreneurs' community. I wish to compliment Mr Vinod Khosla and Dr. Avinash

Patkar for their excellent presentation on the core theme of the deliberation.

02. Friends, we are meeting at an exciting phase in history when the landmark Indo-US civil nuclear deal has just been finally approved by US Legislature and is going to be a law soon. You would agree that it is a great success of UPA government, as overcoming all the vexed stumbling blocks, our visionary Prime Minister Dr. Manmohan Singh is determined to achieve India's energy security goals through clean technologies that is nuclear and renewable and we are moving systematically to harness their use.

03. During his address to the Nation on 15th August, 2008 from the Red Fort, Hon'ble Prime Minister has made his resolve amply clear by declaring his commitment to the cause of energy independence through fast track growth of renewable sources of energy - primarily solar, wind, biomass and hydro. The whole world is currently undergoing the process of transformational change and policy adjustments because of challenges of global warming and climate change on one hand and phenomenal increase in crude oil price on the other. We can now observe a global consensus and almost a total paradigm shift towards sustainable path of renewable energy based energy solutions.

04. The key drivers for renewable alternatives emerge from peculiar situation prevailing in India, for example - low per capita consumption of energy specially electricity, low access to commercial sources of energy and quest for high growth of power sector to sustain 8 to 9% of growth rate of GDP. The challenges become more formidable with crude oil prices touching the peak of \$147 a few months back. You all are aware that exceptionally high crude oil prices in the international market and insufficient domestic crude oil production have caused a

drain on country's foreign exchange reserves. Hence, the energy security issues, for the first time, have taken centre stage of national policy debate in India.

05. Renewable energy sources encompass a basket of technologies including solar, wind and biomass for both grid connected power and a large variety of off-grid applications. The National Action Plan on Climate Change released by the Prime Minister on 30th June, 2008 makes a clear statement of India's intent and resolve of controlling and reducing the carbon emissions in short, medium and long term. This necessarily implies the reduction of the use of fossil fuels particularly coal and oil for generation of energy. This is a mammoth task as 70% of our commercial energy supply depends on fossil fuels. This only shows how important clean and renewable sources of energy is going to become for our country.

06. My Ministry is making all out efforts to push accelerated development of all renewable energy sources and to realize the vast potential we have. In fact, I consider it a great fortune for our country that we are endowed with abundant renewable sources. The sun god has blessed India with the presence averaging 320 to 325 days in a year. I often jokingly say that the Sun God is always in the service of Indian people and unlike many of us, the Sun never takes Casual Leave or Sick Leave. Another advantage of renewable sources is that it is locally available and unlike fossil resources, does not have any drilling, excavation or transportation cost on recurring basis. Frankly speaking the time has now come to state that renewable resources are not just complementary alternate sources, but have come to the mainstream.

07. India was one of the first few countries to realize the critical importance of the renewable energy. Our late Prime Minister Mrs. Indira

Gandhi set up a separate department for Non-conventional Energy way back in 1982. India is one of the rare countries in the world to have dedicated exclusive ministry set up to promote clean, green and environment friendly renewable energy. I am proud to state that India also has one of the largest programme of renewable energy in the world. We are implementing a broad spectrum programme covering the entire range of new and renewable resources.

When I took over the charge of this Ministry in May 2004 I decided to give this much needed push to make renewable contributes significantly in the nation's energy mix. As a result of the concerted efforts of my team, I am very happy to inform you that the achievements upto 31st August, 2008 are quite satisfactory – we have achieved about 13,000 MW of grid interactive installed renewable power, which is around 8% of the total installed grid capacity of the country, 230MW off grid and distributed renewable power, 1.4 million solar PV lighting systems-mostly in rural areas, 2.30 million sq meters solar collector area and 4.02 million family size biogas plants. We are fourth in the world as far as wind energy is concerned with around 9500 MW wind-power. We are second after China in biogas installations. I am indeed very proud to state that a major portion of our renewable power, i.e. around 8000 MW has been achieved during the last 4 & 1/2 years of my tenure. This was possible only through a sustained push with a mix of policies and programmes, as also the wholehearted support of private investors whose response to various fiscal and financial schemes of my ministry has always been extremely encouraging.

08. Wind energy is the best success story of Government's enabling policies boosting fast track investments leading to overall success of the wind sector. India's wind power potential was assessed at 45,000 MW in 1996 when C-WET, the world's only wind energy technology institution,

set up by my Ministry in Chennai, undertook an intense resource assessment programme. This was done with identification of sites having wind power density greater than 200 Watt per Square meter, with assumption of 1% land availability in potential areas. Out of the total achievements of about 9500 MW. About 45% is the share of one state – Tamilnadu. Maharashtra, Karnataka, Gujarat, Rajasthan and Andhra are other important states. The wind turbine technology has been greatly indigenized, and is robust and mature in the country. India has emerged as a hub of manufacturing wind turbines with a capacity of over 3000 MW per annum, which is likely to increase further. The fiscal and financial concessions, especially the accelerated depreciation has led to a major push to the wind power development in India. However, I was quite concerned for entry of other serious players i.e. foreign investors and independent power producers (IPP), who were not eligible to avail the benefits of accelerated depreciation. Hence, we have come out with the policy of generation based incentives or GBI on the electricity generated by Wind Power Projects. This would encourage increased electricity generation, instead of primarily focusing on just capacity addition. This would throw open the wind sector to investors in a big way. Though this scheme is on a pilot scale for wind power projects upto 49 MW, I am very keen to up-scale it to cover all the wind energy generation projects to be set up upto December, 2011. Another scope of investment in wind sector would be re-powering of existing wind turbines. With advancement of technology, the re-powering would be achieved by installing wind energy generators of higher efficiency and capacity replacing old and small capacity wind Turbines. I am considering a scheme to incentivize the process.

09. India lies in the sunny belt of the world and has best prospects for harnessing solar energy than most other countries. Solar energy can

be deployed both in centralized and de-centralized mode. Its applications are also varied and many. It has the best capacity to provide energy access in rural areas. The exploitation of solar sources for power generation would result in considering saving in conventional electricity and use of fossil fuels. My ministry has been working for deployment, R&D and demonstration of solar energy technologies for grid connected as well as off-grid applications for the last 25 years. In January, 2008, I had announced a demonstration programme on Megawatt size grid interactive solar power generation to encourage setting up of solar power plants with solar photovoltaic and solar thermal technologies. Under this scheme generation based incentive (GBI) from MNRE up to Rs.12 per kWh for SPV and Rs,10 per kWh for solar thermal power generation was proposed. 50 MW capacity solar power projects were proposed. Seven SERCs have announced tariff for solar power. I am very happy to inform the Forum that the National Action Plan on Climate Change has identified 1,000 MW solar power generations as one of the thrust areas under National Solar Mission.

We are envisaging large scale expansion of solar power capacity 2020. We are gearing up to provide to 20 million un-reached rural households to access light energy. We also plan 20 million sqm. to be built up for green buildings and 20 million sqm. for heating applications by 2020. With the zeal and speed of a mission we want India to take a leadership position globally towards harnessing of solar resources for energy production. Manufacturing capacity has simultaneously to be developed in the country.

10. My ministry is considering various steps to boost vibrant manufacturing base for renewable energy industry. A number of manufacturers are involved in manufacture of various raw materials, components, devices and systems required by the renewable energy

sector. Several companies have been successfully manufacturing products of international standards and regularly exporting to various countries in Europe, USA and Asia etc. I am of the view that manufacturing of renewable systems, devices, components and parts could be best done in India. India has embraced new & clean technology as the new investment mantra and in many cases leapfrogging Western manufacturing infrastructure.

A far-flung, entrepreneurial diaspora funnelling world class expertise and capital into the country is helping India position itself as the preferred base of manufacturing for clean technology. Hence, I am very keen to offer the services of a SEZ- exclusively dedicated to Renewable industry .I am confident that one such SEZ would soon be taking shape at Nagpur which would be having world class manufacturing base. Coupled with the world class facilities which are coming up at Multimodal International Cargo & passenger hub(MIHAN) at Nagpur, this SEZ would attract investments of several thousand crores in manufacturing strategically important input materials, process and test equipments, devices and systems components . We would be facilitating joint ventures and technology transfers wherever necessary. In our overall scheme of incentivizing manufacturing industry of renewable energy, we plan to rationalize customs and excise duty structure, liberalized project import norms. Income tax concessions and concessional financing through IREDA .I appeal to all of you to consider investing in the dedicated renewable SEZ in Nagpur.

11. I am taking keen personal interest to promote international cooperation to facilitate transfer of technologies and exchange of information and knowledge with a view to improve the techno-economic viabilities of various renewable energy systems. We are also

encouraging cooperation at the level of research organisations along with industry partners. Wherever feasible, cooperation through bilateral and multilateral arrangements is being facilitated by my ministry. I have personally addressed several such forums of investors earlier in events organized by Euromoney, CII, FICCI and ASSOCHAM in India and abroad.

I find Cleantech Forum to be quite focussed. Mrs. Jaswinder Kaur and Mr. Razvan have given me their well researched document on business opportunities in Cleantech sector in India. I have found the presentation of Mr. Vinod Khosla quite apt as it articulates the whole range of issues concerning Clean technology sector. I am very sure that high quality deliberation will take place today and tomorrow. I request Mr. Parker to send me the summary of deliberations and actionable points so that I can get them properly scrutinized in my Ministry.

I once again welcome the delegates and extend my warm wishes for success of this Forum. I thank the organizer for giving me this opportunity to address this rich galaxy of investors and other key players of renewable sector. I am sure that with cooperation from all of you, we would be able to push renewable energy sector to the similar heights as IT and outsourcing industry. I am happy to declare this event open and wish you success in your endeavours.

Thanks
Jai Hind!!!