

Speaking at 12th International Oil and Gas Conference

December 06, 2016

Thank you very much Mr. Ivan Marten from the Boston Consulting Group, most distinguished Excellencies from Chad, South Sudan, Sudan, Uganda and Columbia. Distinguished delegates who have come in from different parts of the world for this very important PetroTech Conference, ladies and gentlemen.

I am delighted to be amongst all of you in this second ministerial session discussing hydrocarbons which will fuel the future, and what are the challenges, what are the choices before us. And I am delighted that this biannual conference has almost become now legendary. It's become an important part, a benchmark for technology expositions in this part of the world. And I must compliment my colleague Minister Shri Dharmendra Pradhan ji, for having taken this entire conference to the next level. PetroTech is organized by the Ministry of Petroleum and Natural Gas and I think the engagement level has completely taken it to the heights of modern technology being discussed, relations being developed and new businesses propositions being taken forward.

In fact, such a platform where you can exchange views and share knowledge, expertise, experience, was something which we needed to scale up to a new level. It's the 12th International Conference that is now being held and I am quite confident that the outcomes of this conference will help us in our plans for the future in the energy sector. If there is one industry which has dominated world politics, it's the oil and gas sector. Probably, even today it dominates election results and we have on as recent as last month which once again brings to fore the importance of the oil and gas sector and different narratives about climate change, different narratives about development imperatives, different narratives about business compulsions, were debated and discussed in the world's largest country in terms of, the superpower of the word. And, in some sense, the people of that country have given a verdict which fits into the narrative of this conference.

So really your meeting at a very very defining moment in world history, but despite whatever other parts of the world may do, India is one country which stands committed in this global effort to fight the problems of climate change, to ensure that we look at a sustainable future going forward. And we believe that our role in this global effort is not dependent on what any other country does, is not out of compulsion but it comes out of conviction that we need to leave behind a world which is a better place to live in for the next generation than possibly what we inherited. And, in that sense, while fossil fuels will continue to play an important role in the days to come we will have to continuously engage and look for better ways to utilize fossil fuels in a more efficient manner, bringing down the carbon emissions, bringing down its impact on the environment.

Power, of course, is an integral part of the total energy chain and all that you will discuss in the course of this Conference will have its resonance on the power sector also. I was just seeing the presentation that Ivan just put out and I saw despite the Conference being on the oil and gas sector, the focus on renewables, the focus on energy efficiency was tremendous. And, therefore, both these sectors, power and oil and gas sector, are intrinsically correlated, will have to work hand-in-hand and will have to continuously evolve with changing technologies and with the changing future.

In fact, I am reminded of what Rudolf Diesel had said, maybe a 100 years ago, when he was talking about his vision for the future. And, in some sense, this highlighted the bio-fuel industry and the importance of the bio-fuel industry even as early as in 1900. The use of vegetable oils for engine fuels may seem insignificant today, he said then. But such oils may become in course of time, as important as petroleum and the coal tar which we are using at present time. So I think he was a visionary who even though he, in some sense, was very integral to the success of this oil and petroleum sector but could visualize that we will ultimately run out of fossil fuels and will have to look at a world beyond fossil fuels. And that's the kind of engagement that the whole world is looking at now while India's oil and gas sector is continuing to be largely import-dependent, particularly, in the oil sector where we are 81% import-dependent, in gas 37%, but that also because we are not consuming gas to the extent we can. India's true

demand of gas is not being really exploited. And I do hope the engagements that you will have in the course of this conference will help us come up with a more robust policy framework to expand the use of gas in the days to come.

In fact, our Prime Minister Shri Narendra Modi is on record to say that the energy security of India is based on clean and reliable sources of energy and that is the future that we are trying to secure for the country. And that is intrinsically also linked with our own domestic sources of raw material, our domestic oil production, our domestic gas production. And I do hope the new framework that the Ministry of Petroleum and Natural Gas has brought out will encourage investments in exploration and exploitation of oil and gas resources so that India can increasingly become self-reliant, can increasingly bring down its imports in this sector.

In fact, the very recent agreement that we have seen over the last week also brings to fore the importance of India's emerging out of the shadows of import and becoming more and more domestically dependent, more and more indigenous sources of oil and gas becoming the source of our dependency for petroleum products. I even talked a lot about the falling prices of batteries and possibly the increasing relevance of electric vehicles. We in India are also very conscious of that, while electricity is a major source of concern and for that we are addressing with newer forms of clean coal, newer forms of renewable energy. I think the use of petroleum and diesel in the automobile sector is another area where this country is evolving new policies, is evolving new plans going forward which will help us cut down our consumption of oil and petroleum products and move towards electricity for powering our automobiles. And simultaneous with our efforts for energy efficiency and renewable sources of energy, a very holistic framework is being drawn up to cut down our carbon intensity per unit of GDP. And we stand committed to what we have said in Paris, the INDCs that we have espoused. The 33% reduction in carbon intensity per unit of GDP is something that India stands committed to and just taking a cue from what Ivan just presented, while India's absolute carbon emission may go up because of our increasing energy needs, our energy, the climate change impact or the carbon emissions per unit of GDP is expected to fall sharply. And one will have to look at

that figure in the context of India's development imperatives. After all, India is still much below the world standard in terms of consumption of electricity, in terms of GDP incomes per capita and we are very very conscious that as we go up the development cycle and take India to the status of a developed nation we will have to look at increasing the energy consumption per capita, we will have to look at increasing per capita incomes for the people of India. But we will have to look at that in a more sustainable manner, in a manner which does not leave on the footprints of time increasing pollution, increasing greenhouse gases beyond the bare minimum with which we can manage this development process, this increase in the people's quality of life.

In fact, biomass, bio-fuels, all of these are engagements which both the Ministry of Petroleum and the Ministry of New and Renewable Energy are working together to expand in the days to come. And we are hopeful that going forward, all these newer forms of energy will help us power our electricity and automotive needs in a more sustainable, in a more efficient manner.

You spoke about energy efficiency, that's a program on which India has taken leadership role. It's not something which we, are looking at with very small ambitions. If one was to take just the lighting load of the country and being a country which is still lower down in the development index, lighting takes up a very large part of India's energy demand. And India has taken it upon itself to convert our entire lighting load to LEDs by 2019. We have had significant success in the first one and a half year of our program. We have already been able to replace by the government program about 182 million old bulbs, the old incandescent bulbs and CFLs by LEDs. And if we take the private sector into account, at an aggregate India has probably been able to replace one-third of the total lighting by LEDs already and by 2019 we hope to be a 100% LED country, powering or lighting our country only by LEDs. In the process, reducing the electricity consumption by about 112 billion units of energy, reducing our peak load demand by about 22 GW and bringing down the electricity bills of our consumers by about 6 or 7 billion dollars. And in the whole process, reducing carbon dioxide emissions by 80 million tonnes per year, 80 million tonne reduction every year only by one LED program towards energy efficiency.

So huge amount of potential for improved efficiency despite our electricity consumption being small. Simultaneously, we are hoping to tie-up long term gas contracts with other parts of the world so that we can start powering our gas-based plants once again, many of which are running at very low levels of capacity utilization. And we do hope to see in the days to come some engagement where we can bring down our cost of gas and start powering our gas-based power plants which will not only help us use more efficient fuel for the power plants but also provide a spinning reserve, a balancing reserve to ensure that our electricity grid remains stable and remains efficient, and we can fulfill the vision of this government to provide 24x7 power for all, affordable, quality, uninterrupted and sustainable power.

We stand committed to make that happen well before our stated goal of 2022. We believe that the people of India have a right to a important utility like electricity 24x7 and this government will ensure that every village in this country gets connected by next year, every home in this country gets connected by 2019. And we ensure the ability of the power transmission system, the grid to reach power to every part of India. Wherever that is not possible to reach power through distributed networks but ensure that across India, the people of India can benefit with 24x7 energy access, farmers of India get adequate electricity so that they can till their fields, increase their productivity, increase their farm output. And every student, every hospital, every school, college gets energy access, thereby improving the quality of life of our people. And within that framework, I do believe the association with the Petroleum Ministry is very very integral to our long-term vision and plans to bring down carbon intensity. I believe our efforts towards electric vehicles, our effort towards increasing use of bio-fuels and Minister Pradhan has very successfully increased the engagement with the ethanol sector. We are now close to 5% blending on ethanol and I would look at that percentage also increasing in the days to come.

So there are significant synergies between the two sectors and I do hope those synergies can be taken to the next level in partnership with all of the stakeholders who are engaged in PetroTech and working together, we can not only meet the ambitions for a better quality of life and more power for all. But we can also do

that in a sustainable manner, in an efficient manner and in a manner which leaves behind for the people of India a roadmap which is both energy-secure and sustainable.

Thank you very much for your patience and I will forward to all my co-panelists.