

## Speaking at 5th Green Energy Summit 2017 in New Delhi

February 08, 2017

President of the Chamber, Mr Girish Pradhan, my regulator, he is regulating me and certainly I am not going to join issue with you on anything, I don't want the typical politician, regulator fight in my sector at least. Ms Jyoti Arora, all the other distinguished guests on the dais, off the dais, ladies and gentlemen.

We have now reached an inflexion point in renewable energy which will determine how we move forward to the next level. Every idea has a time when it truly arrives, and to my mind, it's not about the Paris Declaration, it's not about who runs for government, wins or loses election in any part of the world. But it's India's own desire to move towards a more environment-friendly, move towards cleaner energy, move towards a regime that provides for energy security for India. And towards that end the efforts that all of us stakeholders in the system, be it the regulator, be it government officials, be it industry participants, everybody in the entire system has worked together to create a situation, where today there is more action happening on renewables than on traditional forms of energy, traditional forms of power or even, if you ask me, in the entire energy eco-system, so much so, that even in Abu Dhabi, the buzzword is renewable energy.

And Girishji there is absolutely no doubt in my mind that this has been one sector where there has never been any friction between the regulator, policy maker or the politician or the industry stakeholders because, fortunately, we have been reasonably able to be fair to everybody. And we have a robust mechanism where the regulator sets, makes certain decisions, the policymaker usually

backs that up or has a dialogue and resolves issues rather than talking through the media. And, we have now reached a stage where we will have to start, all of us stakeholders together, looking at what next. One thing very clearly I see Mr Soni amongst us here is that India has done it a tad more sensibly than many other parts of the world in terms of planning the transmission infrastructure and grid-integration simultaneously with the rollout of renewables.

So renewable expansion and as many of you would recall, we are nearly three and a half or four times in terms of solar power generation what we were barely three years ago. We have almost exceeded our targets in the first two years of wind energy. I don't know how this year will close but, of course, Sunil Jain is having a very sharp smirk on his face. He is pointing out that next year you will see a big fall in wind energy commissioning because of bad policies of the government of India.

But I think there are three or four important elements which now have to clearly be brought out when we look at the next phase of renewable development. First, I want to make it loud and clear that if any sector has to survive and succeed it should stand on its own feet. We have to move out of the psychology and mindset of government's support, government intervention, intervention towards policy is alright but not intervention to keep subsidising and running the show for us. And personally, in whichever area I have been able to get government out of the process, whether it is the LED success, whether it is the fact that we stopped interfering in the way coal is managed or rather at least made it a transparent and equal opportunity for all process. Wherever we have got out of the system, we have found very good success.

And to my mind, solar has been another demonstration of government stepping back except towards policy, towards reducing counter-party risk by getting NTPC and SECI to initially bid out more projects. I think the success has been largely driven by all of you, with the active participation of the private sector, of corporates who have wanted to expand rapidly in that sector. And I think all the naysayers have been proven wrong.

I remember when that SunEdison case had come up, everywhere I would step out or step into a programme, the only question was solar is going to suffer, solar is going to be dead, aggressive bidding is going to kill the sector, SunEdison is going to be the harbinger of bad news and what not have you. And I was very confident because, fortunately, I have a back office which keeps checking and doing the workings and I was very confident that nothing is going to go wrong. We now have a situation where states are not signing PPAs even at those prices because they can see prices are falling further, which of course, is not a good sign. I am personally talking to the states and trying to ensure that whatever is decided is, by and large, honoured, may not always happen but we will try to ensure the sanctity.

I hope Chandrashekhar, Baban Kohli and the wind people have been able to sort out their Maharashtra mess. नहीं? सुनील जी के ना से तो लगता है नहीं हुआ है अभी तक | Sign नहीं हुआ है अभी तक? It's very sad and very very unfortunate. But, overall, to my mind, we will ultimately be seeing a situation that renewables, whether it is wind, whether it is solar, will come to a price point which will be more attractive than any other form of energy. And that's the position that we are in today. We have a wind energy bidding also. When is that going to happen? Bidding has happened, मेरे को तो reverse auction में मज़ा आता है और क्या चीज़ है, मेरे को और कुछ ध्यान में नहीं आता है |

When is the reverse auction going to happen? Any reason why they are waiting?

They were waiting for the Budget I think. The last time they were waiting for the Budget because they wanted everybody to know very clearly that there is no more concessions coming their way and then bid accordingly. So, please be sure that what has happened in this Budget is final. There is nothing coming back, any of those old sops and all are not coming back. The nation has to move forward now.

And, to my mind, what indications I have is that both solar and wind are both going to in this era of competition become very attractive for states also to expand their consumption of renewable energy. We are making an effort to get thermal energy plants technologically ready to ramp up and down much faster. We are also working with the gas industry to see if we can get longer term gas contracts, hopefully, hedged for five years or seven years, so that the gas plants can come back into operation as a spinning reserve.

As government we are also focusing on reviving some more hydro projects. A sector which I believe over the years has suffered for lack of environmental or forest clearances, local issues, land acquisition issues, RNR issues. We are trying to work through the state governments and the local areas to try and bring the hydro sector back into shape, possibly also, declare it as a source of renewable energy, which it rightly is, the whole world recognises it as renewable energy. I wonder and can't understand why at some point India decided that below 25 megawatts it's renewable, above 25 megawatts it's not renewable. It is a little bit of a silly situation to my mind. And I don't know what the regulators views on that are.

But I personally believe we should move everything into renewable energy, the entire hydro sector, I am glad to hear that. And, in this

way we are very confident that renewable energy is the way forward. Thermal will have its own space as base load, we have huge amount of capacity in thermal. We are now going to focus on scrapping all the old plants and setting up newer plants. We have also allowed tolling by which the old plants can be shut down and बावन कुल्ले जी आप इसपे गौर करिएगा, आपके जो polluting plants हैं उनको बंद करके आप tolling use कर सकते हैं कि bidding करके अपने कोयले से सस्ती बिजली बनवाके अपने राज्य में ला सकते हैं, प्रदूषण भी कम होगा और बिजली भी आपको सस्ती पड़ेगी |

So we are doing a variety of efforts to see that all the sectors work in parallel but with the larger objective of bringing down pollution, encouraging clean energy in a bigger way. Rooftop solar is one big initiative where also I am talking to the states and I hope some of you will seriously consider getting into that sector; it has huge potential, particularly since no transmission infrastructure is required, no land is required, it just goes straight into your consumption systems. And I am very very confident that while last six, eight months there has been a little bit of a period of uncertainty. More so, because states kept waiting and watching the scenario as prices fell. I am fairly confident that now we will have states once again get back into action and start signing PPAs and start giving out renewable energy contracts. As regards domestic manufacturing is concerned, we are keen to further look at any inverted duties that may still be there, there's been some effort in this Budget. But I would urge all of you and maybe the Association, the Indian Chamber of Commerce can also talk to all the stakeholders and the various sector of the renewable energy value chain to see that if there is still any inverted duty problem. We should try and bring that, set that right.

In terms of manufacturing on wind side I think we are quite self-sufficient. And once the prices get determined through tariff-based bidding and hopefully will be much more affordable for the states. Then we will see more action on the wind industry also, subject to they are being able to forecast schedule and properly forecast demand and supply patterns. If that doesn't happen Sunilji positively no state is going to use wind energy, so, unless that is made more robust and demonstrated to be truly workable I don't see states getting into wind energy easily. And I think Soniji will back me up on that. It's very important that we are being able to properly forecast what is happening on the wind power generation.

On our side I have requested the department ज्योति जी ज़रा इसपे आप कुछ final call लीजिये, whether we can move from state as a unit to regional centres, please move on that a little faster. I want that to be implemented so that wind energy also gets a boost. At the local state level it becomes difficult, particularly, for a state like Tamil Nadu. Amongst other things, even their grid becomes instable because of vagaries of the wind energy production and we do not want instability in that state, in the wind sector at least.

But having said that, one small not a suggestion also I will say a request to the regulator. I believe it is time that at the central level we stop setting tariffs for renewable energy. Renewable energy is really a subject which depends on state to state and we should insist that the regulators look at the bidding patterns and the irradiance in each state, the wind patterns in each state and let the state set up a tariff because several states are misusing the benchmark tariff set by the CERC. So, if let's say in solar I believe your benchmark tariff is Rs 5.80 today? Now it is? Not yet! So I would recommend don't give any benchmark tariff at the central level, let the states set up their own

tariff because the tariff in Rajasthan is going to be vastly different from the tariff in Andhra Pradesh. And the tariff in North-East is going to be certainly different from both of these. Now, because of that central tariff those states which are below that there is a good potential to misuse. And I am also concerned that, whereas today in my view solar tariff should fall much more drastically but I am not seeing that fall as much as I can calculate back end looking at what are the prices internationally. Only because I am worried that that tariff at the higher level is holding people back and there could even be concerns about it. So I would request you sir if you feel appropriate to consider states setting up their own tariffs looking at the local level, it will eliminate one more possible misuse.

Similarly, wind in Tamil Nadu or Maharashtra or Gujarat or in Jharkhand, everywhere it is going to be different. So, the state should determine what is a fair tariff, I am sure we have competent regulators at the state level. You can guide them, you can support their efforts to understand it if any state does not have proper technical capabilities. So, that may be one thing for the transmission to look at the regional grids. I hope you will consider this request and talk to the various regulators and see how that should go or if you want to set it up, a tariff, then it should be based state-wise, CERC putting a benchmark tariff, those states where radiance is, irradiance is above the level this can be the tariff, other states can be different. So it will have to be more, more a defined tariff looking at the vagaries of nature in different parts of the company.

Lastly, for domestic manufacturing on solar, I have been also making some enquiring and studying that and I don't know if today is only on green, it's overall, it's renewables? Are there any solar participants here? Only one? क्या बात है कोलकाता का चैम्बर है, तो एक कोलकाता की

कंपनी participate करेगी यह तो अच्छी बात नहीं है | But broadly on solar manufacturing also, I believe the time is now ripe to look at large scale manufacturing across the value chain from end to end. And what I am given to understand is if power is made available at a reasonable price, along with the land right near where the source of power is so that uninterrupted power can be transmitted, losses of transmission and all are not loaded to that cost of power then sand and cost of power being the only two ingredients will determine the cost of silicon wafers. My own understanding is that we can actually move out of subsidies and preferential treatment to domestic manufacturing if the entire value chain is attracted to India. So the sand and low-cost power helps make solar panels cheap. The cell and module manufacturers will have to re-engineer their own processes and if we can bring a, create a situation where the entire value chain is within India, then that's the way to go forward rather than looking यह cell manufacturing capacity है उसको इतना support चाहिए, module को इतना चाहिए, module और cell की mismatch capacity है, silicon पूरा import होता है, So I am given to understand that there is dumping happening in cells possibly. Whereas government support or profits are being made at the wafer manufacturing, so there are various factors related to it.

I don't see Mr Razdan. I thought Mr Razdan was also here. So maybe we could create a small committee of experts preferably then people like who understand renewable energy, both from government and the private sector study this entire manufacturing story and see what we can do. Whether government can create an enabling infrastructure through NTPC or our government companies to give low-cost or very very affordable power, give land right outside the power plants, have redundancy so that uninterrupted power can be



guaranteed, if there is a breakdown or anything in one plant whether somebody else can feed power, there is a uninterrupted flow, we can have a changeover, maybe that microsecond changeover or whatever.

But I think it's time that all of us put together, maybe Haldia ji you take a lead on that, some two-three people in this room take a lead to study, maybe fly down to China, see what's happening there, fly down to other parts of the world where technology is available. And let's crack the code on domestic manufacturing on solar. That's the message for today. I hope next time I am addressing the renewable energy sector and for one month I am very busy I am not accepting any other invitations to address. So you have one month's time till 11<sup>th</sup> of March whichever team, Jyoti you work with the MNRE and come up, there's nobody from MNRE here, it's totally a power sector-driven renewable conference. Maybe signal of the times to come probably.

So talk to MNRE and get this sorted out today only and get some of the guys who are interested, the stakeholders who are interested in manufacturing on solar. And let's get this thing by 11<sup>th</sup> of March, I want to know exactly the way forward on domestic manufacturing on solar.

Thank you very much ladies and gentlemen.