Q&A-India's renewables' pace not enough to achieve 2030 target; Paris accord commitments on track, but tech, finance still needed: Gagan Sidhu, CEEW

India's transition to renewable energy lacks pace to achieve the 2030 target, but the country is on track to meeting its Paris Agreement commitments, **Gagan Sidhu, director-Centre for Energy Finance at the Council on Energy, Environment and Water (CEEW),** told the Reuters Global Markets Forum on Friday, May 7.

"India has made some real good progress (on renewable energy) over the last five years, prompted by what I would call really solid enabling policy measures," he said.

India needs a mix of technology and finance to cut emissions, Sidhu said, adding that the South Asian nation needed to focus on the power sector, which contributes to around 40% of its emissions.

The other focus areas in emissions should be transport and agriculture, which "is big, but may not be fully addressable," Sidhu said.

Following are edited excerpts from the conversation:

Q: What is the progress of energy and renewables transition targets, and where they are versus formal commitments?

A: That's the million-dollar question! Let me focus on India. Several targets. There's 450 GW (gigawatts) by 2030 to begin with. Last year about this time, India was 86 GW, today 93 GW. If one is trying to grow 30-40 GW per year, an addition of less than 10 GW is just not enough. Slightly different from renewable energy (RE), but looking at our Paris commitments - India seems on track there. We wanted non-fossil fuel to be 40% of generating capacity by 2030. We are already 37% today. We wanted to achieve a 30%-35% reduction in emissions intensity by 2030... we've already achieved a 24% reduction by 2016 per BUR-III (third biennial update report).

Q: On cutting emissions, where do you see India's focus there going towards? And how do you see the financing and infrastructure coming together on that front?

A: Power sector has to be a focus, (with) 40% share of emissions; agriculture is big, but may not be fully addressable; and transport is the third. Mix of technology and finance required to make an emissions impact.

On an interesting note, we are already seeing Indian cement companies -- like Ultratech -- gaining a pricing advantage in international capital markets by committing to future emissions reductions.

Q: What areas do you think India is lagging in versus other major powers in RE, like China?

A: India has made some real good progress over the last five years, prompted by what I would call really solid enabling policy measures. Sovereign offtake, reverse auction for tariff discovery, solar parks - all allowed solar particularly to grow tremendously. That was the first wave of RE expansion. Maybe 1.5 wave after the previous wind growth. However, the same set of policies that brought India to 93 GW are obviously not sufficient to take it to the 16% CAGR to 450 GW.

Q: What would it take to achieve the 2030 targets? And does India even have a plan?

A: Sometimes folks tend to forget power in India comes under the purview of the centre as well as states. So, 40+ discoms (power distribution companies), 28 states. Targets are there, plans not so much. How are you going to mobilise $200 billion for generation alone has got to be a big question. The entire Indian banking system plus the NBFC (non-banking financial companies) exposure to the power sector today stands at $160 billion levels.

Of course, the above number excludes the debt capital market (DCM) element. Domestic DCM has to open up for RE, so does overseas institutional - project - finance. Latter has started - we saw a $1 billion, plus fund raise by Adani recently. The slight irony is that domestic markets seem suspicious of RE, whereas overseas finance loves the Indian RE story.

Q: What sources of RE do you see as the dominant ones by 2030, both in India and the world?

A: Solar will dominate, because it's so simple, globally and in India. Others will support.

Q: Could nuclear energy become more of a focus, or is its public perception too much to overcome at this point?

A: NIMBY (not in my backyard) is a big concern for nuclear. I would imagine it would be playing on people's minds even more under present circumstances. That can't be overcome, in my view. Even if it can, at what cost, both in terms of time and money.

Q: How can developed economies help -- both via financial aid and other sops -- emerging ones to make the transition faster, alongside themselves? And should the onus of financial aid fall on the developed countries?

A: India's Paris commitments are conditional on tech transfer and concessional finance. So yes, there is clearly a need for finance to flow to where it's needed. But after some scale we see that foreign capital automatically gets attracted to the RE story, as it has for India. So, you can say catalysing capital from developed economies, after which their private capital markets will play some role as well. Since January, I count $3 billion-plus of foreign capital that has flowed to Indian RE.

Q: How easy is the transfer/sharing of tech in this scenario?

A: That's a very good question, and difficult to achieve. So, localisation comes into the picture. Like for EVs (electric vehicles).

Last year EVs were 0.88% of vehicle sales in India. Mainly three-wheelers and two-wheelers... hardly any four-wheelers. So, when thinking EV in India, it's important to think three-wheelers, two-wheelers and buses, I think. Would you believe there are 400+ EV OEMs (original equipment manufacturers) in India?

Q: Could you give us an idea of how much of the RE financing is foreign vs domestic?

A: Domestic project finance dominates at initial – build -- stage. So, it's primarily all INR (Indian rupee) at that stage, sourced from domestic lenders. Foreign DCM – bonds -- comes into the picture to refinance that debt, which is then recycled back to local lenders.

Q: What is the future hydroelectricity in countries like India, given the alarming depletion of ground water?

A: Hydro is just so complex. So many things can go wrong. Just compare the DSCR (debt service coverage ratio) covenants imposed by lenders on hydro versus solar.