Mr. Parag Sharma
Chief Operating Officer,
ReNew Power Venture Pvt. Ltd.

Mr. Vikalp Mundra
Joint Managing Director,
Ujaas Energy Ltd.

Mr. Sanjith S. Shetty
Managing Director,
Soham Renewable Energy

ENERGETICA INDIA: **There was a recent order to decrease solar REC prices. What impact would this have had on growth in renewable energy REC projects?**

PARAG SHARMA: The effect of reduced REC prices on the wind REC project has to be necessarily seen under two different prisms - Vintage projects and New projects.

Vintage Wind REC Projects - This category of projects includes the projects which are already registered under the REC mechanism. It is important to note that these projects were conceptualised considering the REC benefits, and any retrospective change in pricing of RECs would result in major losses to them. Any change in REC Pricing would be a serious dent to the debt servicing capacity of these projects and these would eventually turn NPAs. If you recall during the last change in REC pricing, the regulator came up with the concept of vintage multiplier which recognised the vintage of a project and provided a multiplier to the REC certificate, as and when the floor price is reduced. The concept offered a viable alternative for the investor who have invested earlier. The project set up in the initial year will be entitled to higher number of certificates for the same value of electricity generated than the project coming later. However, in the recent order, the concept of vintage multiplier had also been scrapped. This impacts the financials of the vintage wind projects.

It is also important to note that the REC market has not seen any significant action and the clearance ratio has been 36.29% (Solar = 11.78%, Non-Solar = 45.10%) % in the past financial year. 1,84,39,740 (Solar and Non solar REC inclusive) RECs are still unsold (Solar REC = 52,65,148 and Non-Solar = 1,31,74,592) and the inventory is increasing by the day. Instead of focussing on reduction in prices of already unsold inventory the regulators should target RPO compliance from obligated entities which to date has been abysmally poor.

New Wind REC Projects - The present trend of the decrease in the wind tariff is making it more feasible for the utilities to buy the wind power instead of going towards REC market. The wind tariff as per the last competitive bidding is Rs. 3.46/unit. It is expected to further come down therefore there would hardly be any new REC projects in the wind sector and the REC price changes remain insignificant in this space.

VIKALP MUNDRA: In my view the order was perfectly aligned with the current capex required to put a solar plant. Revenue mix with open access sale of power plus REC makes a good investible IRR return. The already installed power plants with highercapex will lose heavily hence, a Vintage Based Multiplier (VBM) is much needed for such plants.

SANJITH S. SHETTY: The lower announced solar RECs prices were a reflection of record-low PV prices in India, which has fallen further, as there has been on a sharp downward trajectory for some time as global module prices continue to fall.

The repercussions goes far beyond the immediate reduction in revenue for the solar power plants. The loss in value of assets and reduced cash flow from RECs generated in the past will likely result in the projects becoming non-performing assets. Further, for projects set up under the accelerated depreciation mechanism, the primary business of the investor may also be impacted.

Overall, existing RECs projects will take a loss of Rs 2000 crore due to reduction in the value of existing REC inventory. This represents roughly 50% of the total value of RECs. With such a significant loss, it is likely that several projects will become NPAs.

The reduction in REC prices could likely help cash-starved power distribution companies meet theirrenewable energy purchase obligation by buying the cheaper RECs.

ENERGETICA INDIA: **Had the decrease in prices brought an increase in RECs buying from obligated entities?**

PARAG SHARMA: The utilities would have been in dilemma to either buy the RECs or directly purchase the RE power due to decrease in the renewable tariff. However, RE projects have a certain turnaround time before it gets up and running and starts supplying green power to the utility. In the interim there's a huge backlog of past RPO which stands unfulfilled by almost all discoms and obligated entities. The regulators should ensure a strict compliance mechanism and the discoms and other OEs must participate in the market.

In the past the central government had considered an amnesty scheme wherein all RPOs would be purchased by a government nominated agency and the scheme would be shut down for good. However, reduction in prices makes it attractive for buyers to purchase the required quantum and meet their obligations.

VIKALP MUNDRA: That is the whole idea behind the drastic reduction of is to make it attractive towards obligated entities (OEs). But, due to poor enforcement of RPO, such reduction was benefitting the defaulters and penalising the OEs which were diligently fulfilling the obligations. Now, I hope this will motivate OEs to

come to a clean slate, which is mandatory for them in UDAY also.

SANJITH S. SHETTY: There's no doubt that lower rates could have motivated better compliance, and this could have expanded the entire market for renewable energy suppliers. Improvement in RPO compliance by discom has been a key reason for trade of 49 lakh RECs this fiscal till date as compared to 31.39 lakh RECs traded in fiscal 2016, an increase of about 24%.

ENERGETICA INDIA: **Do you think REC, as a concept, has failed in its goal to increase renewable energy projects without government incentives?**

PARAG SHARMA: REC as a mechanism was implemented wherein energy and green attribute was traded separately. This helped to decrease the cost of the wind up to an extend as the wind developer would recover some cost from RECs market. But, eventually, REC mechanism depends upon the obligated entity. The obligated entities especially utilities should be forced to fulfil their obligation. The lack of government bodies enthusiasm to implement the obligation on the entity led to the failure of REC mechanism. As of now, more than 1 crore non-solar REC's are pending to be sold-out. REC mechanism, without government push is a total failure.

VIKALP MUNDRA: I still consider REC is a very good concept but following are the few reasons for its failure.

- Bad publicity of REC: This can be attributed mostly towards non-solar RECs and RECs from cogen plants which were set up before without any consideration of RECs before suddenly being eligible for RECs. The victim became Solar RECs.
- Poor enforcement of RPOs. Majority of OEs are directly or indirectly government owned. On the other hand, most of the of the private OEs complied with RPOs.
- Most of the states were power deficit, hence the focus was on buying power rather than RECs.
- Rapid reduction in cost of solar modules: The cost reduction made solar viable

SANJITH S. SHETTY: The Renewable Energy Certificate (REC) mechanism was introduced in India with a lot of promise for promotion of renewable energy in general and wind and solar in particular. But today it faces real challenges that seem to be vitiating the investment climate in RE sector in general and wind and solar segments in particular.

The design flaws like dependence on state policies and oncompliance with lack of long term trajectory are contributing to the weak performance of RECs.

Some other factors are:

- Absence of eligibility of off -grid RE projects for REC
- Absence of effective RPO compliance and enforcement & absence of a sunset clause
- In case of oversupply of RECs in the market, there is no remedy available in the prevailing REC framework.

The Governmental incentives would certainly help REC and help push awareness among corporate, individuals and NGOs .