



RECONNECT
ENERGY

The Energy Solutions Company

OPEN ACCESS

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Dear Reader,

The Ministry of Power (MoP) had recently released a consultation paper on the issues faced by various stakeholders, specifically DISCOMs related to Open Access.

The paper highlighted the following five main issues related to open access: frequent switching by open access consumers, determination of cross subsidy surcharge, determination of additional surcharge, standby charges and tariff rationalisation. Our main article analyses the issues and recommended solutions in detail, and finds that the paper's approach is very one-sided and potentially detrimental to the development of open access .

Trading for Non-solar REC in October saw improvement in demand. Total non-solar demand was 4.87 lakh (90.78% higher than in October 2016) and the clearing ratios on IEX and PXIL were 4.5% and 3.3% respectively.

Trade of Non-Solar RECs in November was at an all time high. The total demand was 22 lakh (745% higher than that in November 2016) and the clearing ratios on IEX and PXIL were 19.39% and 13.33% respectively.

The most recent trade session for ESCerts took place on 28th November. The price discovered in the most recent session was Rs 250/ESCert. Price dipped from Rs 1200/ESCert from the first trade session to Rs 250/ESCert in the 8th session.

Recent regulatory and other developments in the RE sector include: KERC has released an order on PPAs of wind projects defining the tariff applicable to projects commissioned till the date of release of order determining generic tariff, GERC has amended the net metering regulation, RERC determined generic tariff for solar PV and solar thermal projects and Punjab has determined tariff for FY 2017-18.

- Team REConnect





Analysis of Consultation Paper on Open Access by Ministry of Power

MoP has released a consultation paper on the issues faced in operationalisation of Open Access

The Ministry of Power (MoP) has released a consultation paper on the issues faced in operationalisation of Open Access. The paper sheds light on the current thinking in MoP as regarding the future of Open Access in the country.

The paper asserts the following:

“The introduction [of Open Access] has been largely successful in promoting competition with the incumbent distribution licensees by providing consumers access to alternate sources of power.”

It aims to identify the issues faced by various constituents and seeks to resolve the “issues that are impacting a fair play between consumers and utilities on open access/group captive.”

The paper mentions five issues being faced by various stakeholders and offers potential solutions to these issues:

The first issue identified is the **frequent shifting of Open Access Consumers**. Open Access consumers who procure energy from collective markets or power exchanges frequently switch between DISCOMs and Power Exchanges for power procurement. In order to maintain grid stability profile the DISCOMs are required to send their energy drawal schedule to the SLDC of its state. Due to the frequent switching, the energy forecast regularly deviates from the schedule. Therefore, the DISCOMs incur penalty in the form of DSM charges for deviation from the schedule.

The paper proposes to curb this issue by mandating open access consumers to schedule power for at least 24 hours.

In our opinion, the proposed solution goes against the fundamental principles of open access and the way exchange based markets work in India. Market prices are volatile, and vary from time-block to time-block. Forcing consumers to commit to mandatory purchase for 24 hours, no matter what the price, will result in consumers withdrawing from the market altogether. A better alternative is to develop a “Universal Service Obligation” (USO) concept where the distribution licensee is required to commit to provide power at all times, and being adequately compensated from taking on this obligation.

The second issue pertains to **determination of cross subsidy surcharge**. The Tariff Policy 2016 specifies that the tariff determined by the state shall reflect the cost of supply of electricity for which the tariff shall be bought within 20% of the average cost of supply. It also mentions that the Cross Subsidy Surcharge (CSS) should be capped at 20% of the tariff applicable to the category of consumers. As per the findings of the paper, the implementation of the above mentioned provisions by the SERCs has been poor and the methodology adopted by them for determination of CSS has been inconsistent over the years.

The paper has suggested that both the provisions from the Tariff Policy 2016 should be implemented by the SERCs of the states together and if for some reason, any one of the provisions could not be implemented, the second one should also not be mentioned.

Also, SERCs should follow a two step approach for the calculation of Cross Subsidy Surcharge. In the first step, SERCs should



determine CSS on Voltage wise Cost of Supply guidelines for which guidelines should be developed by the DISCOMs calculate the same. In the next step, the DISCOMs should determine CSS on the basis of Category Wise Cost of Supply for which the SERCs should develop guidelines for the calculations of the same.

The paper also proposes that differential Cross Subsidy Surcharge should be determined for peak, normal and off peak hours based on the ToD tariff.

The third issue identified by the paper is related to the **determination of additional surcharge (AS)** by the SERCs. The fixed cost component of the tariff payable to the energy generator is borne by the DISCOMs even when there are no offtakers of the energy through such source. DISCOMs are unable to recover the fixed cost component from the open access consumers. Both the Electricity Act, 2003 and the Tariff Policy, 2016 provides provisions for determination of additional surcharge on consumers. The provisions mentioned propose that additional surcharge must be applicable only if the DISCOMs demonstrate that the obligation of a licensee, in terms of existing power purchase commitments, has been and continues to be stranded.

The proposal of the commission is to have three part Additional Surcharge with each part covering the various components of the costs to be recovered.

These are: (i) stranded power under long term PPAs, (ii) stranded physical assets and (iii) cost of carrying regulatory assets or amortization of regulatory assets. It has also devised a strategy for AS determination to provide states with a consistent methodology and has raised the need to define a criteria for classifying an asset as “stranded” for the purpose of calculation of additional surcharge.

It also suggested that the surcharge for Regulatory Assets should also be payable by open access consumers based on the year till when they had availed supply from DISCOMs.

In our opinion, AS is a proxy for USO. By taking payments for stand-by capacity, the DISCOM is essentially being paid for supplying power when requested. Thus, AS should not be charged if the Discom restricts open access in any way, especially as suggested in the first point.

Further, as was pointed out by the 19th Electricity Census (Report on the Nineteenth Electric Power Survey of India, Volume - I, January, released by the Central Electricity Authority), growth of demand for power has been much lower than expected. It will be very important for policy makers and regulators to differentiate between stranded capacity due to lower demand and poor planning on part of Discom's and due to open access.

Another risk here is of AS being used by the states as another tool to make open access unviable. The calculations should be transparent and scientific, and should come with various checks and balances, otherwise AS will become another tool (like cross subsidy) for the state regulators to restrict open access.

The fourth issue determined by the commission was related to **standby charges**. The commission has ascertained that there is no consistency in the method of determination of such charges and they do not reflect upon the actual cost incurred by the DISCOMs for maintaining capacity for standby power.

The commission suggests that the charges should be determined based on the actual fixed and variable cost incurred by the DISCOMs and a limit of 125% of the tariff of that category should be applied. Also, this cost should be determined annually by the SERCs to reflect the variation over time.

The commission determined tariff rationalisation as the fifth issue faced with regards to **open access**.

Since DISCOMs bear the cost of the fixed charge component in retail tariff and it is not reflective of the actual fixed cost borne by the DISCOM, this cost is recovered in the form of Additional and cross subsidy surcharge. Another issue faced by DISCOM is when open access consumers maintain part of their contract demand with the DISCOM in order to avoid payment of standby charges.

The solution proposed by the commission for this problem is in making the tariff design transparent such that it indicates the actual break-up between fixed and variable charges. In that case, consumers having low load factor may be partially exempted from fixed charges. Credit must be given to Open Access consumers for the wheeling charges paid by them towards fixed/demand charges payable by them.

The paper says the following:

“Consumer categories with low load factor (load factor less than 15%) such as Domestic Category and Small Commercial consumers etc. may be partially exempted from fixed charges being linked to actual fixed cost liability as such consumers shall not be able to absorb the tariff reflective of actual fixed cost liability.”

This approach seems to fall in the same fallacy that has plagued the electricity markets till now, as the “partial exemption” being promoted here will result in additional burden on the commercial and industrial consumers, in turn making the switch to open access more imperative, and yet more difficult.

Conclusion:

The paper says: *“Consumer categories with low load factor (load factor less than 15%) such as Domestic Category and Small Commercial consumers etc. may be partially exempted from fixed charges being linked to actual fixed cost liability as such consumers shall not be able to absorb the tariff reflective of actual fixed cost liability”* and suggests that Direct Benefit Transfer be looked at as suggested in the National Tariff Policy 2016 (Section 8.3).

However, there is nothing suggested in this paper which either advances “rationalisation of tariffs”, or promotion of open access. The paper appears to further sharpen the tools available with Discom to restrict open access like scheduling for 24 hours or levy of additional surcharge.

In our opinion, this paper fails to look at the issues from the perspective of the consumer, and focuses only on the issues faced by Discoms. If the recommended solutions were to be implemented - like open access to be for a minimum of 24 hours; or significantly higher Additional Surcharge - this would completely eradicate open access transactions in the country. That would be a serious step backwards in the development of power markets in India.

The paper can be accessed [here](#).



KERC releases order on PPAs of wind plants:

Karnataka Electricity Regulatory Commission (KERC) released a notice stating that those PPAs of wind power projects which have not been approved by the commission till the date of the release of the order 'Revision of Generic Tariff for Wind Power Projects' dated 4th September 2017, shall be applicable at a tariff of Rs 3.74 per unit.

The previous generic tariff for wind projects was Rs 4.50 per unit. Therefore, the new projects shall incur a loss of Rs 0.75 per unit on all its projects which shall amount to a loss of 20%.

Also, the commission has decided to approve the PPAs signed by BESCO and HESCO of a total capacity of 242.50 MW commissioned up till 31st March, 2017. The commission has directed BESCO and HESCO to submit the PPAs for approval.

GERC amends net metering rooftop solar PV grid Interactive Systems Regulation:

Gujarat Electricity Regulatory Commission (GERC) has amended its Net Metering Rooftop Solar PV Grid Interactive Systems Regulation, 2016.

As per the amendment, "The Rooftop Solar PV System capacity to be installed by any Eligible Consumer's premises except Residential Consumers shall be upto a maximum of 50% of the consumer's sanctioned load/ contract demand; whereas in case of Residential

Consumers, the rooftop PV System capacity shall be irrespective of their sanctioned load/contract demand". This shall be applicable to the first 2 years of the connectivity agreement.

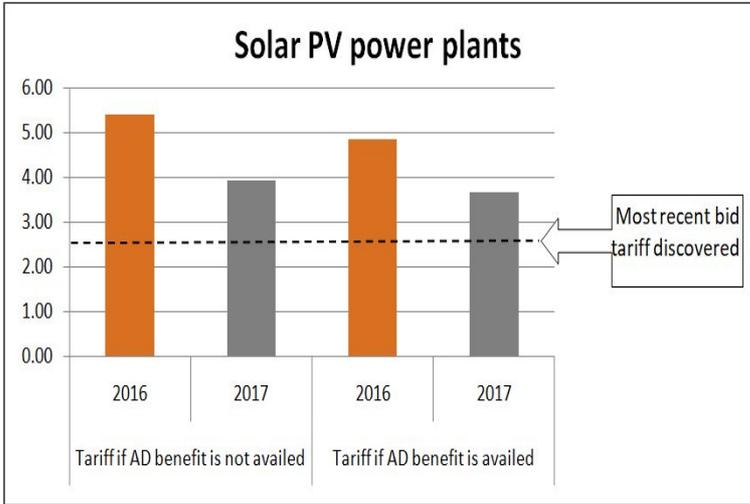
The regulation can be accessed [here](#).
The old regulation can be accessed [here](#).

RERC determines generic levelised tariff for solar PV and solar thermal projects:

The Rajasthan Electricity Regulatory Commission (RERC) has in a Suo Motu order determined the levelised generic tariff for solar PV and solar thermal projects. Following is the tariff determined in the order:

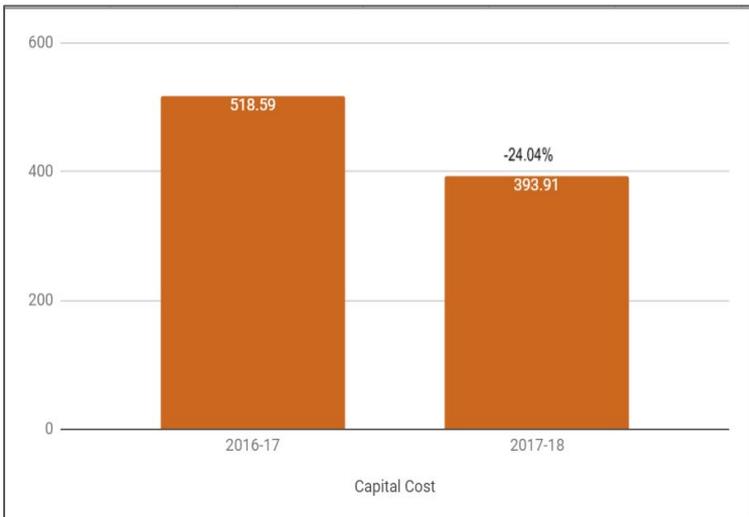
Particulars	Tariff (Ts/kWh) if AD benefit is not availed	Tariff (Rs/kWh) if AD benefit is availed
Solar PV power plants commissioned by 31/03/2019	3.93	3.66
Roof Top Solar PV installation and other small solar PV power generation plants to be commissioned by 31/03/2019	3.93	3.66





This tariff is applicable for 25 years for solar PV power plants and Rooftop and small PV plants. It shall be for purchase of solar power by distribution licensees for solar plants set up in the state. For solar plants having a capacity of 5 MW and above, tariff shall be determined through bidding process.

The capital cost has been worked out to be Rs 358 lack/MW. The order provides a break up of the parameters considered while determining this capital cost. As compared to last year, the capital cost has reduced by nearly Rs 200 lack/MW.



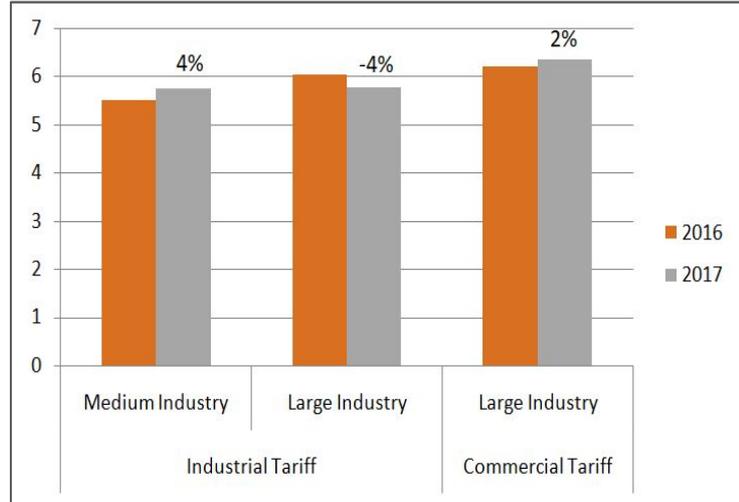
The order can be accessed [here](#).

Punjab determines tariff for FY 2017-18:

The Punjab State Electricity Regulatory Commission (PSERC) has determined the tariff for fy 2017-18. This tariff shall be applicable

from April 2017 till March 2018. The commission has implemented a two part tariff for the same this year. Consumers have been divided into those procuring permanent supply and those procuring seasonal supply of electricity. A month wise and season wise tariff has been determined as a part of the seasonal tariff.

The industrial tariff determined is as follows:



The seasonal tariff considered during season has increased by 0.23 paise for small and medium industries and decreased for large industries. Whereas the same for all industries during off season has decreased by an average of 1.12 Rs.

The order can be accessed [here](#).

TNERC revises rate of power purchase with respect to Wind Energy REC Generation:



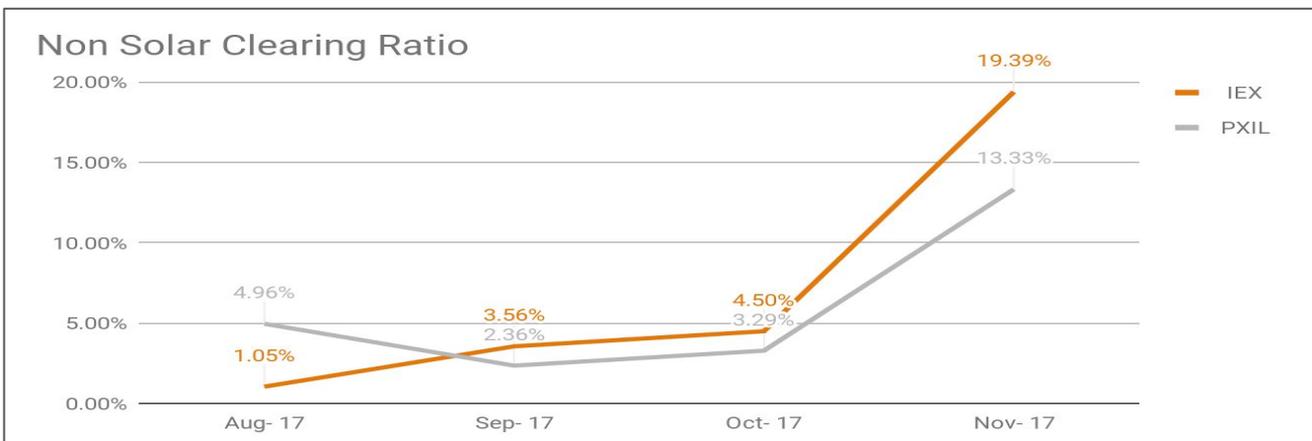
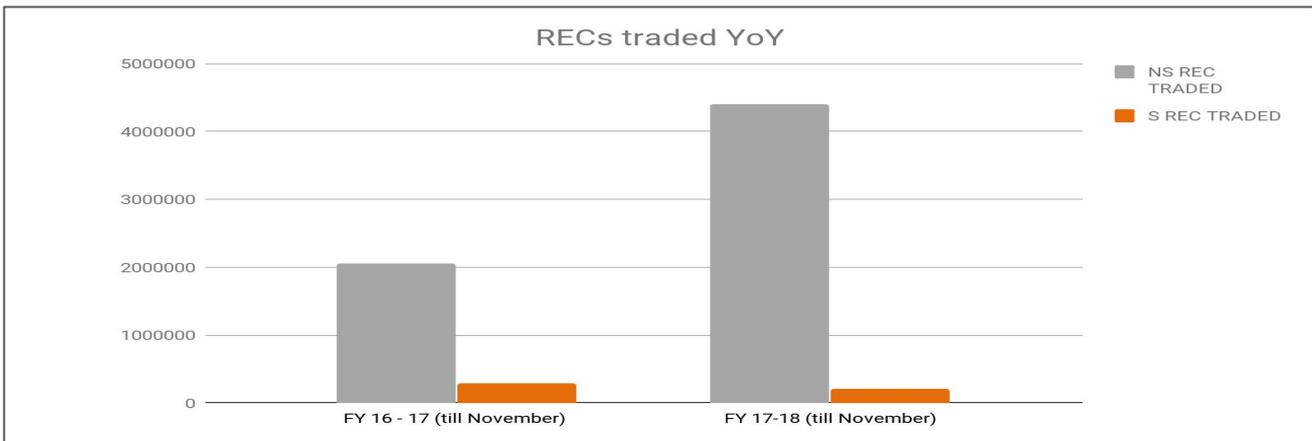
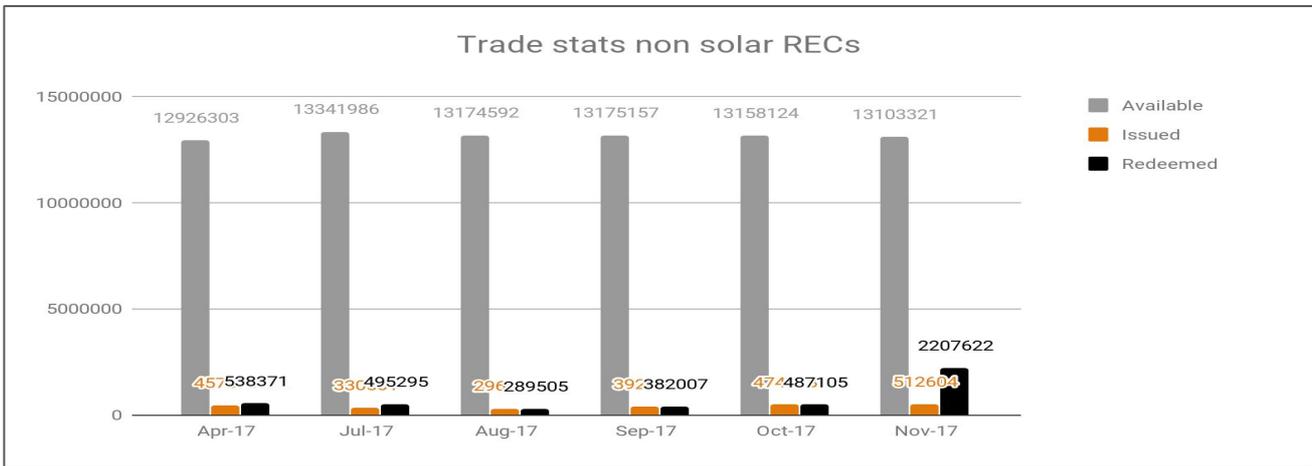
Trade Statistics

REC trade results for October and November 2017

Non-Solar RECs:

Non-solar demand was significantly higher than in November 2016, and also higher than last month. In total 22.07 lakh RECs were traded (745% higher than November 2016, and 353% higher than in October 2017), and clearing ratios on IEX and PXIL were 19.39% and 13.33% respectively. The increase in the number of RECs traded was partly because of the push by DISCOMs towards RPO compliance.

Trading of solar RECs has been suspended due to the stay imposed by the Supreme Court.



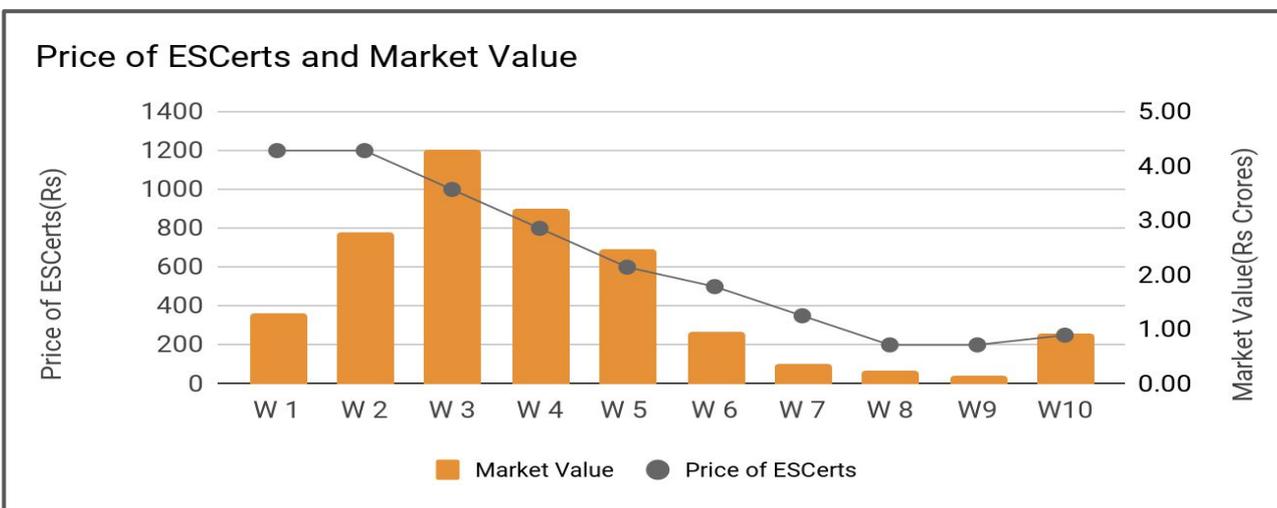
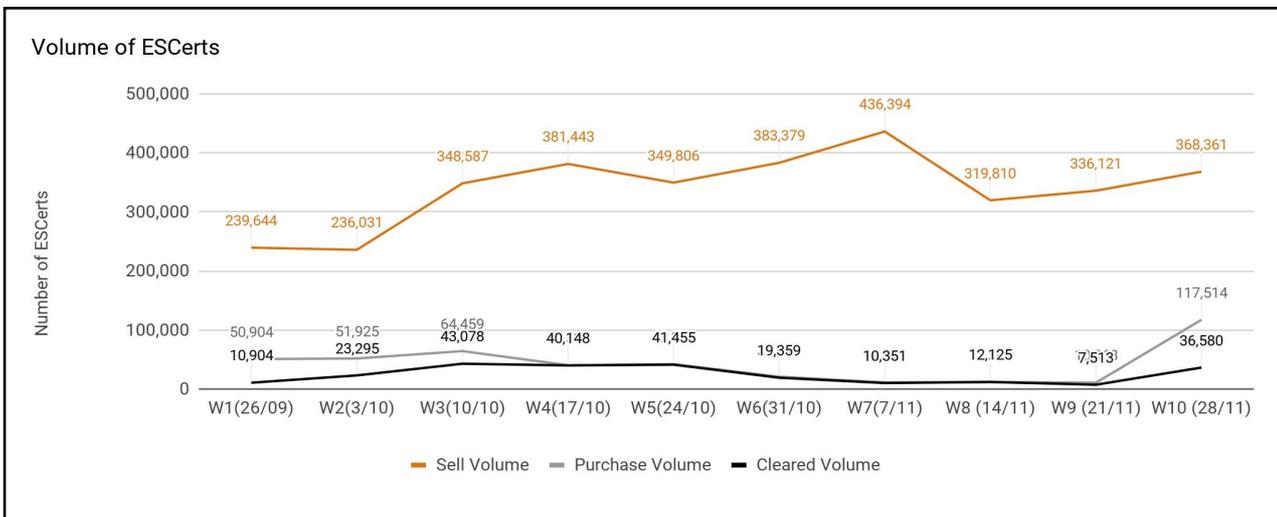


ESCerts Trading - Results:

Four trading sessions of ESCerts took place in the month of October.

In the last week (week 9), there was a demand for 10,963 ESCerts, a decrease of 10.44% from last week. This demand was against a total supply of 336,121 ESCerts (increase of 5.10% since last week). Market clearing price was determined at Rs 200/ ESCert (same as last week), with 7513 ESCerts sold (value traded reduced by 38%; the total traded value was Rs 0.15 crore).

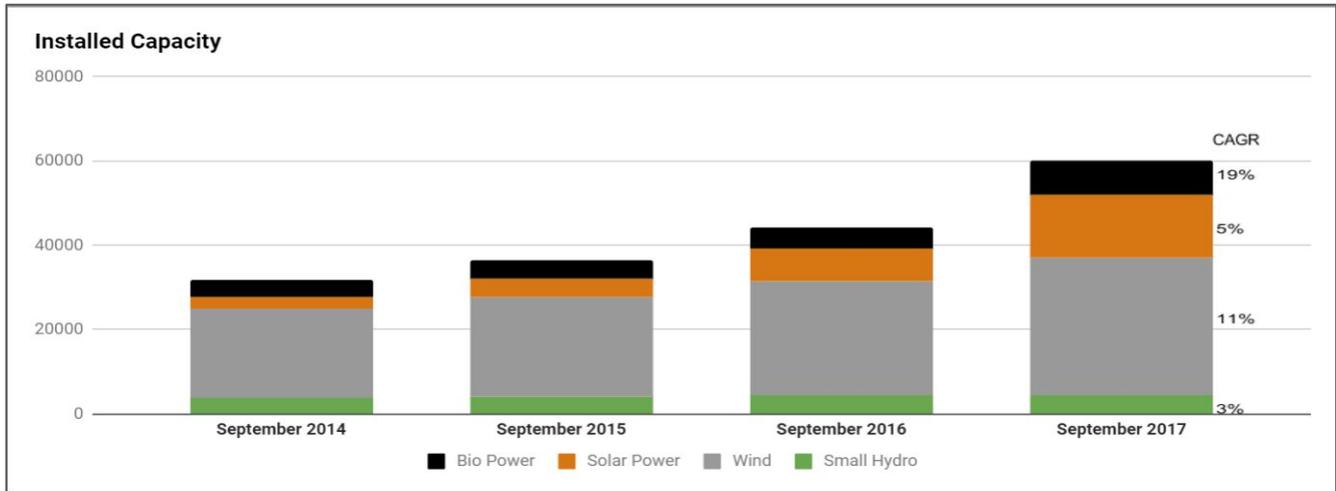
This week, there was a demand for 1,17,514 ESCerts, an increase of nearly 1000% from last week. This demand was against a total supply of 3,68,361 ESCerts (increase of 9.5% since last week). Market clearing price was determined at Rs 250/ ESCert (the price determined last week was Rs 200 per ESCert), with 36,580 ESCerts sold (value traded increased by nearly 500%; the total traded value was Rs 0.91 crore).



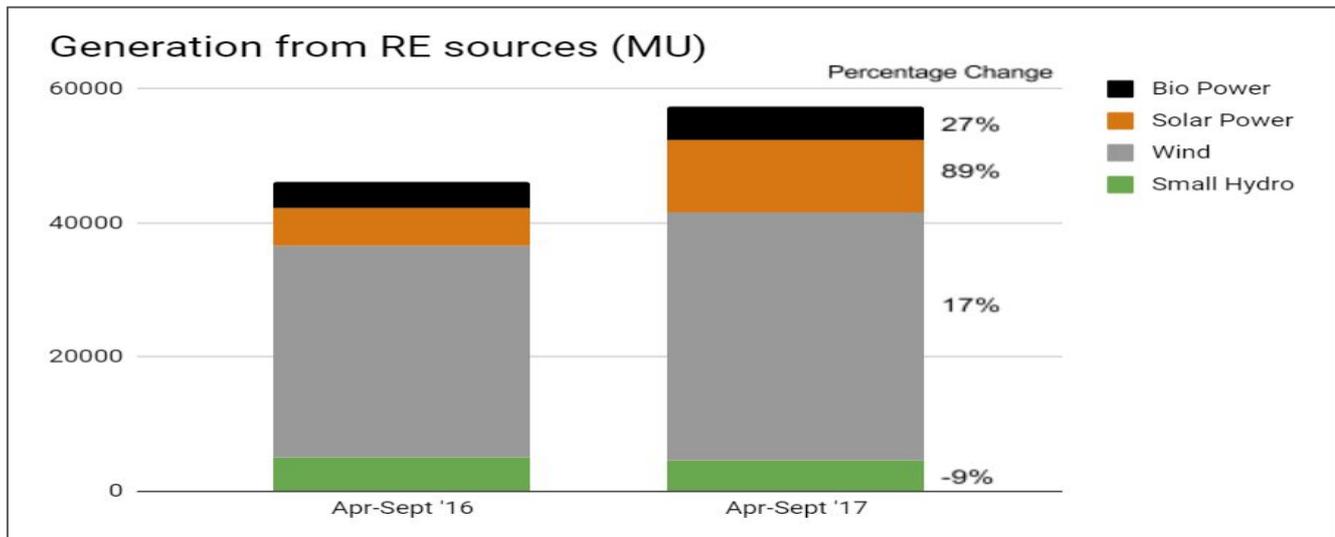


RE Generation

RE power capacity and generation statistics for the month



The Central Electricity Authority (CEA) releases monthly reports giving the installed capacity of renewable energy sources such as wind, solar, bio power and small hydro power. As per the report, the compounded annual growth rate of the installed capacity of these sources has been increasing. Installed capacity of solar power plants has grown by 5% since September 2014. A higher increase by 11% can be observed in the installed capacity of wind power plants. BioPower (including bagasse and biomass plants) has increased by 19% in the past four years. Small hydro has seen the minimum percentage growth in the past four years, by 3%.



The generation from RE sources has been following a similar trend since the past few months. The generation from solar plants has increased by 87% from April to August 2017 when compared to generation during the same time frame in 2016. Similarly, the generation from wind power plants increased by 28%. This does not come as a surprise considering how such technologies are being promoted by the government. The generation from sources such as bio-power has also shown an increasing trend of 27%.

Source: Reports from CEA





About REConnect

About REConnect Energy: REConnect Energy is India's largest renewable energy services company with services offered under energy transactions management and predictive analytics for energy markets. In predictive analytics, the Company offers its energy forecasting and scheduling services to various utilities and wind/solar project developers. The current renewable energy forecasting portfolio stands at about 10,500MW at wind/solar farm level forecast and about 26,000MW at utility scale forecast where state/regional level forecasting is provided to some of the largest utilities in India. Under renewable energy certificate (REC) market, the Company represents about 45% of the market at national level. The Company is also supported by [INFUSE Ventures](#), a venture fund supported by MNRE.

Awards & Industry Recognition

- ★ Best Indian Start-up, Indo-German Boot Camp (GIZ), Social Impact Lab - Berlin, Germany
- ★ Top 30 Global Energy Start-ups, NewEnergy Expo-2017, Astana, Kazakhstan
- ★ Top 50 Indian Start-ups, The Smart CEO - 2016, Bangalore, India
- ★ Best Wind Energy Forecaster of the Year (2014/15/16/17), Indian Wind Energy Forum
- ★ Technology Start-up Enterprise of the Year (Energy & Utilities) - 2017, 24MRC Network, India
- ★ Top 100 Global Energy Start-ups, Start-up energy transition Awards, Berlin, Germany
- ★ Times Network Award in Innovation in Digital Energy Solutions, New Delhi, May 2017

Interview Video Links

