



**TERI SCHOOL OF ADVANCED STUDIES  
PRESENTS**

**THE 8<sup>TH</sup> ANNUAL TECHNICAL SYMPOSIUM**

**REtopia  
2018**

**THEME: TRANSCENDING BARRIERS TO ENERGY ACCESS  
THROUGH RENEWABLES**

September 14-15, 2018

## **QuEst**

*Think! Resolve! Demonstrate!*

### **About the event:**

TREP - Trouble shooting Renewable Energy Problems

Think of a Solution for a real life problem faced by companies working in Renewable Energy Sector and come up with unique solutions to combat them.

### **Theme:**

Relating to Renewable Energy and Environment.

### **Rules & Timeline of the Event:-**

- Problem Statements against which solutions will be sought, are given below.
- Abstract pertaining to the solutions on any of the given Problem Statements should be sent to - [retopia@terisas.ac.in](mailto:retopia@terisas.ac.in)
- Rs 100 will be Registration Fee (which is to be paid on the day of the event) after your abstract gets approved.
- The day of the event is **15<sup>th</sup> September, 2018**.
- Word limit for abstract is 300 words.
- Only one entry per team is allowed.
- Maximum number of participants allowed per team is 3.
- Duration of the presentation on the day of the event should not exceed 12 minutes.
- In case of any dispute, the decision of the organizers would be final and binding.

For more information: [www.teriuniversity.ac.in/retopia](http://www.teriuniversity.ac.in/retopia)

Sr. No.	Problem Statement	Contributed by:-
1	<p><i>NTPC, the Country's Largest generation Utility , reported a drop in Plant Load Factor(PLF) due to idling of nearly 5,000 MW capacity in the year 2014.</i></p> <p style="text-align: center;">&amp;</p> <p><i>Country's Peak Power deficit in the month of January,2014 was 5,378 MW.</i></p> <p>The two statements are contradictory yet very thought provoking. There is a huge gap in India when comes to generation and distribution of Electricity, in terms of its reach to every consumer. In order to combat this issue and provide easy access to electricity, CERC had made provisions of OPEN ACCESS of electricity in electricity act 2003 and since there has been number of amendments in its provisions to facilitate it in its best form. In 2017, the difference between demand and supply units has been equivalent to substantial 7461 Million Units of power. Still, OPEN ACCESS of Electricity remains a challenge in INDIA. DISCUSS In detail with possible practical citations, some measures and solutions which can benefit the open access market.</p>	<p><b>WBCSD ( World Business Council for Sustainable Development)</b></p>
2	<p>With a projected peak load of 2499 TWh in 2030, the ongoing schemes of Energy Efficiency may not be sufficient in curbing energy consumption to cater to the increasing demands for energy use in India. One of the most important means for achieving energy savings is Energy Service Companies (ESCOs). Research shows that ESCOs have the potential to tap a significant portion of the energy savings market of India, which was estimated at 183.5 billion kWh per year. In 2017, the total investment potential for Energy efficiency projects was estimated between INR 93,000 - 120,000 Cr. However, only INR 1700 Cr is realized by the combined revenues of ESCOs. DISCUSS the hurdles currently plaguing the ESCO's from evolving faster in India and throw some light on the possible measures and solutions that can be taken to promote ESCO's.</p>	<p><b>AEEE (Alliance for an Energy Efficient Economy)</b></p>
3	<p>Recent reports from the likes of GTM Research have shown that the US battery energy storage market is around 95% lithium battery-based, around 0.5% lead-acid and the remainder mostly flow batteries from the likes of Primus, VIZn Energy and UNiEnergy Technologies. Energy storage has a huge relevance especially when it comes to electrical energy storage from renewables. With Li-ion Batteries still dominating the market for storage, there is a shift and possible growing space for flow batteries. Discuss in detail the various technologies of flow</p>	<p><b>Prodah Solutions</b></p>

	batteries and their possible intervention in different areas of energy storage vis a vis in competition to Li-ion Batteries.	
4	It is estimated that around 50% of global energy consumption is due to buildings and International reports show about 25 to 35% energy saving potential in commercial buildings. However, there are many hurdles which comes in the way of energy auditors while auditing a building. One of them is inconsistency of data available and inaccuracy of data collected which can lead to wrong interpretation, biased assumptions and incorrect recommendations by the energy auditors. Discuss various challenges faced by the energy auditors and possible practical solutions to overcome them.	<b>TERI Griha</b>
5	Food is considered among basic amenities essential for the sustenance and growth of an individual. In the Global Hunger Index survey of 2014, India ranked 55th out of 120 countries and this report is quite disturbing since India is one of the largest producers of food grains in the world. Still India lacks in fulfilling the basic amenities of its people. India is home of 25 per cent of hungry population. The crux of India's food problem pertains not so much on increasing food availability but with the distribution of food. Discuss in detail the idea of taking sustainable and healthy living to the large mass of Indian Population and steps that need to be taken to ensure food security for all.	<b>Edible Routes</b>
6	Against the target of 40GW of rooftop solar power capacity by 2022, India has installed just about 2.5 GW (6% of the total target) as of March 2018. One reason attributed for this stagnancy is that solar rooftop has failed to enthuse home owners. To back the ambitious target, Government of India has announced various subsidies and policies for residential buildings, however, customer acquisition and demand acquisition still appears to be a big hurdle for widespread implementation of this technology. What are the ways which can be adopted to encourage domestic customer acquisition and demand aggregation of solar rooftop?	<b>ICF</b>

For any queries contact-

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