

# Soft Landings for Renewable Energy Integration through Balancing Technologies

**Date:** 12th June, 2019

**Venue :** Shangri-La's - Eros Hotel, Ashoka Road, New Delhi, India

<b>Time</b>	<b>Details</b>
09:30-10:00	<b>Delegate Registration</b>
<b>10:00- 11:00</b>	<b>Inaugural Session</b>
	<ul style="list-style-type: none"> <li>- Welcome Address : Prof. Jyoti K Parikh, Executive Director, IRADe</li> <li>- Special Remarks : Ms Nandita Baruah, Country Representative, TAF</li> <li>- Presentation of key findings from PHES Roundtable dialogues: Shri V K Agrawal, Technical Director, IRADe</li> <li>- Address by Dignitaries               <ul style="list-style-type: none"> <li>• Shri Aniruddha Kumar, JS (Hydro), MoP, GoI</li> <li>• Shri Rod Hilton, Australia's Deputy High Commissioner to India</li> <li>• Shri K V S Baba, Chairman and Managing Director, POSOCO</li> </ul> </li> <li>- Vote of Thanks</li> </ul>
<b>11:30-13.00</b>	<b>Session 1: Renewable Energy Integration through Balancing Technologies</b>
<p>This session will cover broadly the following topics:</p> <ul style="list-style-type: none"> <li>• <i>Absorption of large RE into the Indian grid: Broad approach and strategies</i></li> <li>• <i>Towards grid balancing: Policy and regulatory frameworks in the Indian Power System</i></li> <li>• <i>Experiences from the Indian Grid towards flexibility: Demand side management, generation flexibility, grid infrastructure and storage</i></li> <li>• <i>Energy storage technologies and their techno-commercial assessment</i></li> <li>• <i>Pumped hydro energy storage (PHES) - a critical choice towards grid balancing</i></li> <li>• <i>Pumped hydro energy storage (PHES) roll out – Challenges, possible business models and way forward</i></li> </ul>	
	<p><b>Session Chair:</b> Prof. Kirit Parikh: Chairman, IRADe &amp; Former Member Planning Commission, GoI</p> <p><b>Session Co-Chair:</b> Shri P K Shukla, Chief Engineer (Hydro), CEA</p>

	<p><b>Panelists:</b></p> <p>Dr. Anoop Singh, Centre for Energy Regulation (CER), IIT Kanpur          Shri S C Shrivastava, Chief (Engineering), CERC          Shri S R Narasimhan, Director (System Operation), POSOCO          Shri Probodh Mallick, Sr. Advisor (Power), Marubeni Corporation Project Office          Prof. Andrew Blakers, ANU, Australia          Prof. Arun Kumar, IIT Roorkee</p>
14.00-15.00	<p><b>Session 2: Pumped Energy Survey Advances and Presentation of the PHEs Atlas - Professor Andrew Blakers, ANU, Australia</b></p>
	<ul style="list-style-type: none"> <li>• Storage options and capabilities towards grid balancing</li> <li>• PHEs technologies</li> <li>• Off River PHEs Survey in South Asia</li> <li>• Presentation of Global PHEs Atlas</li> <li>• Experiences of deployment of Wind, Solar &amp; PHEs in Australia</li> </ul>
15.00-16.00	<p><b>Technical Session - Development of Hydro Power in South Asia Region towards Energy Sustainability and Renewable Energy Integration</b></p>
	<p><i>This session will cover broadly the following key areas:</i></p> <ul style="list-style-type: none"> <li>• Growth and deployment of Hydro Resources in South Asian Regional Grid : A giant step towards optimising Cross Border flows and grid balancing</li> <li>• Regional Perspectives: Hydro Power for Bhutan’s Renewable Energy Ambitions</li> <li>• Regional Perspectives: Hydro Energy in Nepal</li> <li>• Regional Perspectives: Targeting 100% RE through hydro power in Sri Lanka</li> <li>• Regional Perspectives: Prospects for Hydro and renewable power resources in Bangladesh</li> </ul>
	<p><b>Session Chair:</b> Shri Brian Dawson, Climate Change and Energy Advisor, AusAID</p> <p><b>Panellists:</b></p> <p>Shri Pankaj Batra, Project Director, SARI/EI/IRADe          Representative, Bhutan          Representative, Nepal Electricity Authority          Representative, Ceylon Electricity Board          Representative, Bangladesh</p>
16:00-16:15	<p><b>Concluding Remarks</b></p>
	<p>Prof. Kirit Parikh: Chairman, IRADe          Shri S K Soonee, Advisor, POSOCO          Prof. Arun Kumar, IIT, Roorkee</p>
<p>11:00 – 11:30: Group photograph and tea break; 13:00 – 14:00: Lunch break; 16:15 – 16:30 - Tea</p>	