



**ANDHRA PRADESH**  
India's Sunrise State

**POWERING**

**Andhra Pradesh**

ENERGY INNOVATION SUMMIT 2018

28-29 November | VIJAYAWADA



# Energy Innovation SUMMIT



**Dalberg**



## I. CONTEXT

The Government of Andhra Pradesh is hosting '**Powering Andhra Pradesh**' - a global energy innovation summit to shape the future of energy in Andhra Pradesh on **28-29 November 2018** in **Vijayawada, India**.

This will be a first of its kind summit in the energy sector in a developing country that will:

- ◆ **Go beyond the most common themes** by including themes across the entire energy value chain along with cross-cutting levers such as climate change
- ◆ **Focus on innovation** and showcase cutting edge technologies in the energy sector
- ◆ **Convene future-oriented voices** by bringing global experts, investors, incubators, startups under one roof
- ◆ **Focus on communicating actionably** by using a mix of formats that can help surface concrete recommendations

Andhra Pradesh has been at the forefront of the energy sector. The state won 20+ awards in the energy sector during 2015 to 2017. From a power deficit of 22.5 MU per day in 2014, the state has managed to become a power surplus state and has lowered its transmission & distribution losses from 14% to less than 10% within a short time. It has not only been able to augment both conventional and renewable energy production but has also enhanced energy efficiency through massive installation of LED bulbs and solar pump sets.

The state has now set a challenging vision for the energy sector which includes:

- ◆ Setting up of 18 GW of renewable energy capacity by 2022
- ◆ Reducing transmission and distribution losses to less than 3%
- ◆ Ensuring 10 lakh (1 million) electric vehicles on the road by 2023, attracting an investment of INR 30,000 crores (~ USD 4.5 bn)
- ◆ Ensuring 24\*7 reliable power supply for all domestic, commercial and industrial users by 2019
- ◆ Rolling out energy efficiency measures to save 12000 MU of electricity annually

To build on this momentum, the Summit is being organized to help Andhra Pradesh achieve its vision and address gaps in the energy sector.

## II. SUMMIT OBJECTIVES

The Summit will bring together energy sector experts from a wide range of organizations including private sector, international agencies, donors, investors, independent think tanks, research institutions and governments to share technology innovations, best practices and ideas for transforming the energy landscape in the state.

**The summit's overarching vision is to make Andhra Pradesh the most live-able state for its citizens.**

Key objectives include:

- ◆ Harness relevant cutting-edge technologies to improve the energy landscape
- ◆ Develop an innovation ecosystem for the energy sector in the state with a focus on startups
- ◆ Attract investments into the state's energy sector
- ◆ Leverage global best practices to help Andhra Pradesh achieve its energy sector vision and solve energy related challenges in the state

## III. SUMMIT THEMES

The Summit is anchored around five themes in-line with Andhra Pradesh's vision and energy needs.

### Conventional Power

**Conventional power currently forms ~70% of Andhra Pradesh's total installed capacity and is expected to continue to hold a significant share in the coming years.** While conventional sources are critical, their far-reaching effects on the climate and inevitable generation make it imperative to understand how efficiency can be improved and negative effects be minimized.

### Renewable Energy

Falling prices have allowed renewables to compete with conventional sources, catalyzed capacity addition and made it possible for developing countries like India to take a lead in adding renewable capacity. **As Andhra Pradesh looks to develop a forward-looking energy strategy that includes addition of 18 GW of renewable power by FY22 and 30% renewable share in installed capacity, it will need to think about the right mix of sources.**

## Grid Upgradation and DISCOM sustainability

High T&D losses have traditionally plagued India's electricity sector. **Andhra Pradesh, even though among the leading states on this metric, has set itself a stiff target of reducing losses to below 3% from the current level of 10%.** Further, increasing renewable energy penetration and proliferation of distributed systems means the grid of the future will have to be smarter, more stable and resilient to deliver continuous and quality power. A crucial lever to implement and sustain this transformation to a smarter grid however, is the sustainability of DISCOMs and their ability to operate reliably and profitably in future electricity markets.

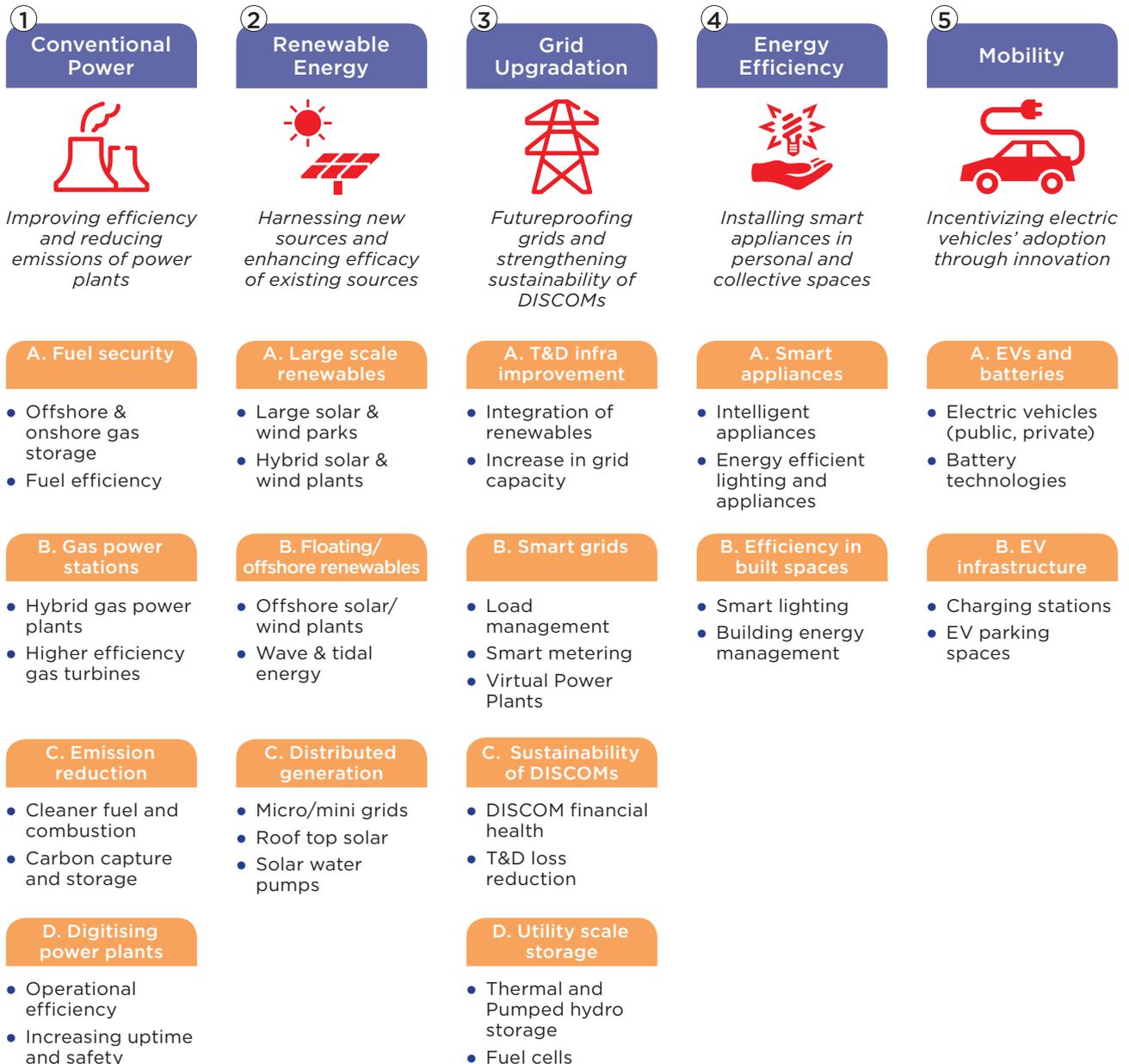
## Energy Efficiency

**Andhra Pradesh aims to save ~12,000 MU of electricity annually, as against the total annual energy requirement of ~50,000 MU, which would save an estimated INR 6,000 crore (~ USD 850 million) annually.** In this context, the summit will delve into technological advancements in making appliances and personal/collective spaces 'smarter' i.e., energy efficient, as well as policy interventions and behavioral nudges required to incentivize their adoption.

## Mobility

Stringent emission norms, rising fuel prices, innovation in battery technologies and lower operating costs are driving adoption of electric vehicles (EVs). **Andhra Pradesh aims to attract an investment of INR 30,000 crores (~ USD 4.5 bn) in EVs and bring 10 lakh (1 million) EVs on road by 2023.** However, lack of supporting infrastructure and viable business models may restrict mass adoption. The Summit will explore exciting technological developments in the EV space.

An overview of the themes and sub-themes is represented in the figure below:



## IV. SUMMIT FORMAT AND AGENDA

The Summit will comprise of events aimed at sharing of knowledge and developing actionable recommendations, including:

- ◆ **Ideas Forum** where leading experts from a wide range of organizations share best practices, trends, and principles on innovations in energy through keynotes and panel discussions
- ◆ **Pitch Competition** where 'energy-preneurs' pitch innovations that can help Andhra Pradesh solve the emerging energy challenges and meet its demand, while making it more livable
- ◆ **Focused workshops** (*invite only*) where targeted, collaborative sessions will be held that bring together experts and government representatives to ideate and design an actionable roadmap **for the energy sector in Andhra Pradesh**
- ◆ **Exhibition** showcasing leading and innovative products, services, technologies, designs and concepts in the energy space
- ◆ **Networking events and dinners**

# Agenda

Day 1 (November 28)	Day 2 (November 29)	
	8:30 – 9:45 am <b>Breakfast with CM and experts</b> (invitation only)	
	9:45 – 10:00 am <b>Announcement of pitch-competition winners</b>	
	10:00 am – 11:15 am <b>Smart spaces and Energy efficiency</b>   Panel	10:00 - 12:00 am <b>Workshop - Part 1   Generation, Transmission and Distribution</b> - Themes 1, 2, 3 <i>(invitation only)</i>
10:30 am – 12:00 pm <b>Inauguration and Opening Address by Hon'ble Chief Minister</b>	11:30 am – 12:45 pm <b>Riding Electric: Road to EVs</b>   Rapid fire panel discussion	
12:00 – 1:00 pm <b>Address by key note speakers</b>	12:45 – 1:45 pm <b>Lunch and networking</b>	
1:00 – 2:00 pm <b>Lunch and networking</b>		
2:00 – 3:15 pm <b>Serving energy demand through renewables</b>   Panel	1:45 – 3:00 pm <b>Innovations in Conventional Energy</b>   Panel	1:45 - 3:45 pm <b>Workshop - Part 2   Consumption</b> - Themes 4, 5 <i>(invitation only)</i>
3:30 – 4:30 pm <b>Pitch competition - Part 1</b>	3:45 – 4:45 pm <b>Valedictory Address</b>	
4:30 - 4:45 pm: <b>Tea</b>		
4:45 – 6:00 pm <b>Grids of the future and DISCOM sustainability</b>   Panel	4:45 pm – 5:15 pm: <b>Tea</b>	
6:00 – 7:00 pm <b>Pitch competition - Part 2</b>		
7:00 pm onwards <b>Dinner hosted by the Hon'ble Chief Minister</b> <i>(invitation only)</i>		

- Pitch competition
- Panel discussion
- Workshop