



Organizing Partner

ISGF

India Smart Grid Forum

Host Utilities



TPC_{ODL}
TP CENTRAL ODISHA DISTRIBUTION LIMITED
(A Tata Power and Odisha Government Joint Venture)

Co-Host Utilities



TPN_{ODL}
TP NORTHERN ODISHA DISTRIBUTION LIMITED
(A Tata Power and Odisha Government Joint Venture)

TPW_{ODL}
TP WESTERN ODISHA DISTRIBUTION LIMITED
(A Tata Power and Odisha Government Joint Venture)

BSES
BSES Rajdhani Power Limited

TPS_{ODL}
TP SOUTHERN ODISHA DISTRIBUTION LIMITED
(A Tata Power and Odisha Government Joint Venture)

BSES
BSES Yamuna Power Limited



**DISTRIBUTION
UTILITY MEET
DUM2022**

SESSION – 7: NEW AND EMERGING TECHNOLOGIES FOR ELECTRIC UTILITIES
18 NOVEMBER 2022 | 16:00 ~ 17:30 (IST)

Aseem Goyal

Head of Business Development – India, Tabreed



INTRODUCTION

- District Cooling Systems (DCS) distributes (supplies and collects back) cooling energy in the form of chilled water from a central district cooling plant to multiple buildings.
- This is done through a distribution network of insulated, underground pipes for space and process cooling.
- Individual users purchase chilled water for their own building from the operator of the DCS and do not need to install their own chillers or cooling towers.

#DUM2022



CONTEXT

- Share of cooling in the overall electricity consumption in India is growing rapidly, owing to:
 - Rising ambient temperatures
 - Rapid population growth
 - Increasingly affluent middle class
- Air conditioning demand already accounts for 40% to 60% of peak power load in some Indian cities, putting a tremendous strain on electricity systems.

#DUM2022

WHY DISTRICT COOLING?

- To lower the installed cooling capacity requirement by aggregating the diversified loads of multiple customers
- To incorporate Thermal Energy Storage (TES) tanks that can take advantage of Time of the Day tariffs, reducing the peak power demand by 25% to 50%
- To have trigeneration plants, reducing the peak power demand by 40% to 60%
- To avail free cooling from rivers, seas and lakes

#DUM2022

WHAT'S IN IT FOR ME?

- Long-term grid balancing services
- Meeting climate goals
- Reduction in capital investment required for additional power generation, transmission, and distribution infrastructure

#DUM2022



RECOMMENDATIONS

- Roles and responsibilities of discoms are utterly vital to promote DCS for large green field commercial developments in India.
 - Include DCS in their masterplans and infra planning
 - Support MoP in developing guidelines for access to DCS projects
 - Ensure uninterrupted electricity (to operate plants) for land parcels sold with mandatory requirement of taking DCS connection

#DUM2022

Organizing Partner



India Smart Grid Forum

Host Utilities



Co-Host Utilities



DISTRIBUTION UTILITY MEET DUM2022

THANK YOU

Organizer



India Smart Grid Forum

