

## State of Odisha

- Odisha is India's ninth largest state by area, which is approximately 155,820 km<sup>2</sup>
- It has two climatic zones broadly classified into composite and warm & humid.
- Odisha has total of 30 districts, distributed in three administrative divisions (North, South and Central, with their headquarters at Sambalpur, Berhampur and Cuttack respectively).

## Situation of the state

- There are three DISCOMs in the state of Odisha.
- There are around 600 commercial building connections in Bhubaneswar and Cuttack city (the two most populated cities of Odisha) with connected load more than or equal to 100 kW.
- In BAU scenario the growth rate in number of commercial establishments is 10% in Bhubaneswar and 12% in Cuttack city.

## Energy Saving Potential

- It is estimated that the adoption & implementation of ECBC only in these

two cities from 2018 may result in cumulative electrical energy saving of around 800 GWh energy by 2030.

## Status of implementation of ECBC

- All the key stakeholders viz. SDA, DISCOM, UDD, ULB, Engineers, Architects, Consultants, Educational Institutes etc. have been engaged in the development of recommendation for notification of ECBC rules
- Odisha ECBC Rules have been prepared and will be submitted to Apex Committee
- Capacity building programs have been designed
- Work for two ECBC compliant demonstration buildings has been initiated.
- Preparation of draft recommendations to integrate ECBC in building regulations
- Preparation of draft recommendations to integrate ECBC in Common Application form (CAF) rules and single window approval system.

## State of Bihar

- Bihar has an area of approximately 94,163 km<sup>2</sup>.
- It is the third largest state in India by population.
- It has two climatic zones broadly classified into composite and warm & humid.
- Bihar has total of 38 districts, distributed in nine administrative divisions (Patna, Tirhut, Saran, Darbhanga, Kosi, Purnia, Bhagalpur, Munger, and Magadh).

## Situation of the state

- There are two DISCOMs (North Bihar & South Bihar) in the state of Bihar.
- There are around 450 commercial building connections with connected load more than or equal to 100 kW.
- Patna administrative division represents maximum share of commercial connections with connected load more than 100 kW.
- In the BAU scenario, every year, around 41% new commercial building connections are expected to be added with South Bihar Power DISCOM.

## Energy Saving Potential

- It is anticipated that the adoption & implementation of ECBC in the state from 2018 may result in cumulative electrical energy saving of around 650 GWh by 2030.

## Status of implementation of ECBC

- All the key stakeholders viz. SDA, DISCOM, UDD, ULB, Consultants etc. have been engaged in the development of ECBC rules.
- Bihar ECBC Rules have been amended and approved as per the requirement of the state.
- Notification is expected in the month of November 2017
- Capacity building programs have been designed.
- Work for two ECBC compliant demonstration buildings has been initiated.



Energy Efficient Building Materials



Energy Efficient HVAC Systems



Energy Efficient Lighting



Renewable Energy



## This project is part of the EU-India Clean Energy and Climate Partnership

“The European Union is made up of 28 Member States who have decided to gradually link together their know-how, resources and destinies. Together, during a period of enlargement of 50 years, they have built a zone of stability, democracy and sustainable development whilst maintaining cultural diversity, tolerance and individual freedoms.

The European Union is committed to sharing its achievements and its values with countries and peoples beyond its borders”.



**Creation of Common Implementation Forum to support India in Adoption, Compliance and Enforcement of Energy Conservation Building Code (2017)**

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## National Level Workshop to Create Common Implementation Forum for Energy Conservation Building Code (ECBC) 2017



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This project is funded by the European Union

## The Concept - The ACE: E2

ACE: E2 stands for Adoption, Compliance, and Enforcement of Energy Efficiency Legislation in India. It is part of the project "Clean Energy Cooperation with India" (CECI), funded by the European Union (EU), to support Bureau of Energy Efficiency (BEE), Ministry of Power, India. The project aims at enhancing India's capacity to deploy low carbon energy production and improve energy efficiency, thereby contributing to the mitigation of global climate change.

Through this project, BEE and EU will work together to support India's efforts to secure energy supply and, thus, contribute to global energy security,

within a well-established framework for strategic energy cooperation between the India and EU.

The ACE: E2 project main objective is to assist in the implementation of energy efficiency legislation in four States viz. Bihar, Madhya Pradesh, Maharashtra, and Odisha. The project will leverage EU experiences and best practices, supporting BEE/States in setting up procedures for energy efficiency and to implement the nationally developed Energy Conservation Building Code (ECBC) scheme in commercial buildings with installed capacity greater or equal to 100 kW or contract demand greater or equal to 120 kVA.

For more information visit [www.ace-e2.eu](http://www.ace-e2.eu)



## Project Information

The project started in January 2016 and it will end in July 2019 (42 Months duration). It is implemented by the consultancy company EXERGIA S.A., Greece, in collaboration with Price water house Coopers (PwC), India and the CEPT University, in Gujarat, India.

### The Beneficiary - Bureau of Energy Efficiency:

The mission of the Bureau of Energy Efficiency, BEE, is to assist in developing policies and strategies with a thrust on self-regulation and market principles, within the overall framework of the Energy Conservation Act, 2001 with the primary objective of reducing energy intensity of the Indian economy (About BEE: [www.beeindia.gov.in](http://www.beeindia.gov.in)).

During the course of the project, technical assistance comprising of international as well as national experts is provided to BEE as well as to the respective states. ECBC Cells comprising of qualified engineers and architects have been set up in each state to work closely with all the key stakeholders of the state to facilitate notification & implementation of ECBC.



## Expected Results & Outcomes

- Technical support to BEE and states in implementation of ECBC 2017
- Demonstrate ECBC 2017 in eight commercial buildings (2 in each state)
- Build capacity and develop coordination committee in all the 4 states
- Share European best practices and improve access of energy efficient technologies in Indian market
- Organise National level coordination activities on the promotion of during the course of the ACE:E2 project.

## State of Maharashtra

- Maharashtra is India's third largest state by area, which is approximately 307,713 km<sup>2</sup>.
- It has four climatic zones broadly classified into cold, composite, warm & humid, and hot & dry.
- Maharashtra has total of 36 districts, distributed in six administrative divisions (Amravati, Aurangabad, Nagpur, Nashik, Pune and Kokan).

### Situation of the state

- There are total four DISCOMs in the state of Maharashtra
- There are around 11,000 commercial building connections with connected load more than or equal to 100 kW.
- Kokan & Pune administrative division represents maximum share of commercial connections with connected load more than 100 kW.
- In the BAU scenario, every year, around 1000 new commercial building connections are expected to be added across the state.

## Energy Saving Potential

- It is anticipated that the adoption & implementation of ECBC in the state from 2018 may result in cumulative electrical energy saving of around 15,000 GWh by 2030.

### Status of implementation of ECBC

- All the key stakeholders viz. SDA, DISCOM, UDD, ULB, Engineers, Architects, Consultants, Educational Institutes etc. have been engaged in the development of ECBC rules.
- Maharashtra ECBC Rules have been amended and approved as per the requirement of the state.
- Notification is expected in the month of November 2017
- Capacity building programs have been designed.
- Work for two ECBC compliant demonstration buildings has been initiated

## State of Madhya Pradesh

- Madhya Pradesh is India's second largest state by area, which is approximately 308,252 km<sup>2</sup>.
- It has two climatic zones broadly classified into composite and hot & dry.
- Madhya Pradesh has total of 51 districts, distributed in ten administrative divisions (Bhopal, Gwalior, Narmadapuram, Chambal, Jabalpur, Indore, Rewa, Sagar, Shahdol, and Ujjain).

### Situation of the state

- There are three DISCOMs in the state of Madhya Pradesh
- There are around 1000 commercial building connections with connected load more than or equal to 100 kW.
- Indore and Bhopal administrative division represents maximum share of commercial connections with connected load more than 100 kW.
- In the BAU scenario, every year, around 100 new commercial building connections are expected to be added across the state.

## Energy Saving Potential

- It is anticipated that the adoption & implementation of ECBC in the state from 2018 may result in cumulative electrical energy saving of around 1000 GWh by 2030.

### Status of implementation of ECBC

- All the key stakeholders viz. SDA, DISCOM, UDD, ULB, Engineers, Architects, Consultants, Educational Institutes etc. have been engaged in the development of ECBC rules.
- MP ECBC Rules have been amended and approved as per the requirement of the state.
- Notification is expected in the month of November 2017
- Capacity building programs have been designed.
- Work for two ECBC compliant demonstration buildings has been initiated.

