



G20 Energy End-Use Data and Energy Efficiency Metrics Workshop

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Time: 16:30 IST*



Energy Savings in India in 2018-19 - Highlights

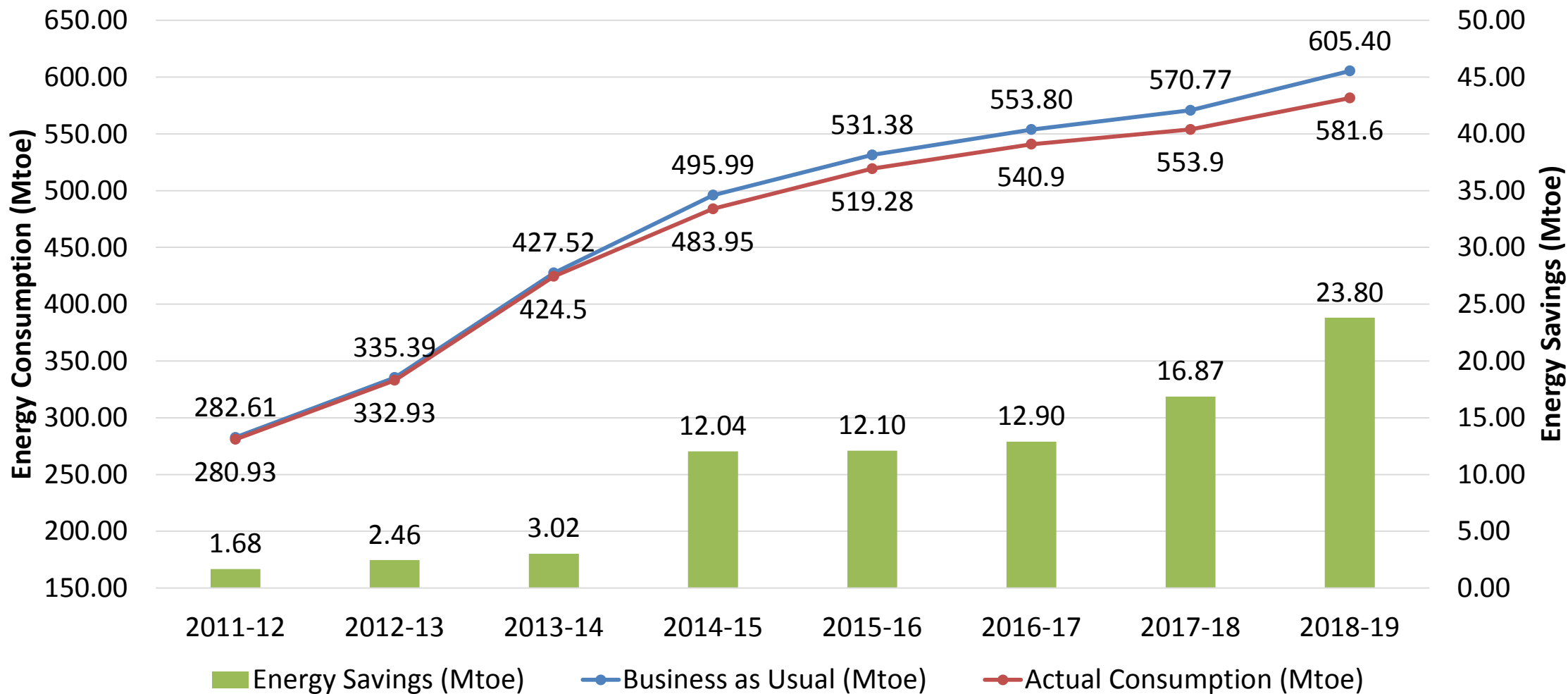


Savings	Electrical	Thermal	Total
Energy	136.37 BU	12 Million Toe	23.73 Million Toe
Monetary (USD Billion)	9.57	3.15	12.75
Emissions	111.83 Mt CO ₂	39.91 Mt CO ₂	151.74 Mt CO₂

- Total energy savings is **2.7%** of total primary energy supply of the country



Energy savings vis-à-vis Energy Consumption

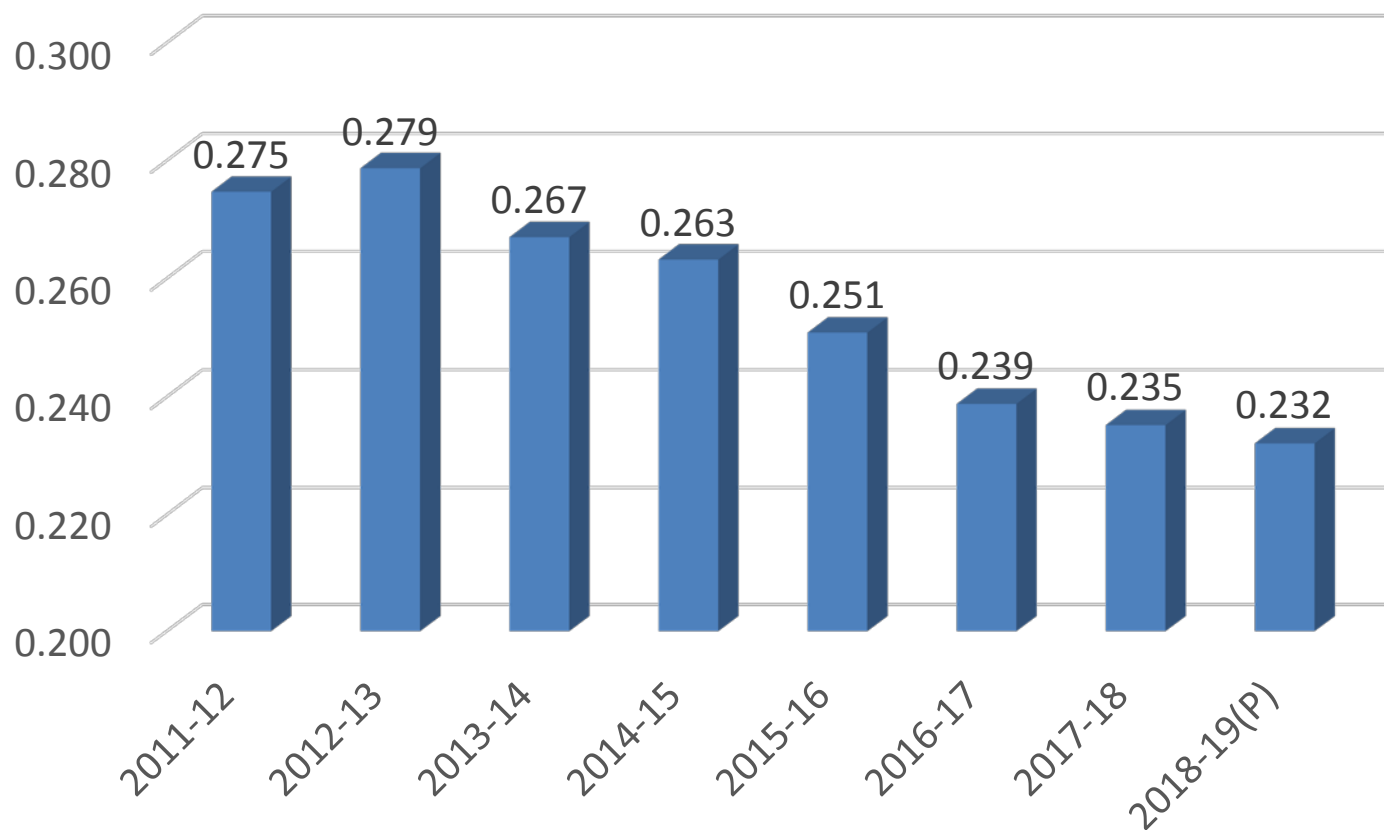




Declining Energy Intensity - INDIA



Energy Intensity of India at 2011-12 prices in Mega Joule / rupee



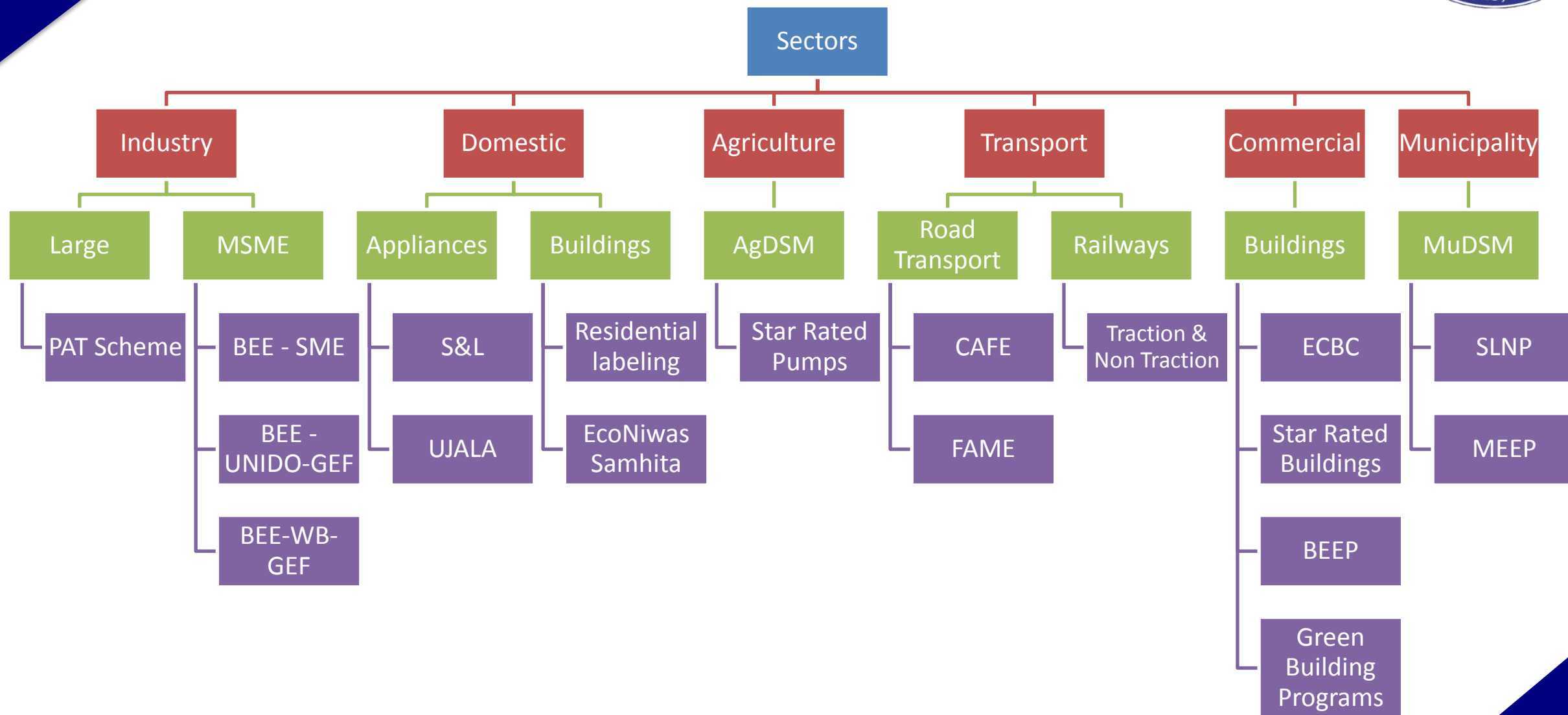
Source: Energy Statistics 2020

This decline may be due to:

- Faster growth of GDP than energy demand
- The services sector having a growing share of the economy
- **Effective implementation of energy efficiency programmes**



List of schemes/programmes considered





Data Collection Approach



Stakeholder consultation

BEE

EESL

WB/SIDBI & UNIDO

ICAT

DHI

Ministry of Railways

CII

GBCI

TERI-GRIHA

Scheme specific Data Collection

PAT, S&L, ECBC, Star Rated Buildings, CAFÉ Norms, BEE SME Programme

UJALA, AgDSM, MuDSM (SLNP), BEEP, National EV mission

Energy Efficiency in MSME Clusters

CAFÉ Norms for Vehicles

FAME Scheme for EV adoption

EE in Traction and Non-traction

Green Building IGBC

Green Building LEED

Green Building GRIHA

Data Analysed

Electricity saved in terms of Billion Unit
(1 BU = 1 TWh=10⁹ kWh)

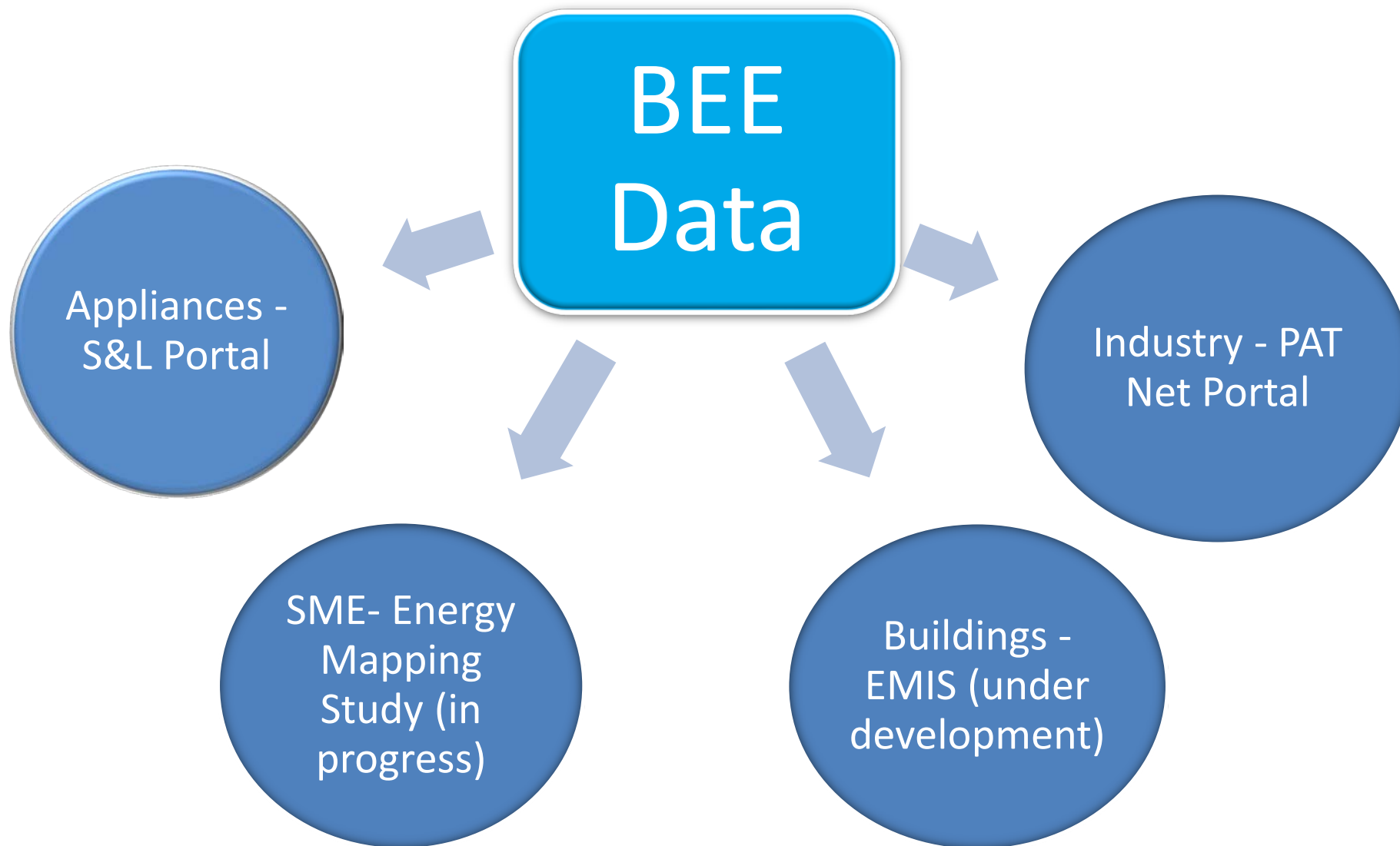
Energy saved in terms of MTOE
(1 TOE = 11,630 kWh)

Monetary savings by adapting Energy savings measures
(Cost/toe = INR 18,402 & Cost/kWh = INR 5.00)

Reduction in CO₂ emissions
(1 kWh saving = 0.82 kg of CO₂ emission reduction)



Data Collection Approach





Impact of Covid-19 on Data Collection Approach



Impact in Industry Sector

- Due to COVID-19 pandemic, data submission deadline (Form-1) for 1073 Designated Consumers (DCs) under Perform, Achieve and Trade (PAT) Scheme was extended by **Two Months**.
- The Monitoring and Verification of DCs under PAT Cycle-3 was also extended by **Two Months**.

Impact in Appliances Sector

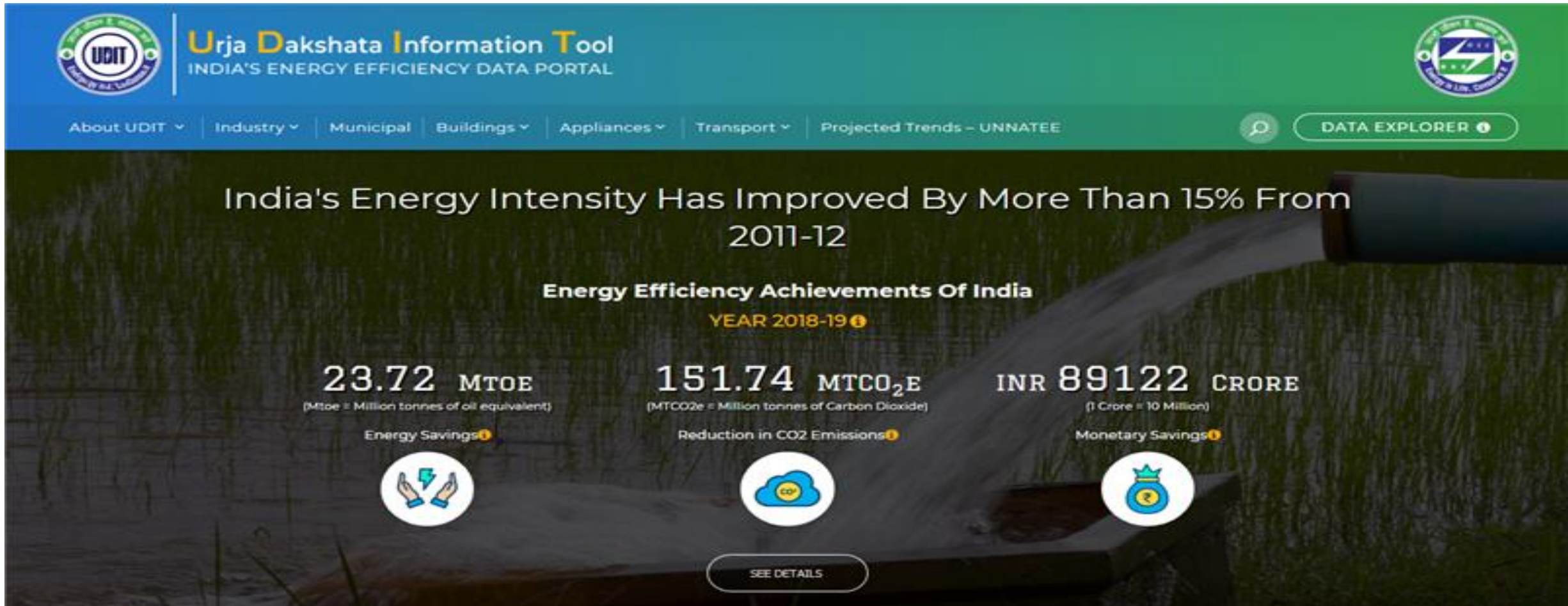
- Due to COVID-19 pandemic, the quarterly data updation by the manufacturers of 26 appliances covered under Standards & Labeling Scheme on the Star Label Portal of BEE was extended on case to case basis.



Data Portal – Way Forward



Urja Dakshata Information Tool: Initiative by BEE and WRI to facilitate a database to monitor EE





Sector-wise Savings Potential



EXPECTED OUTCOME – 2017-31

Sector	Energy Consumption in 2031 (BAU)	Savings by 2031	Emission Reduction by 2031	Investment Potential
	Mtoe	Mtoe	(MtCO ₂)	(USD Billion)
Agriculture	64.4	5.7	14	7.35
Commercial	29.5	4.9	34	11.59
Domestic	98.6	12.1	101	17.18
Municipal	8.0	0.9	7	1.19
Industrial	443.4	47.5	185	73.59
Transport	232.9	15.8	97	32.29
Total	876.8	86.9	438	143.19

Energy Efficiency is likely to contribute 45% - 50% towards India's NDC Commitments



Economic Recovery Options

- Promoting Indigenous component manufacturing.
- Cover new appliances to promote energy efficiency .
- Increasing acceptability of BEE star labelled products abroad.

- Promoting Cold-chain sector
- Create skilled technical manpower and job opportunities
- Accelerating adoption of clean technologies

Economic Recovery Options

- Technology replacement
Accelerated Deployment of Energy Efficient technologies to stimulate MSME sectors
- Enhancing MSME Technology Services

- EE measures through deep-retrofitting in Hospital & govt. buildings
- Supporting construction through manufacturing of EE Glass

