

Analysis of Electricity Consumption in India

Group- WATTSUP

November 2021

Table of Contents

- 1 Group Members- WATTSUP
- 2 Problem Statement
- 3 Goals
- 4 Status - as on date
- 5 Doubts, Clarification, Queries

Outline

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Group Members- WATTSUP

Ser	Name	Reg number	Background
1	Karan Chawla	EPABABL0523016	Director, MIS & Analytics, American Express
2	Krishna Kumar	EPABABL0523017	Manager, Niva Bupa Health Insurance
3	Roopesh Kesav	EPABABL0523032	Indian Navy

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Problem Statement

Remark

Understanding energy consumption patterns, sources, and trends for sustainable development, energy planning, and environmental management.

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- **Data Collection**. Historical data on electrical energy consumption, production, and related factors for different states and sectors.
 - indiastat.com - under power category.

- **Data Collection**. Historical data on electrical energy consumption, production, and related factors for different states and sectors.
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- **Data Preprocessing**. Handle missing values, outliers, and inconsistencies.
 - Inconsistencies - between years.
 - Creation of states/regions over time.
 - Inconsistency in data available - column /rows splits

- **Descriptive Analysis**. Visualizing trends, variations, and patterns in energy consumption across regions and sectors.

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- **Source Analysis**. Analyse shift in energy source and its implications.
- **Sectoral Analysis**. Energy consumption by sectors.

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Present Status- Data Collection and Preprocessing

Ser	Data Description	Duration	Status
1	Electricity Consumers	2008-2021	Data Downloaded. Preprocessing in progress.
2	Electricity Tariff and Duty -	2011,2015,2021	
3	Electrification	2002-2022	
4	Power Allocation	2010-2019	
5	Power Connected Load	2010-2021	
6	Power Consumption and Sale	2011-2022	
7	Power Generation	2014-2023	
8	Transmission and Distribution	2013-2022	

Consumers Data - snapshot from indiastat

Consumers (Utilities) in India

Power Data Table being Added or Updated during current month

SUB CATEGORY

Electricity Consumers

Electricity Tariff & Duty
Electrification
Power Allocation
Power Connected Load
Power Consumption and Sale
Power Demand and Supply
Power Generation
Power Projects
Power Schemes/Programmes
Renewable Energy
State Electricity Boards (SEBs)
Transmission and Distribution
Others

YEAR

- 2008-2021

2021
2020
2017
2016
2015
2014
2011
2010
2009
2008

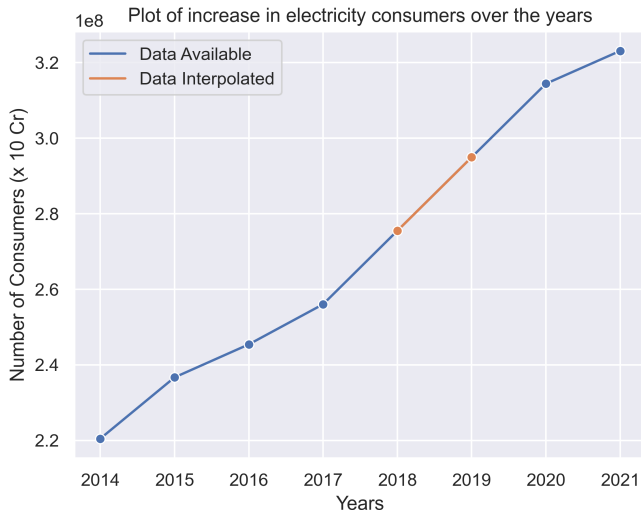
+ 1997-2007

All Years

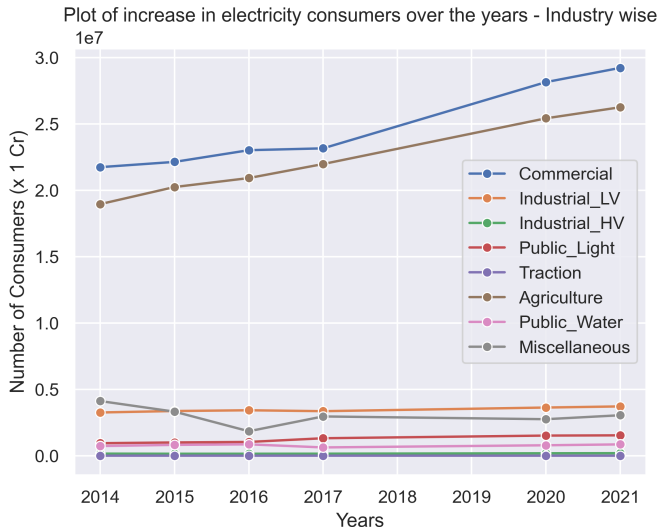
RESULT

- ⇒ State/Category-wise Number of Electricity Consumers (Utilities) in India (As on 31.03.2021)
①
- ⇒ State/Category-wise Number of Electricity Consumers (Utilities) in India (As on 31.03.2020)
①
- ⇒ Region/State-wise Classification of Power Consumers (Utilities) in India (As on 31.03.2017)
①
- ⇒ Region/State-wise Classification of Power Consumers (Utilities) in India (As on 31.03.2016)
①
- ⇒ Region/State-wise Classification of Power Consumers (Utilities) in India (As on 31.03.2015)
①
- ⇒ Region/State-wise Classification of Power Consumers (Utilities) in India (As on 31.03.2014)
①

Consumers Data - Preprocess and Visualisation



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Doubts, Clarification, Queries

- R or Python
- Scope of the Project