

## Plugging into the future : An exploration of electricity consumption patterns

### 1.Introduction

#### 1.1.Overview

Electricity consumption represents the amount of electrical energy that has been consumed over a specific time, in units of Wh(or kWh), electricity demand represents that rate at which electrical energy is consumed for a needed output rating, in units of W (or kW).

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## 1.2. Advantage of electric consumption patterns

Which breaks with the traditional system of generating electricity in plants that is then distributed to our homes, gives consumer the possibility of generating their own energy.

The main advantage are increased autonomy and reduced costs.

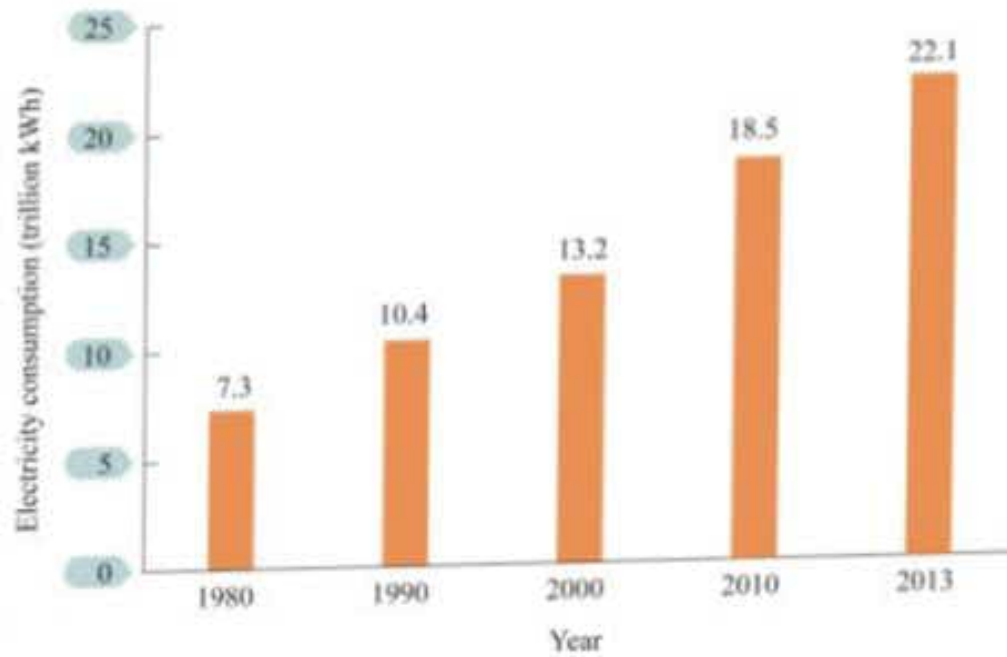
## 1.2. Disadvantages of electric consumption patterns

Power plants that burn biomass release sulfur dioxide and nitrogen oxides, two undesirable pollutants, into the air.

Power plants that burn fossil fuel pump carbon-dioxide into the atmosphere.

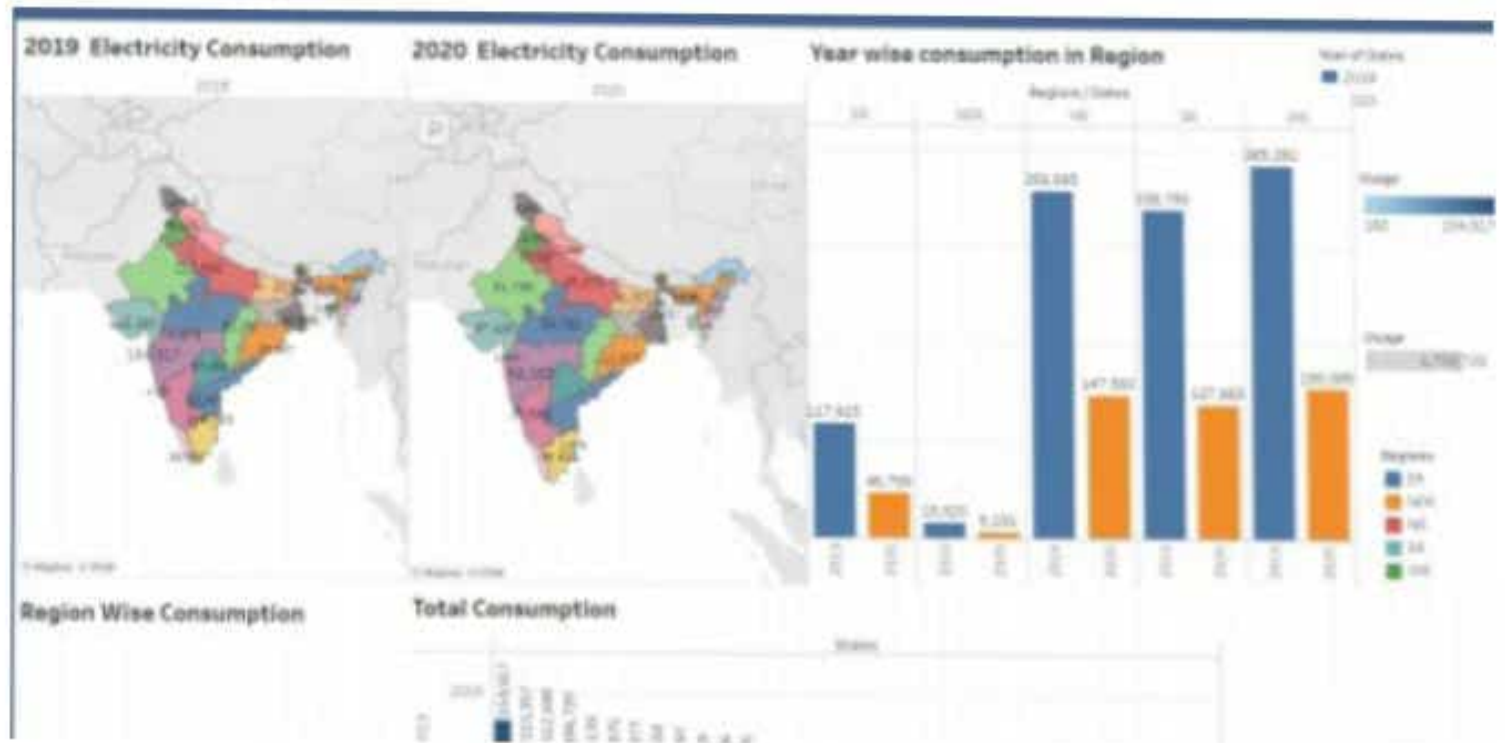
# Project Report

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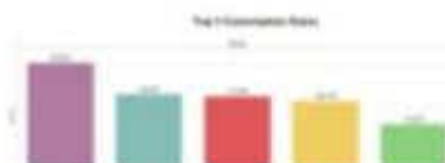
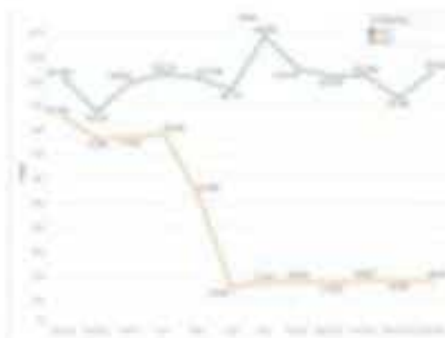


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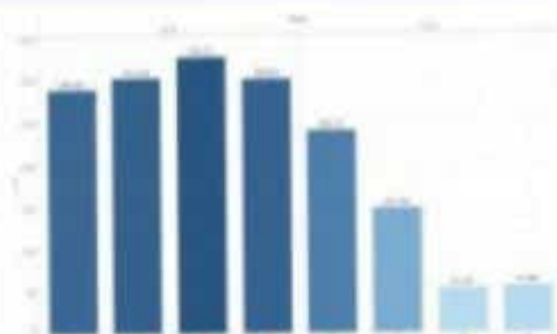


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## Visualizations



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## Electricity Consumption in Quarters

- ✓ Electricity Consumption in 2019 for Quarter 3 was Highest.
- ✓ Electricity Consumption in 2019 for Quarter 1 was Lowest.
- ✓ Electricity Consumption in 2020 for Quarter 3 was Lowest.
- ✓ Electricity Consumption in 2020 for Quarter 1 was Highest.

## Electricity Consumption in Regions

- ✓ Total Electricity consumption in Western Region is Highest.
- ✓ Total Electricity consumption in North Eastern Region is Lowest.
- ✓ Electricity Consumption in 2020 for Quarter 3 was Lowest.



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## 2. Conclusion

Current through a given area of a conductor is the net charge that passes per unit time through the conductor.

To keep up a gradual current, we must have a circuit within which an electrical phenomenon occurs from lower to higher mechanical energy



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### 3.Future scope

As the Indian government plans to increase electrification of rail-route kilometers from 40 percent presently to 77 percent by 2022, the level of electricity consumption achieved by 2030 could be 35\_43 TWh, growing at 5.0\_6.3 percent CAGR from 17TWh in 2015