Plugging Into The Future An Exploration Of Electricity Consumption Patterns

1 Introduction

1.1 Overview

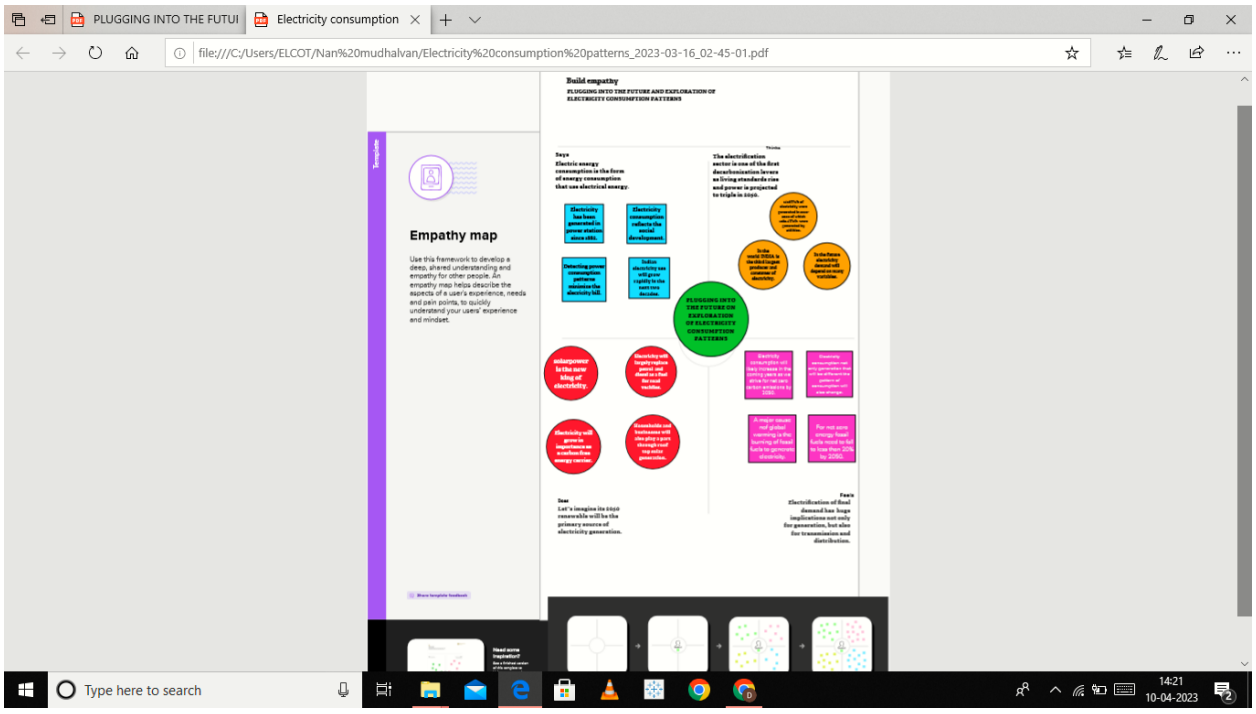
Electricity consumption represents the amount of electrical energy that has been consumed electricity demand represents that rate at which electrical energy is consumed for a needed outputrating in unit of or kW. Electric energy consumption is the form of energy consumption that uses electrical energy. Electric energy consumption is the actual energy demand made on existing electricity supply for transportation, residential, industrial, commercial and other miscellaneous purposes. The national electric grid in India has an installed capacity of 370.106 GW as of 31 March 2020. During the fiscal year 2019-20, the total electricity generation in the country was 1,598 TWh, of which 1,383.5 TWhgenerated by utilities. The per capita electricity consumption is low compared to most other countries despite India having a low electricity tariff.

1.2 Purpose

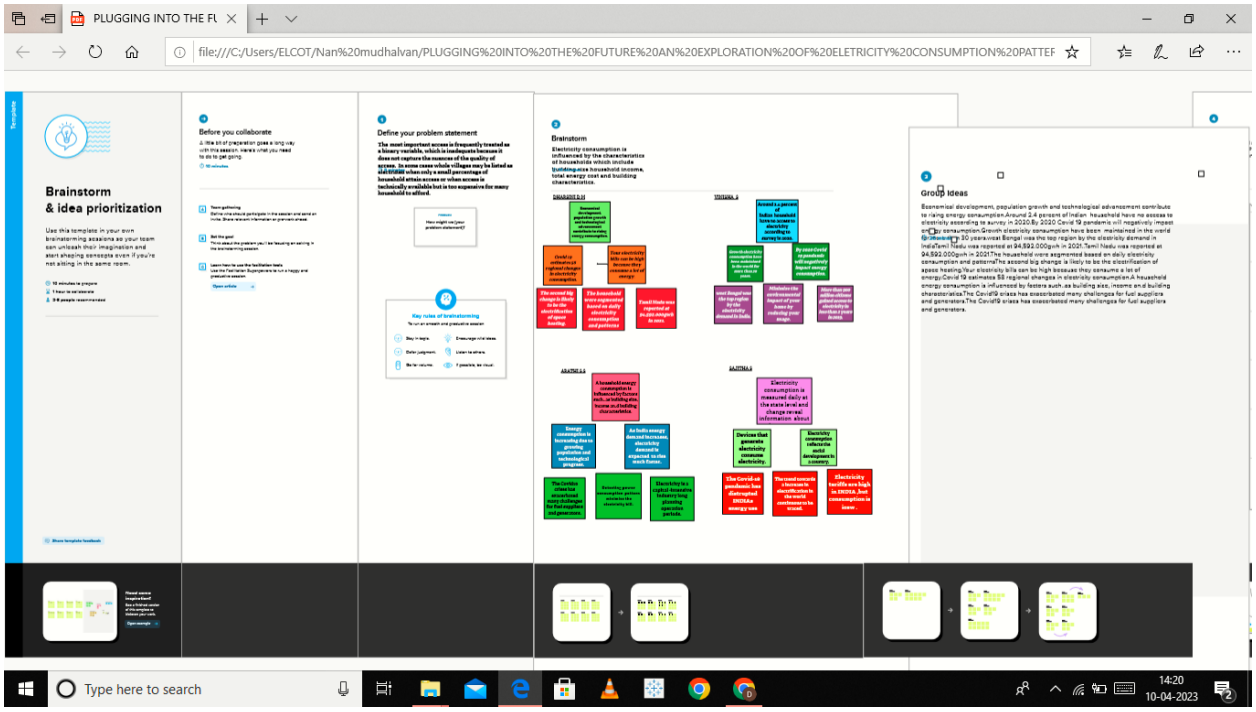
In the world India is the third largest producer and consumer of electricity. India has seen extraordinary successes in its recent energy development, but many challenges remain, and the Covid-19 pandemic has been a major disruption. The levers and decisions that bring them about, and the interactions that arise across a complex energy system. Prior to the global pandemic, India's energy demand was projected to increase by almost 50% between 2019 and 2030, but growth over this period

2 Problem Definition and Design Thinking

2.1 Empathy Map

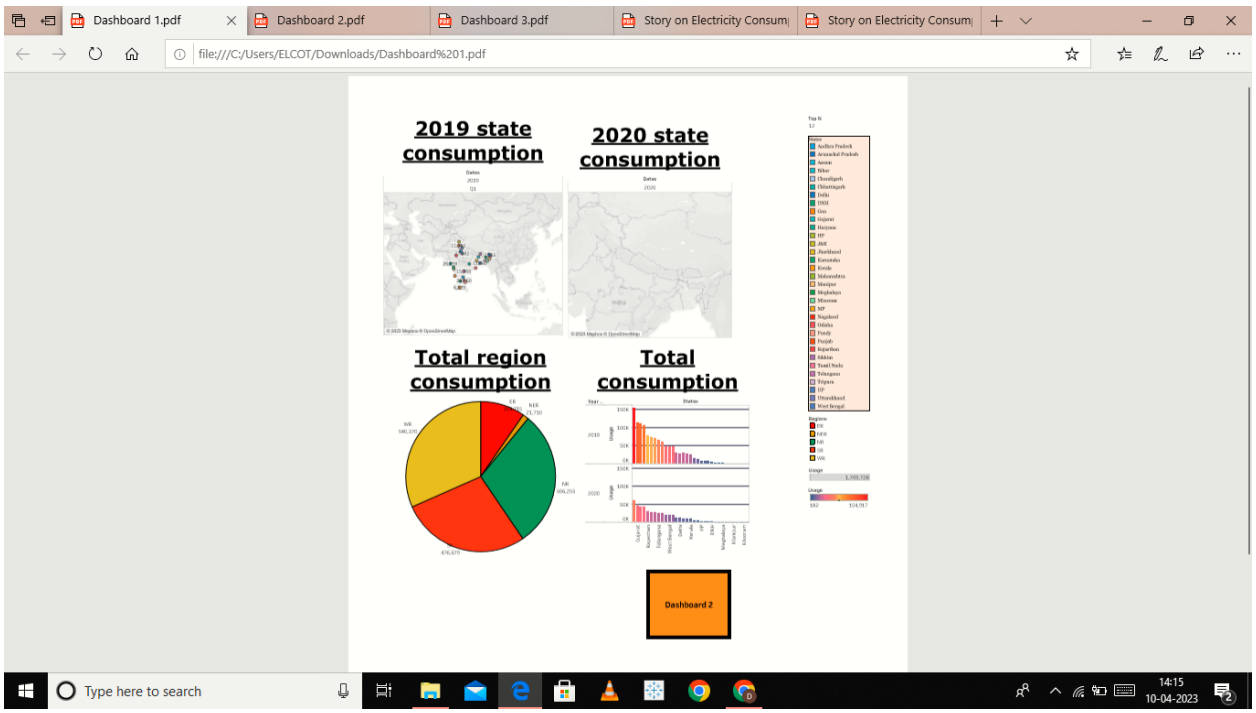


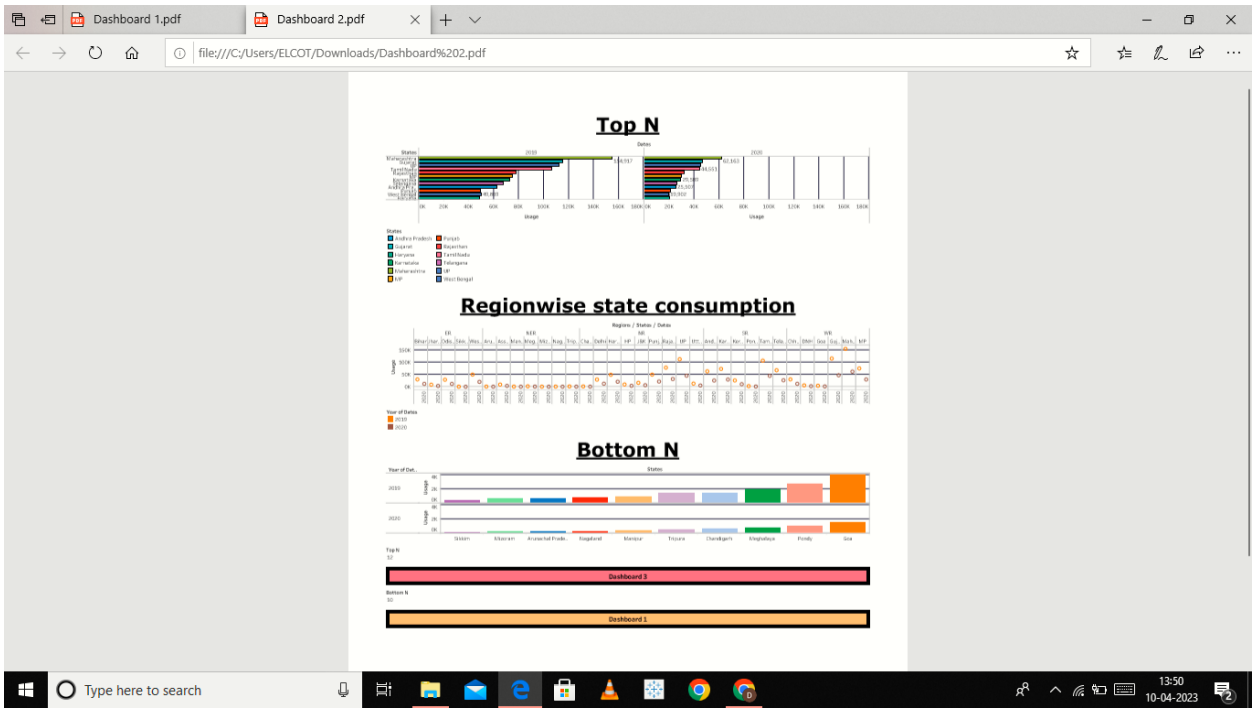
2.2 Ideation and Brainstorming Map

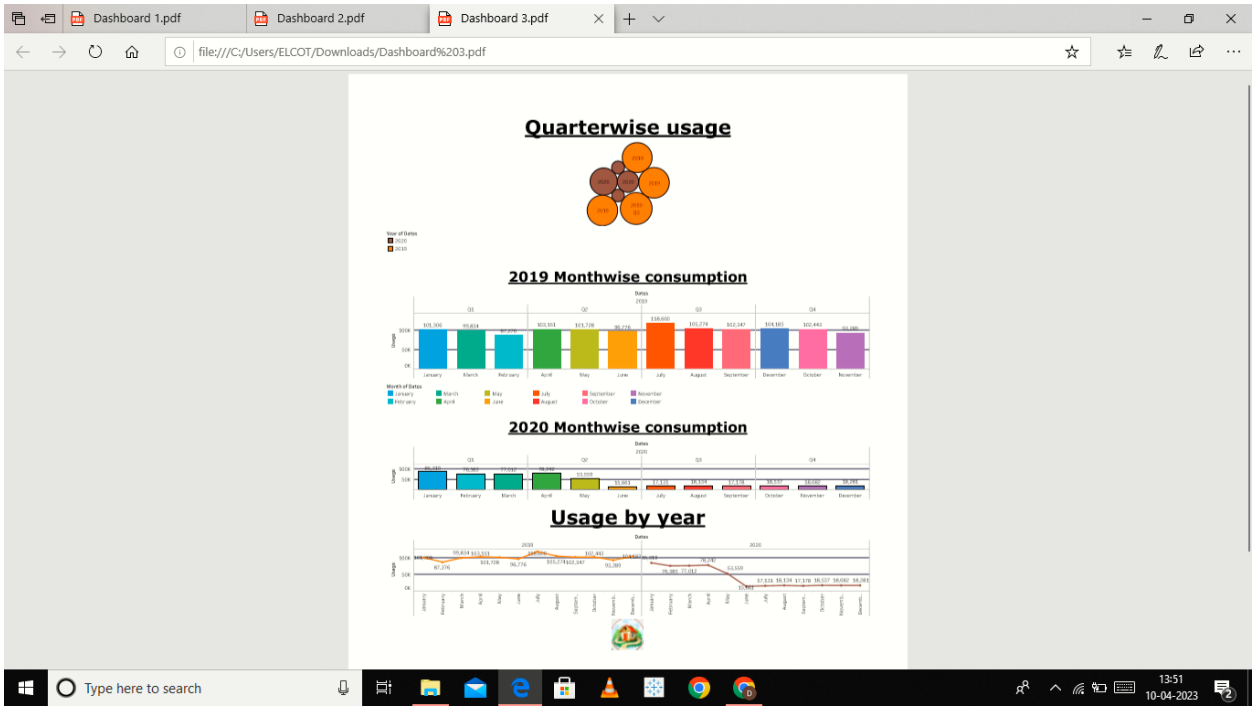


3 RESULTS

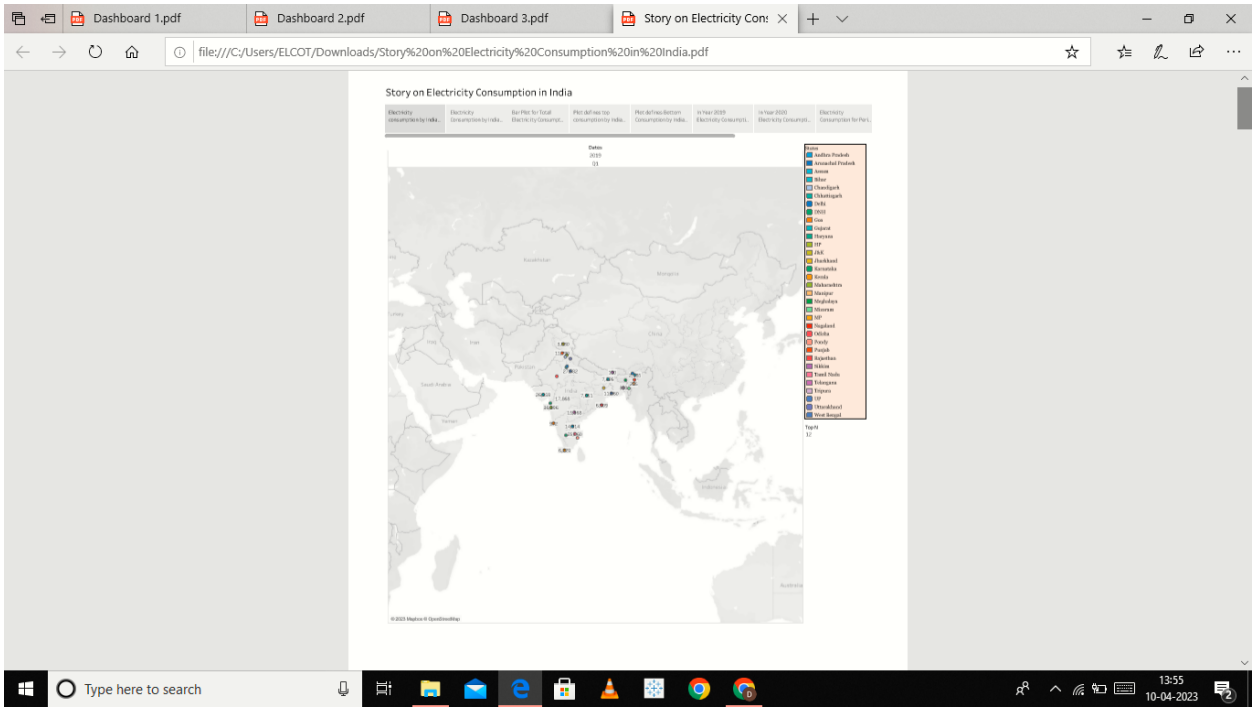
DASHBOARD;


Dashboard 1.pdf
Dashboard 2.pdf
Dashboard 3.pdf
Story on Electricity Consum
Story on Electricity Consum
file:///C:/Users/ELCOT/Downloads/Dashboard%201.pdf
2019 state consumption
2020 state consumption
Total region consumption
Total consumption
Dashboard 2
Type here to search
14:15
10-04-2023


Dashboard 1.pdf
Dashboard 2.pdf
file:///C:/Users/ELCOT/Downloads/Dashboard%202.pdf
Top N
Regionwise state consumption
Bottom N
Dashboard 3
Dashboard 1
Type here to search
13:50
10-04-2023


Dashboard 1.pdf
Dashboard 2.pdf
Dashboard 3.pdf
file:///C:/Users/ELCOT/Downloads/Dashboard%203.pdf
Quarterwise usage
2019 Monthwise consumption
2020 Monthwise consumption
Usage by year
Type here to search
13:51
10-04-2023

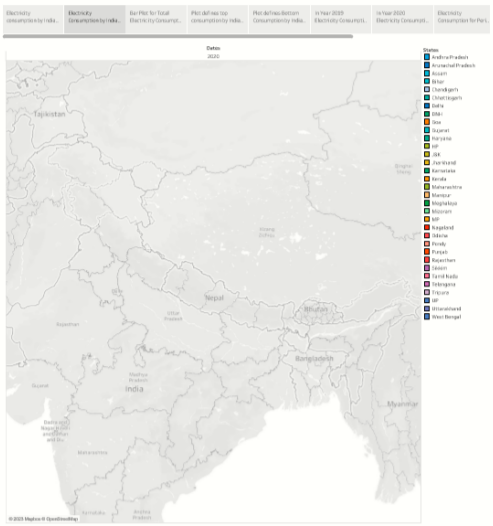
STORY


Dashboard 1.pdf
Dashboard 2.pdf
Dashboard 3.pdf
Story on Electricity Cons
file:///C:/Users/ELCOT/Downloads/Story%20on%20Electricity%20Consumption%20in%20India.pdf
Story on Electricity Consumption in India
Type here to search
13:55
10-04-2023

Dashboard 1.pdf | Dashboard 2.pdf | Dashboard 3.pdf | Story on Electricity Cons | Story on Electricity Consum

file:///C:/Users/ELCOT/Downloads/Story%20on%20Electricity%20Consumption%20in%20India.pdf

Story on Electricity Consumption in India



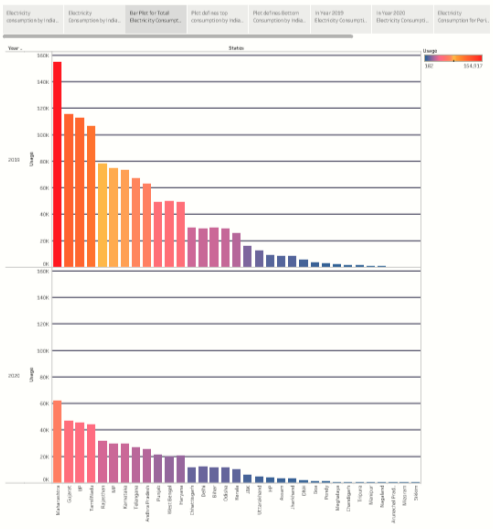
Type here to search

13:57
10-04-2023

Dashboard 1.pdf | Dashboard 2.pdf | Dashboard 3.pdf | Story on Electricity Cons | Story on Electricity Consum

file:///C:/Users/ELCOT/Downloads/Story%20on%20Electricity%20Consumption%20in%20India.pdf

Story on Electricity Consumption in India



Type here to search

13:57
10-04-2023

Dashboard 1.pdf | Dashboard 2.pdf | Dashboard 3.pdf | Story on Electricity Cons | Story on Electricity Consum

file:///C:/Users/ELCOT/Downloads/Story%20on%20Electricity%20Consumption%20in%20India.pdf

Story on Electricity Consumption in India

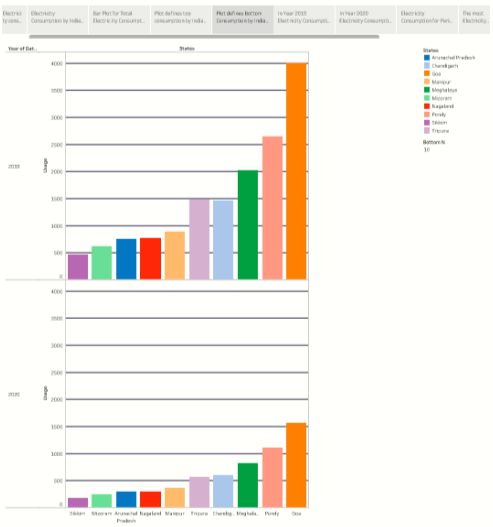
Type here to search

13:58
10-04-2023

Dashboard 1.pdf | Dashboard 2.pdf | Dashboard 3.pdf | Story on Electricity Cons | Story on Electricity Consum

file:///C:/Users/ELCOT/Downloads/Story%20on%20Electricity%20Consumption%20in%20India.pdf

Story on Electricity Consumption in India



Type here to search

13:59
10-04-2023

Dashboard 1.pdf | Dashboard 2.pdf | Dashboard 3.pdf | Story on Electricity Cons | Story on Electricity Consum

file:///C:/Users/ELCOT/Downloads/Story%20on%20Electricity%20Consumption%20in%20India.pdf

Story on Electricity Consumption in India

Type here to search

14:00
10-04-2023

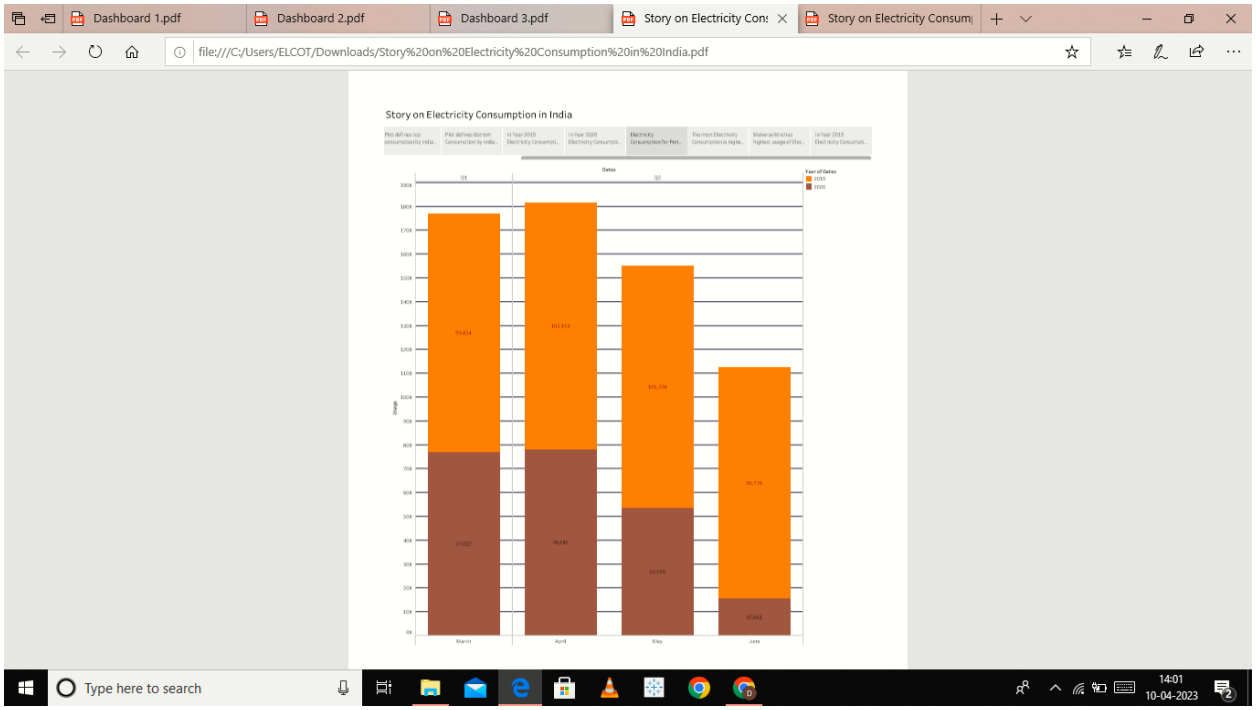
Dashboard 1.pdf | Dashboard 2.pdf | Dashboard 3.pdf | Story on Electricity Cons | Story on Electricity Consum

file:///C:/Users/ELCOT/Downloads/Story%20on%20Electricity%20Consumption%20in%20India.pdf

Story on Electricity Consumption in India

Type here to search

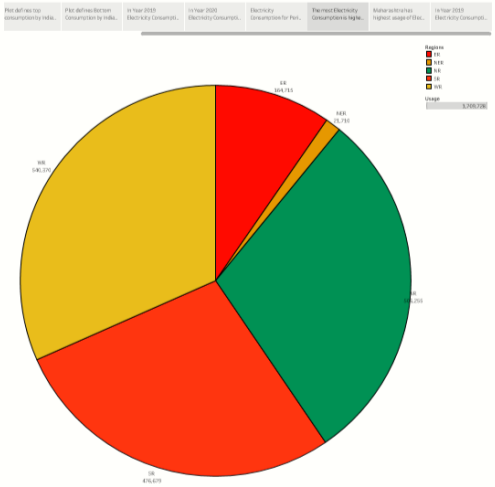
14:01
10-04-2023


Dashboard 1.pdf
Dashboard 2.pdf
Dashboard 3.pdf
Story on Electricity Cons
Story on Electricity Consum
file:///C:/Users/ELCOT/Downloads/Story%20on%20Electricity%20Consumption%20in%20India.pdf
Story on Electricity Consumption in India
Dates
Year of Dates
Sum of
Q1
Q2
March
April
May
June
Type here to search
14:01
10-04-2023

Dashboard 1.pdf | Dashboard 2.pdf | Dashboard 3.pdf | Story on Electricity Cons | Story on Electricity Consum

file:///C:/Users/ELCOT/Downloads/Story%20on%20Electricity%20Consumption%20in%20India.pdf

Story on Electricity Consumption in India



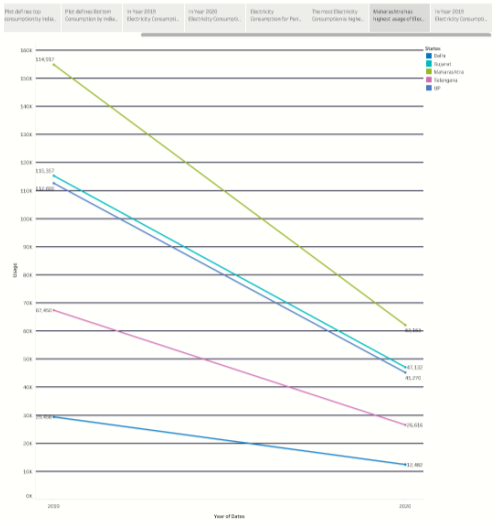
Type here to search

14:04
10-04-2023

Dashboard 1.pdf | Dashboard 2.pdf | Dashboard 3.pdf | Story on Electricity Cons | Story on Electricity Consum

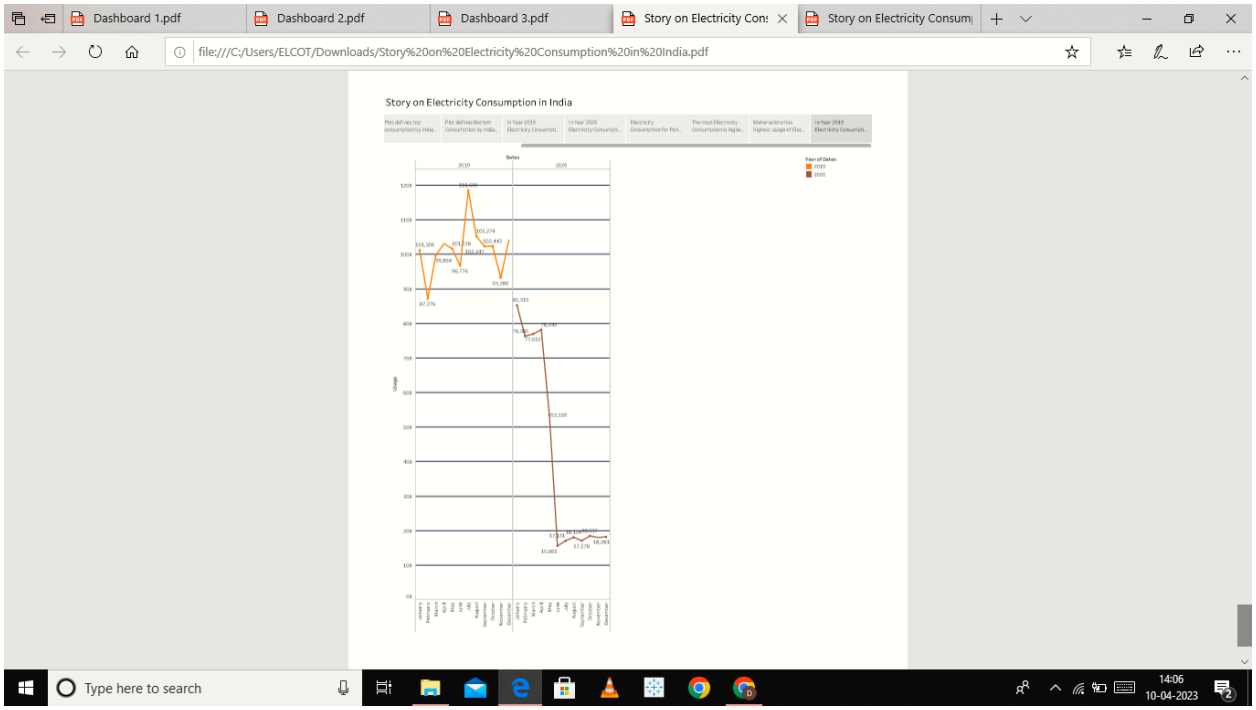
file:///C:/Users/ELCOT/Downloads/Story%20on%20Electricity%20Consumption%20in%20India.pdf

Story on Electricity Consumption in India



Type here to search

14:05
10-04-2023



4 Advantages and Disadvantage

Advantages

- ★ **Electricity consumption is a clean, safe, cheap and convenient source of energy.**
- ★ **Makes barely any pollution compare to other ways of creating or generating electricity.**
- ★ **Hydroelectricity produces no gas emission or waste.**
- ★ **Reduces greenhouse emission.**
- ★ **Hydroelectric stations are inexpensive to operate.**
- ★ **We all know that it can be set up in many sizes.**
- ★ **Relatively low maintenance cost.**
- ★ **A station can operate and run for long periods of time.**
- ★ **Electricity consumption is renewable.**
- ★ **It doesn't require as many employees.**

Disadvantages

- ★ **Electricity there are a limited number of feasible sites for a large number of dams.**
- ★ **Hydroelectric natural seasonal changes in river and ecosystem can be destroyed.**
- ★ **An electric vehicle is not completely emission free.**
- ★ **Damming can cause loss of land suitable for agriculture as well as recreation.**
- ★ **More expensive than gasoline.**
- ★ **Sometimes messes up wildlife.**
- ★ **Change in river or stream quality.**
- ★ **More power plants and more pollution.**
- ★ **Dependent on precipitation.**
- ★ **Drought can affect power production.**

5 Applications

People use electricity for lighting, heating, cooling, and refrigeration and for operating appliances, computers, electronics, machinery, and public transportation systems.

- ❖ **Consumer electronics – such as television, audio, IT, data processing, etc.**
- ❖ **Small appliances – such as electric kettles, toasters, hair dryers, beverage makers, etc.**
- ❖ **Larger appliances – such as refrigeration, cooking, laundry equipment, etc.**
- ❖ **Transport systems – such as trains, buses, trams, and cars all use electricity.**
- ❖ **Entertainment – such as the MP3 player, the portable battery-powered radio and memory stick are all accepted as care parts of our day to day lives.**
- ❖ **Commercial usage – such as workspaces, hospitals, educational centers, restaurants, shopping malls, government properties, police stations, etc.**
- ❖ **Wireless lights such as solar – powered lamps convert light to electricity.**
- ❖ **Home heating and lightning devices, television, radio, computer, telephones all depend on electricity.**
- ❖ **We find the application of electrical energy as the medium for the transmission of signals.**
- ❖ **We use electricity for accessing data from modes like fiber LAN at our workplaces.**

6 Conclusion

Electricity consumption should be saved because it's not all free. Energy conservation is the effort made by us to reduce the consumption of energy by using less of an energy service or using renewable energy. Electricity is the backbone of modern society. Our life will go back to the primitive age without electricity. There is a need for rational use of electricity, as it is largely produced from non-renewable sources like coal and water. Electricity energy consumption is the form of energy consumption that uses electrical energy. Electric energy consumption is the actual energy demand made on existing electricity supply for transportation, residential, industrial, commercial, and other miscellaneous purposes.

7 Future scope

Consumption achieved by 2030 could Electricity Consumption is well known that the scope for energy conservation in India is enormous. There are huge gains to be made by upgrading technology, equipment and appliances in a wide range of applications – furnaces, motors, insulation systems, automobile engines, cooking burners, power generating systems, and so on.Prior to the global pandemic, India's energy demand was projected by almost 50% between2019 and 2030, but growth over this period is now closer to 35% in the STEPS, and 25% in the Delayed Recovery Scenario.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.

8 Appendix

```
<!DOCTYPE html>

<html lang="en-US">

  <head>

    <meta charset="utf-8" />

    <meta name="viewport" content="width=device-width" />

    <title>My Test Page</title>

  </head>

<body>
```

Plugging into the future;An Exploration of Electricity Consumption Patterns

Introduction

Electricity consumption represents the amount of electrical energy that has been consumed. Electricity demand represents that rate at which electrical energy is consumed for a needed output rating in units of ? or kW. Electric energy consumption is the form of energy consumption that uses electrical energy. Electric energy consumption is the actual energy demand made on existing electricity supply for transportation, residential, industrial, commercial and other miscellaneous purposes. The national electric grid in India has an installed capacity of 370.106 GW as of 31 March 2020. During the fiscal year 2019-20, the total electricity generation in the country was 1,598 TWh, of which 1,383.5 TWh generated by utilities. The per capita electricity consumption is low compared to most other countries despite India having a low electricity tariff.

Purpose

In the world India is the third largest producer and consumer of electricity. India has seen extraordinary successes in its recent energy development, but many challenges remain, and the Covid-19 pandemic has been a major disruption. The levers and decisions that bring them about, and the interactions that arise across a complex energy system. Prior to the global pandemic, India's energy demand was projected to increase by almost 50% between 2019 and 2030, but growth over this period is now closer to 35% in the STEPS, and 25% in the Delayed Recovery Scenario.

Dashboard and Story

<noscript></noscript><object class='tableauViz' style='display:none;'><param name='host_url' value='https%3A%2F%2Fpublic.tableau.com%2F' /> <param name='embed_code_version' value='3' /> <param name='site_root' value='' /><param name='name' value='Dashboard3_16808823267820/Dashboard1' /><param name='tabs' value='yes' /><param name='toolbar' value='yes' /><param name='static_image' value='https://public.tableau.com/static#47;images /Da/Dashboard3_16808823267820/Dashboard 1/1.png' /> <param name='animate_transition' value='yes' /><param name='display_static_image' value='yes' /><param name='display_spinner' value='yes' /><param name='display_overlay' value='yes' /><param name='display_count' value='yes' /><param name='language' value='en-US' /></object> <script type='text/javascript'> var divElement = document.getElementById('viz1681177671874'); var vizElement = divElement.getElementsByTagName('object')[0]; vizElement.style.width='100%';vizElement.style.height=(divElement.offsetWidth*0.75)+'px'; var scriptElement = document.createElement('script'); scriptElement.src = 'https://public.tableau.com/javascripts/api/viz_v1.js'; vizElement.parentNode.insertBefore(scriptElement, vizElement); </script>

<noscript></noscript><object class='tableauViz' style='display:none;'><param name='host_url' value='https%3A%2F%2Fpublic.tableau.com%2F' /> <param name='embed_code_version' value='3' /> <param name='site_root' value='' /><param name='name' value='StoryonElectricityConsumptioninIndia/StoryonElectricityConsumptioninIndia' /><param name='tabs' value='yes' /><param name='toolbar' value='yes' /><param name='static_image' value='https://public.tableau.com/static#47;images /St/Story on Electricity Consumption India#47;Story on Electricity Consumption India#47;1.png' /> <param name='animate_transition' value='yes' /><param name='display_static_image' value='yes' /><param name='display_spinner' value='yes' /><param name='display_overlay' value='yes' /><param name='display_count' value='yes' /><param name='language' value='en-US' /></object> <script type='text/javascript'> var divElement = document.getElementById('viz1681177774398'); var vizElement = divElement.getElementsByTagName('object')[0]; vizElement.style.width='100%';vizElement.style.height=(divElement.offsetWidth*0.75)+'px'; var scriptElement = document.createElement('script'); scriptElement.src = 'https://public.tableau.com/javascripts/api/viz_v1.js'; vizElement.parentNode.insertBefore(scriptElement, vizElement); </script>

Conclusion

Electricity consumption should be saved because it's not all free. Energy conservation is the effort made by us to reduce the consumption of energy by using less of an energy service or using renewable energy. Electricity is the backbone of modern society. Our life will go back to the primitive age without electricity. There is a need for rational use of electricity, as it is largely produced from non-renewable sources like coal and water. Electricity energy consumption is the form of energy consumption that uses electrical energy. Electric energy consumption is the actual energy demand made on existing electricity supply for transportation, residential, industrial, commercial, and other miscellaneous purposes.

</body>

</html>