**REPORT**

Our dashboard on CenterPoint energy provides investors and other stakeholders with information about the company’s environmental, financial, and social aspects.

This power bi report discusses the company’s employee hiring, community impact, distribution of employees among different job categories, workforce composition and company’s contributions to charity.

**Data Source:**

We have obtained the required data from.

1.Different reports available on CenterPoint energy’s website:

* CenterPoint-Energy-2021-Corporate-Sustainability-Report
* CenterPoint-Energy-2022-Corporate-Sustainability-Report
* CNP-Corporate-Responsibility-Reports

2. And the company's Data center.

**Data Entry and cleaning:**

      The data retrieved was entered manually into excel. The data cleaning and transformation was done using excel and power query.

       We had to work on some data modifications in excel like adding distinct column headers, renaming rows and column headers, and sorting data based on data type. Identifying and correcting inconsistencies, mistakes, and outliers in the entered dataset was part of the data cleaning process. Missing values were identified and handled by either inputting data or eliminating partial records. To protect data integrity, duplicate entries were detected and eliminated. Outliers were investigated to see whether they were real data points or errors. Adjustments were made as needed. Formatting concerns such as conflicting date formats, inconsistent unit usage, and non-standard characters were addressed.

Data was confirmed using source documentation to ensure accuracy. We removed many useless columns, cleared out unwanted rows and duplicates. Changes were made for several categories to show comparison.

**Dashboard:**

         Based on the data obtained, we created multiple visuals, each giving out its own set of information.

         We used a stacked bar chart to understand the hiring trend by CenterPoint energy based on age over the past few years(2019, 2020, 2021, 2022). We categorized the employees into different age groups: Below 25, 25-30, 31-35, 36-40, 41-45, 46-50, 51-55, 56-60, 61-65, 66,70, 71-80. We used stacked bar chart to represent  distribution of incoming talent across different age groups over the course of the years (2019-2022). Each bar is segmented by age categories and each section within the bar indicates the number of new hires for a certain year. This style of visualization is useful for emphasizing trends and patterns in age-specific recruiting. This method improves our capacity to spot changes in recruitment techniques, prospective demographic preferences, and areas of concentration for talent acquisition activities. Stakeholders can quickly and fully see the age distribution of new hires, supporting strategic decision-making on workforce planning, training, and development programs targeted to the changing makeup of our incoming talent pool.

        Through line and clustered column chart, we could identify the workforce composition of CenterPoint energy. This choice is motivated by the requirement to represent the trends in gender distribution while also providing a thorough breakdown across distinct racial groupings. NAT AM, Asian , Whites, Blacks, NHOP and Hispanics were the races identified. Few people were associated with more than 2 races.  Each column cluster represents a different gender (male/female), while the individual columns within each cluster show the number of employees for different racial groups. This dual visualization method allows stakeholders to see complex trends in both gender and race dimensions, developing a comprehensive knowledge of intersectionality in our workforce. It enables a comparative analysis that not only reveals broad trends but also sheds light on the complexities of worker demographics. This visualization tool enables us to identify areas for development, track progress, and make educated decisions for cultivating a workplace that genuinely reflects our commitment to a varied and equitable environment as we prioritize diversity and inclusion.

          We depicted the data of female and male employees working under different job categories using a line and stacked column chart and a table. The line chart component makes it easier to observe patterns over time by depicting the overall evolution of the whole male and female workforce across all occupational categories. Simultaneously, the stacked column chart acts as the focus point, displaying the gender distribution within each employment group. This enables a detailed investigation of gender representation patterns in various roles. The visualization style used, which combines the clarity of line charts with the deep insights provided by stacked columns, ensures that stakeholders can easily identify regions of balance or inequality and track changes in labor demographics. Most of the male employees were working as craft workers whereas most of the female employees were in the admin side. This visualization's interactive potential allows users to further explore individual job categories, zoom in on patterns, and acquire a more nuanced knowledge of gender distribution in the workforce.

         We used a table to display critical indicators such as total employees, full-time and part-time personnel, executives, managers, professionals, and specialized job roles. Each row represents a particular labor category, while columns indicate different years. This approach enables stakeholders to acquire insights into workforce trends, distribution, and changes over time by quickly comparing workforce metrics across multiple years and categories. We can use this to analyze workforce dynamics, identify areas of growth or contraction, and drive strategic staffing, resource allocation, and people management decisions.

         Overall, workforce data is integral to informed decision-making and strategic planning. Workforce analytics empowers organizations to understand trends, identify opportunities, and address challenges related to employee recruitment, retention, and diversity. This report explores key metrics in the realm of workforce data, focusing on visualizations that illuminate crucial aspects of an organization's human capital. By leveraging data visualization techniques, we aim to provide a comprehensive and accessible view of the workforce, enabling stakeholders to make informed decisions for the betterment of the organization.