

Renewable Energy Efforts Across New York: Levels of Effectiveness and Plans for the Future

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Source Project: People, Politics, and the Environment

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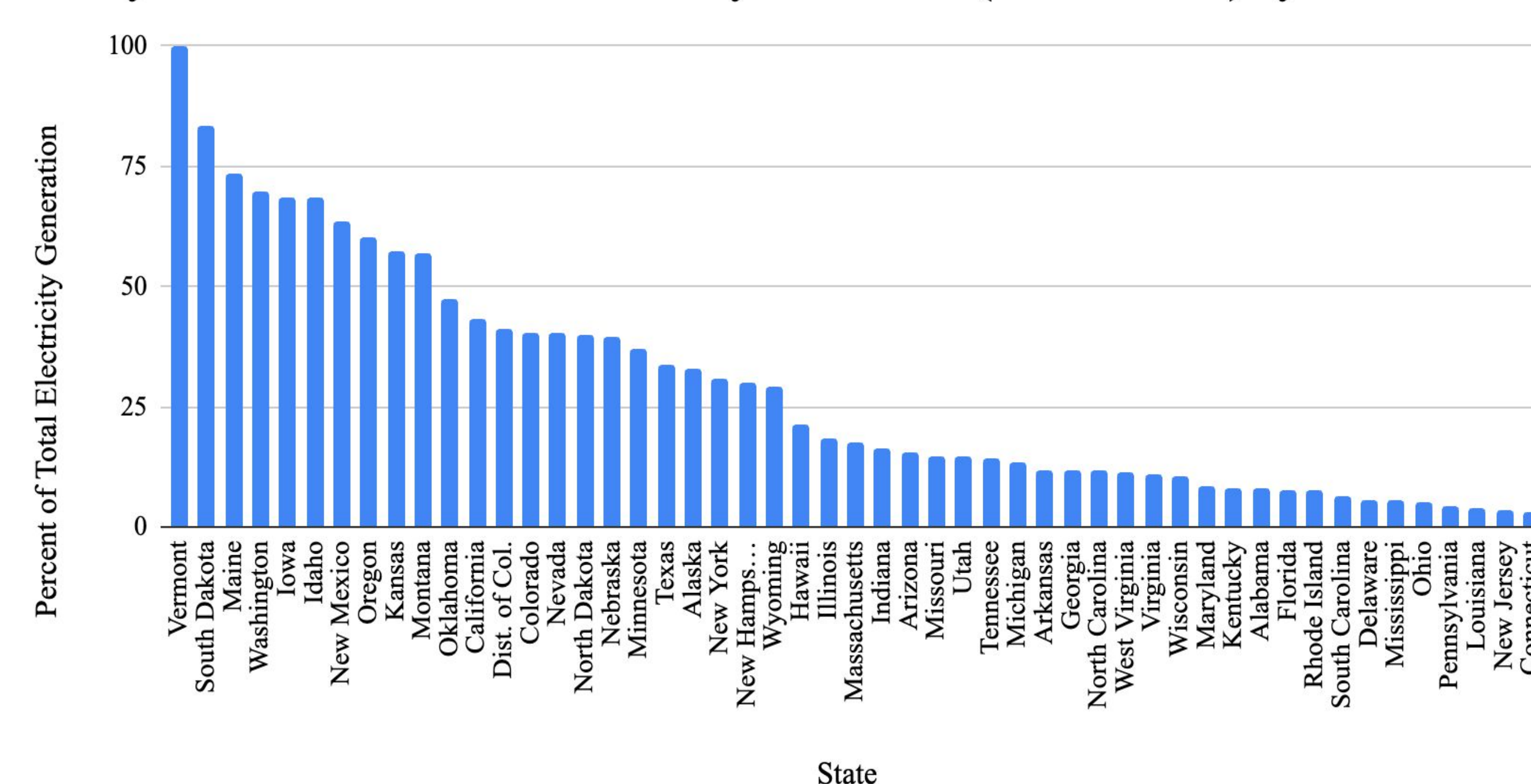
Background

- The electric power sector involves the generation, transmission, and distribution of electricity
- Across the United States, renewable energy accounted for 21% of utility-scale electricity generation in 2023
- Many states are turning to renewable energy as an alternative to fossil fuels
- Renewable and nuclear energy sources provided 51% of New York's in-state electricity generation in 2022
- In 2016, New York adopted the Clean Energy Standard (CES) which aims to achieve 70% renewably sourced electricity by 2030 and a zero-emission electric grid by 2040

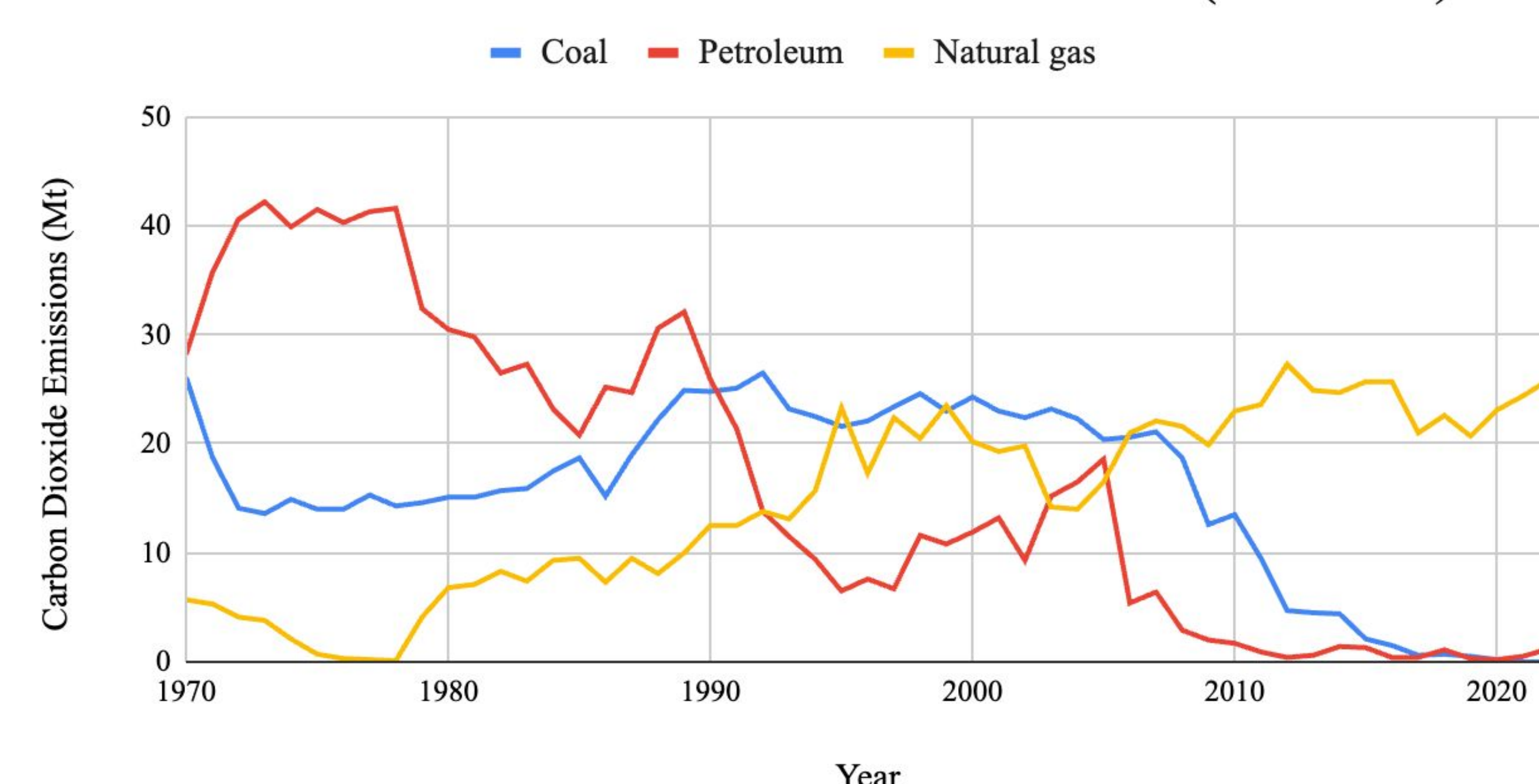
Methodology

- Collect data on New York's electricity generation by renewable sources, energy-related carbon dioxide emissions, and fossil fuel usage
- Examine changes in NY's usage of renewable energy over time and identify what years significant change occurred
- Examine past policy initiatives that coincide with significant changes in data
- Analyze the success of past policy to determine the extent to which future policy plans will be successful
- Conduct literature review on Renewable Portfolio Standards (RPS) and feasibility of converting entirely to renewable energy

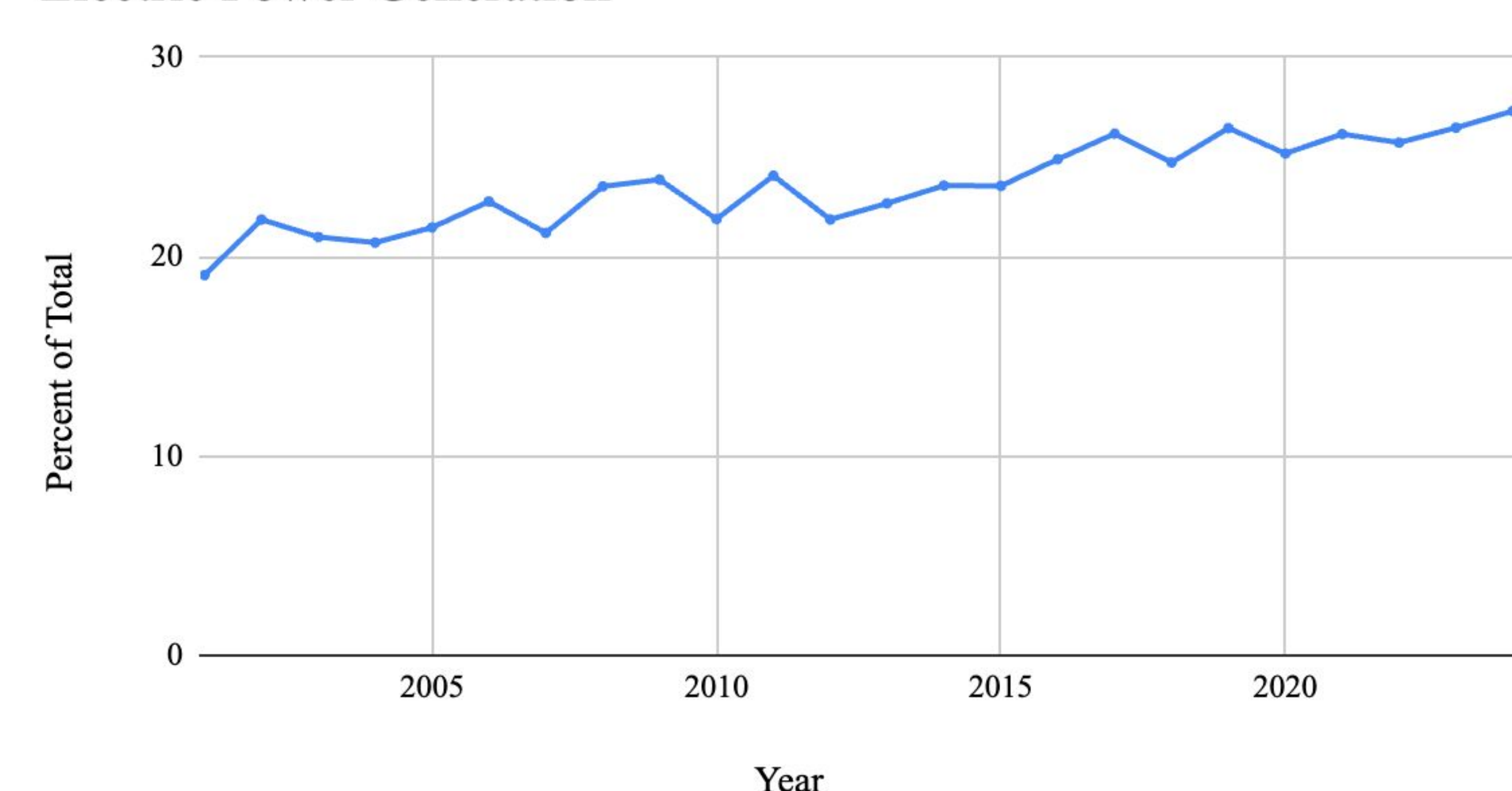
Utility-Scale Net Renewable Electricity Generation (share of total) by State



New York Carbon Emissions from Electric Power Sector (1970-2022)



Net Generation from Renewable Sources as a Percent of Total Electric Power Generation



Findings

- New York relies on renewable sources more than most other states, with almost 30% of the state's electricity generation produced by renewable sources
- New York has steadily increased its reliance on renewable energy as a source for electricity generation since the implementation of its RPS policy in 2004
- New York has considerably decreased its reliance on fossil fuels as an energy source, especially coal and petroleum, but continues to rely heavily on natural gas for electricity generation
- New York's carbon dioxide emissions from the electric power sector have declined

Conclusions

New York is unlikely to achieve the Clean Energy Standard goal of 70% renewably sourced electricity by 2030. Renewable sources including wind, hydroelectric, and solar account for only 30% of total electric power generation. Accompanied with nuclear energy, renewables total roughly 50% of electricity generation. The delay in achieving the goal is due in part by a higher electricity demand and rising project costs. By revising current plans and channeling state resources towards large projects, such as offshore wind, goals can be achieved faster.

References

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