



# Energy Supply Proposal



Group 01-6

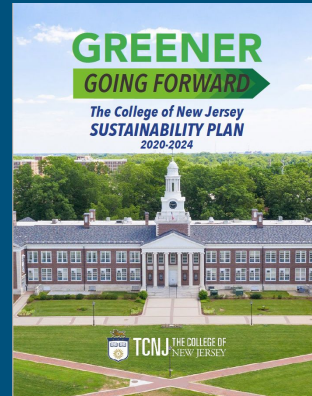


# Problem Statement

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The College of New Jersey continuously utilizes a great deal of power and has different resources in which it can derive such power.

The factors in question regarding this problem include how the environment affects energy usage, and the costs involved to satisfy how much energy is needed for the school to operate.

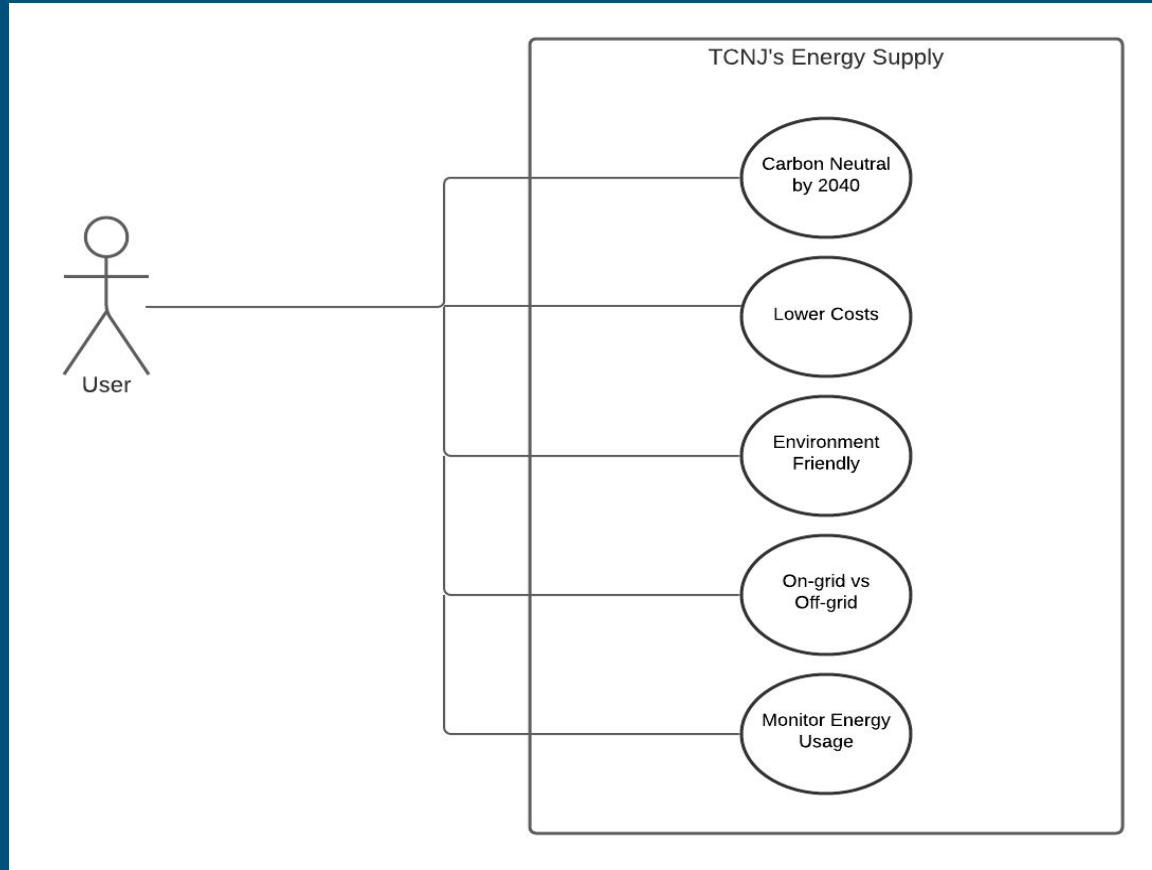


# Objective

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- We aim to resolve the problem regarding energy supply by creating models that exhibit the optimal methods of deriving energy, considering the economic and environmental factors.

# System Boundary Diagram



# Description of the Desired End Product

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- Web application that can graphs environmental and monetary costs against:
  - Demand
- Make an equivalency between carbon footprint and monetary cost.

# Description of the importance and need for the module, and how it addresses the problem

- Can help reduce energy costs and keep them at a minimum
- Can help reduce TCNJ's carbon footprint

# Research and Data

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- Look at various documents to figure out how the power company charges us for power
- Understand the difference in pollution levels of the different energy sources.
- Understand the process behind how the power is generated

# Other similar systems / approaches that exist, and how your module is different or will add to the existing system

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- Bowdoin VS. Colby.
  - Saved 22,546 kWh. Colby lowered their usage by 7%. Bowdoin by 8.7%
- Yale owns 3 power plants and they reduced energy consumption by 17.3% due to their students efforts.
- Low Emissions Analysis Platform (LEAP )
- We will be aiming on the college's consistency first by analyzing the data presented to us, spreading awareness, then our students.



This criterion is linked to a Learning Outcome  
Possible other applications of the system (how it could be modified and reused.)

- Can be used by other colleges to track their energy usage
- Can track the demand each building on campus needs to function
- Find when it is optimal to heat or cool each building
- Use together with other models

# Questions For Us?

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