

Team Number:

School Name:New Mexico for the Arts

Area of Science: Environmental Engineering

Project Title: “Modeling a super-sustainable society, and its benefits”

Problem:

Our world is experiencing continuous population growth as seen by the expansion of our country's urbanization. This in turn is creating a greater demand for energy, which cannot be met by the current usage of fossil fuel, thus creating the need for more sustainable technology to create an urban dwelling that is run on alternative energy.

Why:

This is relevant today, because the climate is changing; negatively affecting the world's environmental stability. The impact of this change reaches all living organisms including humans. With sustainable technology future generations could have limitless energy.

Solution:

We plan on adapting a currently existing town to make it environmentally friendly and energy independent without negative effects on its economic stability. This would not only show the effectiveness of alternative resources, but also that it is a reachable goal. We plan on adapting the town based on current credible data; as well as, simulations based on population growth and its relation to supply and demand of energy; to show optimal placement and usage of resources; and utilize environmental patterns illustrated in the area to perform calculations. The variables in effect include: target years for complete sustainability; both average and outlying data of energy usage; and growth/maintenance cost over an extended period of time. In addition, we will be addressing the need for effective storage of energy. Included would be solutions around the potential side effects of the decided climate. The areas of resource focus would be: solar, wind, water, and desalination.

Team Members

- Marja Graham
- Vincent Versace
- Liam Bell
- Broadus Mobbs

Sponsoring Teacher

- Jennifer Black

Project Mentor(s)

- Put Mentor Name Here
- Put Mentor Name Here