

**The Energy Contest Cover Page**  
**Rutgers New Brunswick Undergraduate Students**  
**Sponsored by The Rutgers Energy Institute**



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*EcoGraphic Statements*

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*Summary*

In the transition to a more sustainable and eco-friendly world numerous actions have been taken, but is it enough if just a small percentage of people are committed to our efforts. The proposal, EcoGraphic Statements, seeks to conserve energy and promote eco-friendly practices by designing and implementing graphic statements throughout campus. These evocative statements are developed so that they initiate a direct energy savings and indirectly provide an interest for the viewer to get onboard with our efforts to “go green.”

## Table of Contents

Introduction.....	1
Proposal.....	2
Implementation.....	4
Design & Results .....	6
Analysis of Costs & Energy Savings.....	7
Timeline & Suggestions for Implementation.....	7
Conclusion.....	9
Works Cited.....	10

## Introduction

When looking at eco-friendly design and practices within Rutgers University one of the most important problems is the lack of knowledge, more importantly the communication barrier between the so called “green world” and everyday college students. Information about green practices are locked within online websites and among certain individuals, based on their general interest and in most cases, major.

Our society, in specific our university, is currently in a transition phase to getting people onboard with this carbon neutral, 2030 challenge. A number of actions toward reaching this goal have been taken, but is it enough? If students do not see the importance and are not interested in eco-friendly practices, reaching this goal will be next to impossible. The proposal set forth does not attempt to give ordinary students all the knowledge of eco-friendly practices but primarily serves initiate a direct energy savings and indirectly entice the viewer, spark their interest and get them onboard with our efforts.

## Proposal

The proposal involves developing an interesting and informative statement, an eco-statement, comprised of two messages, that promote direct energy conservation and indirectly sparks the interest of the viewer to “go green.” More specifically, the eco-statement targets various energy consuming units within buildings using visual language of text and form. This visual language would consist of the following:

### Graphic Logo/Identity

*This is used to isolate the specific energy consuming unit and divert the attention of the viewer from the unit to the eco-statement.*

### Eco-Statement

#### 1<sup>st</sup> Message

*This is used as the attention grabber. It catches the attention of the viewer through a large, bold, green, somewhat blunt and sometimes obnoxious phrase. This adheres to direct energy conservation.*

#### 2<sup>nd</sup> Message

*This is used as an interest grabber. It is comprised of an interesting yet informative phrase. This adheres to an indirect energy conservation which entices the viewer to contemplate about the particular subject.*

Each of these elements are meant to work together to have a significant effect on the viewer. The purpose of having an eco-statement with two messages is to divert the attention from the first message to the second message directly below.

As for the energy consuming units; it can actually be almost anything that uses energy within a building. Some of the units I've targeted are outlined below:

- Elevators/ Stairs\*
- Garbage Disposal
- Computers
- Printers
- Outlets
- Light Switches
- Windows
- Water Fountains\*
- Heating Ducts
- Lights
- Toilets

\*Units that have already been experimented with and tested

# Implementation

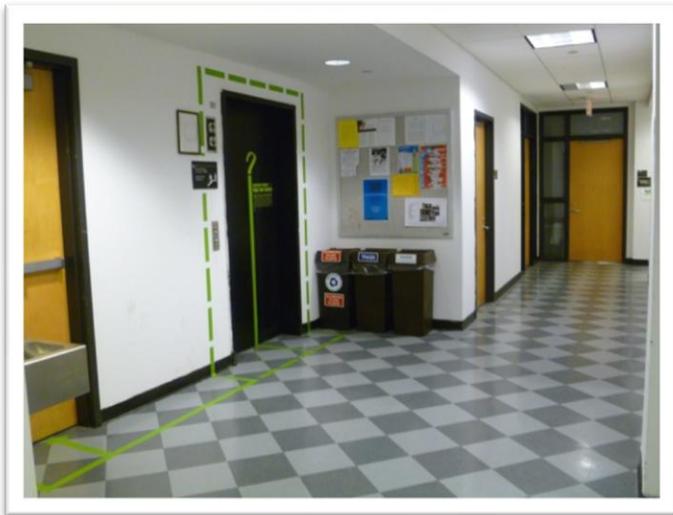
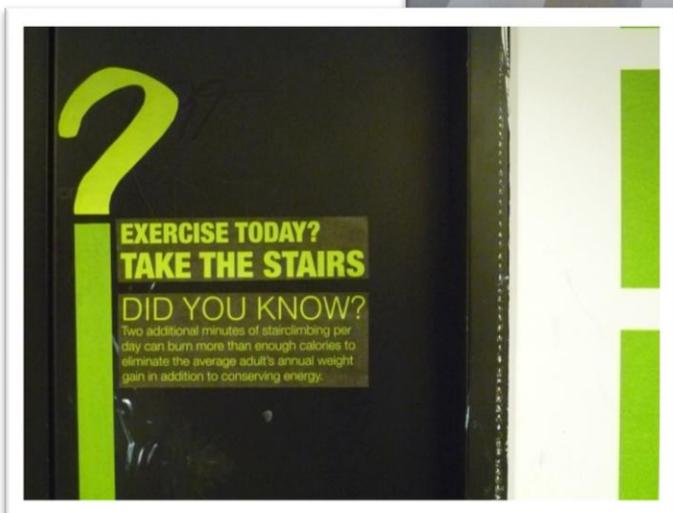
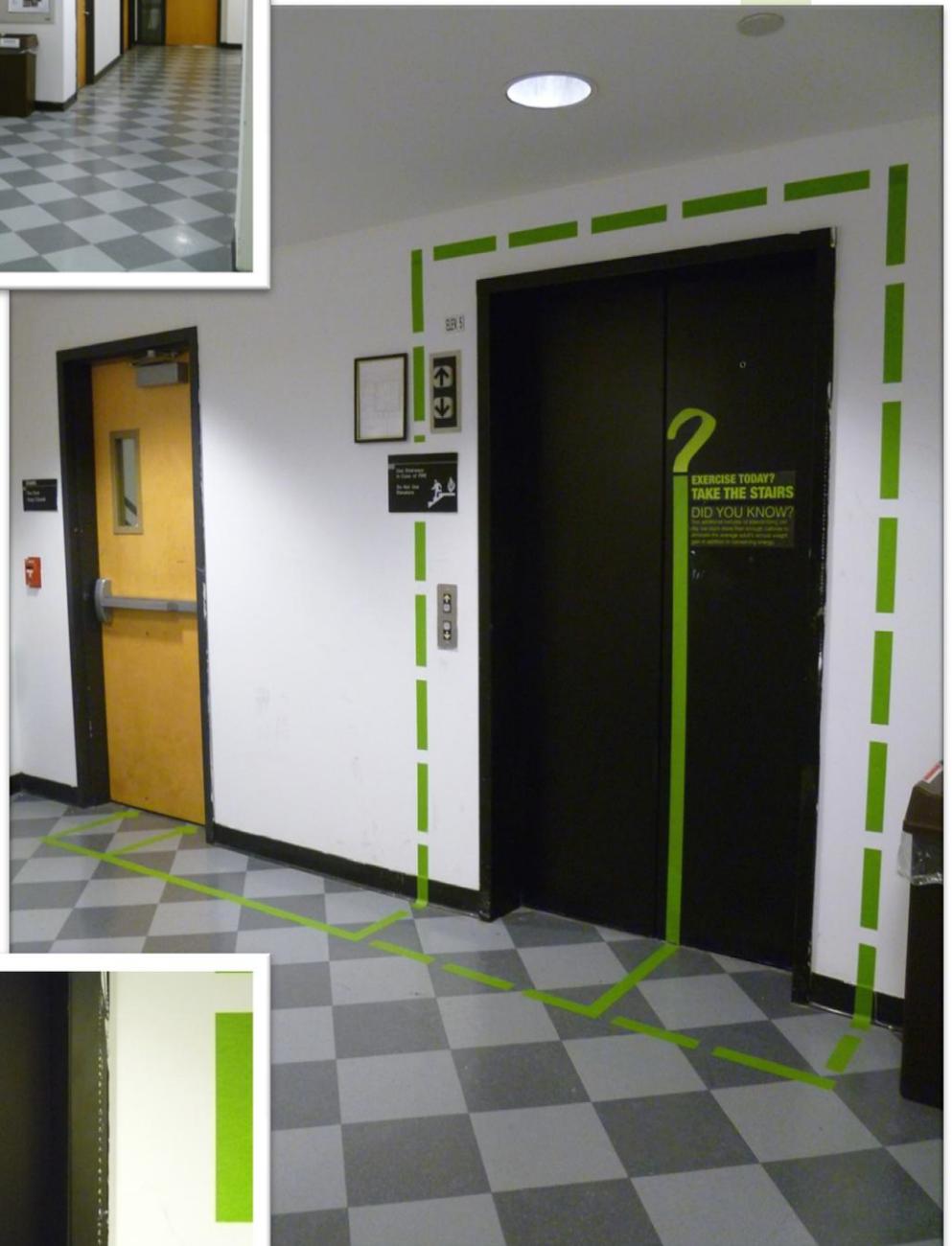


Figure 1 - Example of an EcoGraphic Statement on an elevator.

1<sup>st</sup> Message – EXERCISE TODAY?  
TAKE THE STAIRS

2<sup>nd</sup> Message – DID YOU KNOW?  
Two minutes of stair climbing per  
day can burn more than enough  
calories to eliminate the average  
adult's annual weight gain in  
addition to conserving energy. [2]



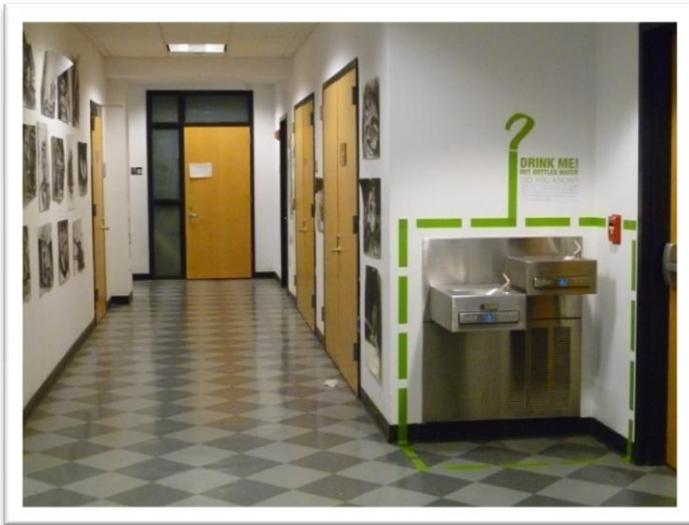


Figure 2 - Example of an EcoGraphic Statement on a water fountain.

1<sup>st</sup> Message – DRINK ME!  
NOT BOTTLED WATER

2<sup>nd</sup> Message – DID YOU KNOW?  
Bottled water, though not proved to be any better than tap water, requires oil to make the plastic, produces emissions from shipment and, since less than 25% are recycled, deposits two billion pounds per year in landfills. [4]



## Design & Results

These examples were very effective in their design and results. Having been constructed and tested in the Civic Square building of Rutgers University, design of these EcoGraphic statements had to cater to the needs of the particular environment. Both designs were composed of a dashed green box around the unit and a solid green line that directed the viewer's eye to the eco-statement. In the elevator example an extra green line was added directing people to the stairs. Placements of the actual messages were based on the way people interact with the space. A person waiting for an elevator or bending down to drink water would be inclined to read the messages. Content of the messages provided the spark of interest. The water fountain example referenced bottled water and its negative effects. The elevator barely spoke about conserving energy but about exercise and weight loss.

The results were impressive. A small test was conducted to analyze the impact of the eco-statements on the viewer. The tests consisted of random people who happen to use the particular building unit at the time. They were not told anything or given any information relative to the topic. The eco-statements had both direct and indirect energy conserving results.

In the elevator test, every single person that waited for the elevator read the eco-statement and of them 11 out of 20 students took the stairs. Over 50% of the people that originally waited for the elevator took the stairs. Indirect results were found through conversations that were initiated by the eco-statements. While waiting for the elevator some people began speaking about the general topic of the message. This gives way to the idea that an interest had been formulated. The water fountain test, appealing to more indirect results, was conducted based on people who read the eco-statement before, during or after drinking from the fountain. 8 out of 10 people who drank

from the fountain read the eco-statement. This does not include all the other people who read it while passing by.

### *Analysis of Costs & Energy Savings*

One of the strongest features of the design is the minimal cost of execution. The only cost for involved includes printing. The development and implementation of two EcoGraphic Statements proves the inexpensive and feasible nature of the proposal.

Energy Savings can be classified into two different categories, direct (short term) and indirect (long term). Direct savings is identified in the first message. Light switches that say “TURN ME OFF!!” or elevators that say “DID YOU EXERCISE TODAY? TAKE THE STAIRS” translates directly into conserving energy. Indirectly, energy savings can be tremendous. The second message proposes the idea that students who read the message might gain an appreciation for their environment, thus leading to long term energy savings. After reading that “One drop of dripping water per second wastes 2,700 gallons of water per year”, [3] people would see the importance of shutting off a faucet and conserving water. This statement along with other statements around campus would entice people to formulate an interest. Imagine seeing these EcoGraphic statements in numerous buildings throughout our 5 campuses; people would be inclined to find out more. Long term energy savings occur not only on campus but wherever students happen to go, whether it would be school, work, home or even the confinements of their own room. The benefits are immeasurable.

### *Timeline/Suggestions for Implementation*

Implementation has already begun with interesting results. The ease of implementation plays an important role in the timeline of the project. New EcoGraphic Statements can always be

developed. It's a matter of coming up with a creative/interesting message and executing them using certain strategies. This brings about suggestions for implementation.

To form an effective statement, the design should be based on the units surrounding environment. For example, in a classroom or lecture hall, students are facing a certain direction for a period of time. Having an eco-statement in front of the students would, if not immediately then during sometime in the class, cause them to read it. Another example is shown in figure 1. In this, the eco-statement is placed right in front of the people waiting for the elevator. This causes the viewer to be inclined to see it. Location should also be considered in forming an effective statement. This can be considered based on its usage. This can range from lecture halls, classrooms and hallways to the privacy of a bathroom. Development, ideas and execution of the EcoGraphic Statement can be done by the students themselves. This can be accomplished through incentives such as extra credit from professors, group projects in certain classes or even with the help of "green" organizations and clubs on campus. Students do not need to follow this specific design, but can form their own visual communicative statements using the same underlying principals. It's also important that most of these messages be driven from information pertaining to Rutgers University and not just general energy conserving information. Messages should be based on the universities energy consumption, the waste we accumulate, etc. An example is identified in Statement 3 regarding toilet paper usage. *Rutgers replaces over 72,000 rolls of toilet tissue annually, which equates to about 14,000 miles.*[5] This was found directly off the Rutgers Energy Institute website. This is important because this information pertains to the students themselves and how it affects their lives within the university.

## Conclusion

Imagine eco-statements throughout our 5 campuses having lasting impressions on the 35,000+ students at Rutgers University. Eco-friendly concerns and energy savings would go beyond campus to their jobs, homes and everywhere else they might go. These benefits are immeasurable. With its inexpensive and feasibility nature it is not just an idea but something we can work on and implement. EcoGraphic Statements have the opportunity to get everyday students concerned about the environment, onboard with our efforts to “go green” and help secure a sustainable future.

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