

**Kiddia Talley (kstalley@aggies.ncat.edu)**

**Robert Powell (rpowell@ncat.edu)**

**Undergraduate Architectural Engineering Student**

**North Carolina A&T State University**

**“Solar Revolution” Research Abstract**

**What Has Been Done?:**

My research on Solar Energy began summer of 2014 with the assistance of my mentor Professor Powell and NACME's Green Technology grant. NACME is a National Action Council for Minorities in Engineering, and I am currently a scholar for their program; the program was in fact the catalyst for my research being that they provided me with the funds to get started. Firstly, my research started off simply with me just browsing the internet searching for different types of Solar Energy and the utilization of them. Consequently, I learned that there are three main forms of Solar Energy, which is Passive Solar Energy, Active Solar Energy, and Photovoltaic Energy. Obviously, all of the forms of Solar Energy are important to Energy Efficiency, however my research will be more focused on the promotion of Photovoltaic Energy production since it provides more than one solution to today's energy issues.

### **What Is Happening Currently?:**

Meanwhile, I am currently conducting a proposal for Greensboro's City Council in regards to receiving assistance with the encouragement of city-wide solar energy usage for residential and commercial properties. Hence, I have recently attended a city council meeting with my mentor since he is a part of a group known as "The Growing Solar Group in Greensboro", in which they introduced the idea of widely advocating the use of solar energy in Greensboro. In my opinion, the meeting turned out great and the proposal was well thought out with substantial facts to back up their vision. As a result, the city council gave the group the task of conducting a report that included the:

- *Initial costs for PV systems*
- *A list of other advanced sustainable cities in North Carolina*
- *The restrictions placed on the installation of PV systems by Duke Energy*
- *The group's realistic goals, the history of what has been done in relation to PV systems*

- *Are there government programs available to assist with funding or advertisement of use of Photovoltaic Energy*

So, my mentor gave me the task of conducting the report, in which still needs to be pitched to the council soon. Yet, I have become aware of a Solar Energy group known as NC WARN, in which works for a swift North Carolina transition to energy efficiency and clean power generation. In fact, the group is still progressing with the initiation of other groups like “Solarize Raleigh”, and “Solarize Durham.”

### **What Needs To Be Done?:**

With all that being said, my future plans include becoming more involved with the group NC WARN because they are progressively trying to change the structure of our environment, and I wish for Greensboro, NC to also be included in this new environment. More specifically, I want to be a part of their efforts to support the new bill, the NC House Bill 245, the Energy Freedom Act. To elaborate, the bill brings affordable solar power with the “no money down solar installation” option, if passed by both houses in legislature. Thus, my plans for the summer of 2015 are to help get this bill passed in any way that I can, and assist with the education of Solar Energy and the benefits that it provides to all of humanity.