Green Energy: A Necessity or Nothing More Than a Luxury?

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Author’s Note

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*Abstract*

Green Energy: A Necessity or Nothing More Than a Luxury is a research report constructed by Michael Jan Santos an English Writing Student in the Northern Marianas College. The paper was written comparing the pros and cons of obtaining green energy devices and eventually leading the readers on to the idea of it actually being an excellent long term investment. A survey of 24 CNMI residents proved that more and more people, especially the younger generation, should be aware of green energy. An interesting finding in the survey analysis was that, among teens, very little is known about alternative saving devices and the procedures of installations taken in their region yet they carry negative or indifferent feelings towards it. This paper argues the imperativeness of installing alternative saving devices not only for the purpose of the environment, but for the people having to pay for electricity bills as well. Moreover, it stresses how the island should at least take small steps if obtaining bigger instruments are not an option.

Green Energy: A Necessity or Nothing More Than a Luxury?

 As far back as mankind can go they have always been very much interested in things that they either does not know very well, or have no control over. As time progressed, however, our species has begun to conquer things we have never thought possible. Creating devices that allow us to soar high in the sky or dive deep underwater, our race is slowly but surely attaining the knowledge and technology only depicted in a science fiction movie. The problem with it though, is that so many resources were used to obtain that bit of information. After so many failed attempts, and persistent struggles, the limited resource in the world is being depleted dramatically. Even now with all this modern devices that are operational solely on the use of fossil fuels, the number of waste is only being increased. The way humans are now, there is little to no way to preventing the wastes from stopping altogether. Fortunately, alternatives to using fossil fuels have been sought out for and found. One of these alternatives is called green energy. Green energy basically uses the environment around us, as a fuel source whether it being water, air, or forms of waste. With enough of these devices together, large areas can be supported without wasting any natural resource. Unfortunately, large amounts of devices will be needed and that could be a bit too pricey for several countries; such as the CNMI. The CNMI, with it being fairly far out from the mainland, may have to pay extra for fuels to be sent. Knowing that, the islands being self sustaining would be ideal considering all the long-term benefits these newfound instruments can offer. This academic research paper was written with the intent of helping weigh out the pros and cons of obtaining alternative saving devices and see if green energy is a necessity, or nothing more than a luxury.

 In actuality, green energy being used in the islands of Saipan, Tinian, and Rota does not seem that far fetched. Of course the costs of such things would be a fortune and Saipan already has problems of its own in terms of debt, so the proposal for their installations would naturally be declined out of concerns of more debt. However, green energy is more than just a household appliance; it is an investment to saving money in the future. As much as people do not believe it, alternative energy has been mentioned on the island of Saipan for quite some time now.

 According to a local newspaper by the name of Saipan Tribune, news of alternative energy devices have been mentioned quite a few times in the past decade. On one of its most recent articles, delayed plans to have energy saving devices installed in public schools have finally been set into action sometime last year. The article stated that “The CNMI Division of Energy received $6.5 million from the U.S. Department of Energy for renewable energy projects, $2.4 million of which was given to PSS for the installation of wind turbines and solar panels in 10 schools. (Saipan Tribune, par 3)” proving that the United States really does have some form of interest in the well being of the CNMI, at least to the extent of using solar panels and wind turbines. To be given a large sum of money for something that some people may think of as “trivial”, it goes to show that alternative energy is not just some idea that has foundation-less statements and claims. The project was also meant to be excellent practice for the island in pertinence to using the devices first hand. They may learn to be more considerate when around them as they are pretty fragile and see to it the proof that large amount of money can be saved yearly.

**Literature Review**

Between the months of October and November, searches were conducted pertaining to green energy being applied in countries. Getting a few ideas here and there, I then began to narrow down my research on places similar to our island; eventually just having searches solely for green energy projects or applications in the CNMI. At first, a bunch of useless articles popped up with too many opinions and groundless arguments all mentioned in the paragraphs. Sooner or later I would come across several noteworthy pieces, having dates and other useful information that could help back up my thesis. With the little information I managed to obtain, I decided to categorize them according to what they addressed. I found information pertaining to green energy projects proposed and/or carried out in the CNMI and how the CNMI would be able to pay for them considering their financial crisis at the moment, and places that used or is using green energy.

 The first thing I found when searching up data pertaining to green energy in the CNMI is the “green” project that was scheduled for Saipan Southern High. It mostly mentions the school being the first of 10 other public schools to receive wind turbines and solar panels. According to the article “SSHS will be able to harness as much as 165 kilowatts, enough solar and wind power to run the whole school (Saipan Tribune, par 4).” Most of the information had other projects such as the 1000 light bulbs installed in the streets and the wind turbines at Garapan Elementary School.

 In the aspects of how the CNMI would have to get the money in order to afford all the expensive equipment, companies in and out of the CNMI have been trying to cooperate to make everything run smoothly. Turns out, several off island companies have taken an interest in the well being of the CNMI is terms of electricity. Not including the 2.5 million dollars donated to install wind turbines and solar panels in public schools, three companies that originated from different countries going by the name of Green Energy Group has ensured “as much as $250 million in investments (Saipan Tribune, par 1)”.

 As to areas that are using green energy at the moment, that was fairly difficult to find educational article on. In the end, I stuck with a journal article conveying the information from Germany using alternative energy from the year 1973, to 2003. It is basically compiled information about the renewable energy develop over the course of a decade or so. Following up with that are policies and other aspects that arose due to this change in industries and government. For the most part, renewable energy was beneficial for the country.

 After all was searched up and everything was in place, I begun to structure my questions. The questions would be able to help our government be more aware on what to consider whenever making more decisions involving green energy. Taking some time to think everything through, the questions I came up are listed as:

1. What are the average costs of green energy products? (Most likely one that can be used on island)

2. Are energy saving devices just as intricate as people claim they are?

3. Is the island even advocating/promoting green energy?

4. Programs available to spread awareness on island?

5. To what extent are alternative energy devices able to cover?

**Methodology**

The beginning of researching more about green energy devices being installed in the CNMI started with created a survey. Thanks to a certain website, I was able to create a survey and send it among my peers, in hopes of obtaining insightful information. The pilot survey was a bit of a failure considering my questions were too presumptuous. According to the feedback I received from my other classmates, the questions were all revolving around the idea that everyone on island was using alternative energy devices; which is definitely not true. Some questions were also too ambiguous so they left it blank. After reading all the constructive criticism, I began to edit my survey for the better.

 While waiting for the surveys to be completed and whilst revising my survey questions based on the feedback I received, I would occasionally research the information I thought I would need for the paper. Whether it would be me at home finished with homework or at school waiting between classes, I would search up journal articles and/or research data on green energy being applied to the islands of Saipan, Tinian, or Rota. For the most part, I would say I obtained a fair enough of secondary information.

 After finding all my secondary data, or enough data for the paper, I began my search for some primary information. Once I completed the task of saving the links of all the articles on a flash drive, I set off to interview and or survey my peers or residents. I first turned to my online surveys, getting quite a few insightful data from it, at least more than I was expecting. I later sent out questionnaires to Saipan Southern High and people I know whom tried installing alternative devices in their homes. Unfortunately, due to recent events, SSHS was unable to respond to my questionnaires and several people were too busy to look them over. The rest of the time was spent searching up more people to send out questions to.

**Analysis/Findings**

 Most of my primary information was contained in the survey sent out among my peers. After taking some time off from obtaining information to revise my questions, I got pretty useful data from the 24 responses once I posted up my final work. An interesting thing I found out when looking over my results was that many of the people did not know much about green energy yet they have negative or indifferent opinions about it. What is understandable is the indifferent opinion, but the least amount of results stemmed from the supporting of green energy. One respondent even replied to the question” Do you believe your community advocates/promotes green energy? If yes, give examples of how they promote them (e.g. Commercials, radio broadcasts). If not, give your opinion as to why that is” with the answer “yes; recycling (Appendix A, par 8).” Ignorance towards this topic has spread to the point where some people are confused between recycling and energy saving devices.

 The interviews were not as successful as I had hoped. I got to interview one person, a man I was introduced to who has been using green energy devices in his home for about a decade. Thanks to him, I got to receive some information on green energy without having to worry if his replies are a bit to biased or groundless. Considering he worked with them for such a long time, he should know enough information to answer the question I gave him. One interesting answer he gave me when asked about which alternative energy saving device should be installed on island was “Solar Panels. Definitely solar panels. Take the heat of our island and put it to good use. (Appendix B, par 8).” That idea should be taken into consideration by our government when deciding on which equipment to obtain for the environment here. Just because they save electricity it does not mean they work just as well as every other device in any circumstance.

**Discussions/Conclusion**

 Looking at the pros and cons of green energy being implemented in the CNMI was no easy task. Having very little information available online and few people with expertise and willingness to cooperate on island, mention having some difficulty would be a bit of an understatement. However, it was all worthwhile to get to be more aware of what is going on in the government. Not only is the government of the CNMI in electricity debt, but very little is being done to spread awareness of it. Companies have reached out in the past in hopes of giving benefits to the island; offering millions of dollars just to try out devices that could save thousands of dollars annually.

 In conclusion, green energy is definitely a necessity in the CNMI, if handled properly that is. Buying any alternative energy saving device is not going to make certain of a long term benefit, an instrument that works well with the environment will. Coming from the words of someone who has been living off of devices such as these advised getting solar panels considering the island almost always gets sunlight. As for the government, spreading awareness of green energy and cooperating with companies off island is the only way to ensure the electrical well being of the island for future generations.

**Reference:**

* SaipanTribune. (2013). Delayed green energy project finally pushes through, p. 1.

Retrieved from <http://www.saipantribune.com/index.php/c1aeb5a8-1dfb-11e4-aedf-250bc8c9958e/>

* Conrad, M., & Ness, J. (2013). Strategic Plan.

*Commonwealth of the Northern Mariana Islands,* *1*(1), 24-24.

Retrieved November 30, 2014, from <http://sablan.house.gov/sites/sablan.house.gov/files/documents/CNMI_Strategic_EnergyPlan.pdf>

* Wustenhagen, R., & Bilharz, M. (2004).

Green energy market development in Germany: Effective public policy and emerging customer demand. *Energy Policy,* *34*(1), 16-16. Retrieved December 2, 2014, from [www.elsevier.com/locate/enpol](http://www.elsevier.com/locate/enpol)

* ‘Green energy’ project kicks off at Saipan Southern High. (2011, March 14).

*Saipan Tribune*. Retrieved December 2, 2014, from <http://www.saipantribune.com/index.php/bb4aa2b5-1dfb-11e4-aedf-250bc8c9958e/>

* $250M renewable energy project proposed for CNMI. (2013, July 24). *Saipan Tribune*.

Retrieved December 2, 2014, from <http://www.saipantribune.com/index.php/c1c10772-1dfb-11e4-aedf-250bc8c9958e/>

**Appendices**

**Appendix A**

# Do you believe your community advocates/promotes green energy? If yes, give examples of how they promote them (e.g. Commercials, radio broadcasts). If not, give your opinion as to why that is.

Nope..haven't been seeing promotions for green energy

11/26/2014 10:34 AM [View respondent's answers](https://www.surveymonkey.com/analyze/browse/NXsuerymnR7IKTL8rjpZnB67aBJhlfVNzAsQQnQXh18_3D?respondent_id=3610813991)

Not really. Not that I know of.

10/14/2014 10:12 PM [View respondent's answers](https://www.surveymonkey.com/analyze/browse/NXsuerymnR7IKTL8rjpZnB67aBJhlfVNzAsQQnQXh18_3D?respondent_id=3518402877)

they dont...i dont know

10/12/2014 11:11 PM [View respondent's answers](https://www.surveymonkey.com/analyze/browse/NXsuerymnR7IKTL8rjpZnB67aBJhlfVNzAsQQnQXh18_3D?respondent_id=3514996281)

Commercials?

10/9/2014 6:01 PM [View respondent's answers](https://www.surveymonkey.com/analyze/browse/NXsuerymnR7IKTL8rjpZnB67aBJhlfVNzAsQQnQXh18_3D?respondent_id=3509731938)

Green energy gives us more healthy than electricity. On internet, news, newspaper usually promote green energy.

10/9/2014 9:22 AM [View respondent's answers](https://www.surveymonkey.com/analyze/browse/NXsuerymnR7IKTL8rjpZnB67aBJhlfVNzAsQQnQXh18_3D?respondent_id=3509197043)

Yes. Joeten superstore has solar panels, kagman guy has wind energy

10/7/2014 3:04 PM [View respondent's answers](https://www.surveymonkey.com/analyze/browse/NXsuerymnR7IKTL8rjpZnB67aBJhlfVNzAsQQnQXh18_3D?respondent_id=3504669064)

They have to organize it well to enjoy their life better.

10/7/2014 2:49 PM [View respondent's answers](https://www.surveymonkey.com/analyze/browse/NXsuerymnR7IKTL8rjpZnB67aBJhlfVNzAsQQnQXh18_3D?respondent_id=3504656685)

yes; recycling

9/29/2014 11:03 PM [View respondent's answers](https://www.surveymonkey.com/analyze/browse/NXsuerymnR7IKTL8rjpZnB67aBJhlfVNzAsQQnQXh18_3D?respondent_id=3487632138)

I don't know if they do or do not because I have just currently moved here.

9/28/2014 1:07 AM [View respondent's answers](https://www.surveymonkey.com/analyze/browse/NXsuerymnR7IKTL8rjpZnB67aBJhlfVNzAsQQnQXh18_3D?respondent_id=3485668403)

No. We don't hear of it. We all know that.

9/21/2014 9:38 PM [View respondent's answers](https://www.surveymonkey.com/analyze/browse/NXsuerymnR7IKTL8rjpZnB67aBJhlfVNzAsQQnQXh18_3D?respondent_id=3472423730)

It doesn't. If it does then i have not heard of it.

9/21/2014 8:22 PM [View respondent's answers](https://www.surveymonkey.com/analyze/browse/NXsuerymnR7IKTL8rjpZnB67aBJhlfVNzAsQQnQXh18_3D?respondent_id=3472386513)

Yes. Some houses have switch to using solar powered roof tops.

9/21/2014 8:18 PM [View respondent's answers](https://www.surveymonkey.com/analyze/browse/NXsuerymnR7IKTL8rjpZnB67aBJhlfVNzAsQQnQXh18_3D?respondent_id=3472384447)

Not that I've seen. Saipan really should though, solar panels would be helpful as we are a tropical island and we get a lot more sun than other places worldwide.

9/21/2014 7:48 PM [View respondent's answers](https://www.surveymonkey.com/analyze/browse/NXsuerymnR7IKTL8rjpZnB67aBJhlfVNzAsQQnQXh18_3D?respondent_id=3472370719)

No. I do not see any thing used to promote green energy

9/21/2014 7:48 PM [View respondent's answers](https://www.surveymonkey.com/analyze/browse/NXsuerymnR7IKTL8rjpZnB67aBJhlfVNzAsQQnQXh18_3D?respondent_id=3472370895)

I don't recall many commercials on going green in the CNMI..most are U.S commercials advising watchers to go green, but close to none of the commercials/radio-stations in the CNMI suggest us to go green.

9/21/2014 3:50 PM [View respondent's answers](https://www.surveymonkey.com/analyze/browse/NXsuerymnR7IKTL8rjpZnB67aBJhlfVNzAsQQnQXh18_3D?respondent_id=3472280219)

no

9/21/2014 12:52 PM [View respondent's answers](https://www.surveymonkey.com/analyze/browse/NXsuerymnR7IKTL8rjpZnB67aBJhlfVNzAsQQnQXh18_3D?respondent_id=3472214737)

No, although there are grants available and companies have donated equipment to the island and island govt there has been little done to maintain or sustain or even promote it.

9/21/2014 12:12 AM [View respondent's answers](https://www.surveymonkey.com/analyze/browse/NXsuerymnR7IKTL8rjpZnB67aBJhlfVNzAsQQnQXh18_3D?respondent_id=3471710245)

i dont know

9/20/2014 11:44 PM [View respondent's answers](https://www.surveymonkey.com/analyze/browse/NXsuerymnR7IKTL8rjpZnB67aBJhlfVNzAsQQnQXh18_3D?respondent_id=3471688404)

Yes. They give away free bags full of energy saving appliances like light bulbs and stickers

9/20/2014 7:27 PM [View respondent's answers](https://www.surveymonkey.com/analyze/browse/NXsuerymnR7IKTL8rjpZnB67aBJhlfVNzAsQQnQXh18_3D?respondent_id=3471540638)

Yes. The radio (97.9)always talks about what products are energy saving like light bulbs

9/19/2014 7:42 PM [View respondent's answers](https://www.surveymonkey.com/analyze/browse/NXsuerymnR7IKTL8rjpZnB67aBJhlfVNzAsQQnQXh18_3D?respondent_id=3469651384)

a few people in my community advocate for green energy but no one really has the money to do anything

9/19/2014 7:31 PM [View respondent's answers](https://www.surveymonkey.com/analyze/browse/NXsuerymnR7IKTL8rjpZnB67aBJhlfVNzAsQQnQXh18_3D?respondent_id=3469638281)

yes. 360 building, American Memorial Park have solar and wind farm (community facilities and large commercial building)

9/19/2014 7:05 PM [View respondent's answers](https://www.surveymonkey.com/analyze/browse/NXsuerymnR7IKTL8rjpZnB67aBJhlfVNzAsQQnQXh18_3D?respondent_id=3469607055)

**Appendix B**

Hello Mr. Church

My name is Michael Jan Santos, a student at the Northern Marianas College. I have come to you for help in hopes of obtaining insightful information on anything pertaining to alternative energy. After taking some time to carefully form up out my questionnaire for you, this is what I have come up with. Thank you for your time and cooperation.

         What is it that you do that has any pertinence to green energy and how long have you been at it?

 My occupation does not involve alternative energy, however I do have them installed in my home for about a decade.

         What would be the average costs of devices such as solar panels and wind turbines, instruments that could be used easily on island, and are they easily attainable?

 The solar panels installation in my home cost me about $22,000. Would have cost more if my home were bigger and depending on how much kilowatts I want to be covered by them.

         Is energy saving devices as intricate and elaborate as people say? Is the average person able to use them with the aid of a manual?

 True there are some complications to the devices and several pre cautions have to be made in order to avoid damaging these frail things as well as keeping your family safe as well. I personally had them installed in my own home and considering how frail they can be, a person should be more knowledgeable of how the procedures are to be carried out before tampering.

         Have you heard of any advocating of green energy on island, and if so, please explain.

 The most I heard was about the public schools receiving a little over 2 million dollars to incorporate wind turbines into the property. That news itself did not receive much publicity and I believe it was mentioned several times months before it was actually put into place.

         Do you believe there are any programs or organizations that are helping with the familiarity of green energy among the people of the island? (If so please explain) Do you feel that majority of people are ignorant towards this topic?

 I do believe there are programs out there, or for the most part I wouldn’t be surprised. The question should address, are they doing a good job with informing the public well. I do feel as if majority of the people on island are ignorant towards this topic. Just like everything else they don’t see fit for their island, they block it out and pose judgment on it without much information.

         Are they some small forms of alternative saving devices less financially fortunate families can install in their homes? (Example: Energy saving light bulbs)

 There are several small items a family can invest on. Putting light bulbs and other obvious examples aside, a solar powered flashlight could be used for typhoon season or power outages.

* What devices do you recommend having installed in the everyday homes on island?

Solar Panels. Definitely solar panels. Take the heat of our island and put it to good use. Personally, I don’t see much investment in wind turbines as we aren’t as windy as we should be in order to generate the electricity. As for hydroelectric, that sort of thing would be perfect for other areas with running water.