# New Mexico State University College of Education Department of Educational Management and Development

## **Global Leadership through Renewable Energy**

Policy Paper: A Proposal

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Paper Prepared

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Introduction to Educational Leadership in a Global Society
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### Global Leadership through Renewable Energy

#### The Problem:

The United States has been a world leader in technology and industrial might for over 75 years. Ever since World War II the United States has lead in almost all markets around the world in innovation and leadership. Through the last 2 decades the United States has started letting its leadership decline due to policies that hinder development and reward stagnation and in some cases corruption.

The United States has an aging Energy infrastructure based on outdated technologies and programs designed following WWII that have lead to an unstable power grid and questionable future sustainability. (German, 2000) Our choices of current power producing fuels will eventually fade leading to greater crisis globally. The age of the equipment used in our power grids will lead to brownouts and failures.

Most of the power produced today is based on highly polluting Coal and cleaner yet still carbon-producing natural gas. With these carbon producing technologies it is assured that pollution levels in the atmosphere will continue to rise causing a possible climate catastrophe. Whether someone believes in global warming or not is irrelevant. The fact that people have had an effect on the climate is indisputable and has lead to acid-rain, clear cutting, deforestation, and reduced quality of life.

The current economic crisis in the United States has lead to widespread unemployment and reduced financing available for cleaner power producing technologies. Poor administrative policies have lead to a decline in new "green" initiatives in some cases a return to carbon based power producing methods. These

policies have also denied the possible growth in employment options for workers displaced by jobs that have been shipped overseas.

#### The Vision:

I see the United States returning to being the world leader in renewable energy and technology innovation. We can set the standard in efficiency and in global environmental leadership. We can create exports and rebalance the world economy with responsible investment in our own country. We can create jobs managing wind, solar, and biomass facilities as well as building the equipment necessary to equip them by investing in our own future and not increasing our trade deficit.

#### The Solution:

This vision of leadership and future growth can be met through a variety of methods. First and foremost is that we must redirect resources into renewable energy markets. This is perhaps the most painful part of the equation since in the short term it will reduce money to current technology and systems.

These resources include money, education and technology. Increase money and investment is key and critical. Only through sound and sustained investment is there the ability to get where we need to be. Increased funding makes everything else possible.

The increased money will lead to greater education in the renewable field.

Increased education can take several forms. One form is that increased education for the population makes people aware of the benefits of renewable energy and increases support. A second form of education promotes science and technology as key building

blocks to our future and security. A third form builds schools or programs devoted to various renewable energies as their own degrees which will lead to highly educated individuals in the field.

Money and education lead to technology advancements. With greater investment and with more trained individuals we get technology enhancements and increased speed to innovation. This technology innovation is the key to our standing in the world market.

We must commit to building up our energy infrastructure into a world-class system to be seen as a model by the world. This system will be world-class using the best technology and innovation we can muster. With our innovation lead the United States would become the place to go to learn how to introduce systems into other countries.

With the innovation and systems in place we can begin to wean ourselves off of fossil fuels. Included in these alternative systems are wind, solar, biomass, and even nuclear. Even though nuclear is not renewable it is relatively clean and non carbon producing, efficient, reliable, and cannot be ignored. (Bourdaire & Paffenbarger 1997) These cleaner fuels will lead to a massive reduction of green-house gas emissions reducing our impact on the planet including carbon dioxide that is polluting our atmosphere and oceans. (Spotts, 2010)

All of these programs require enhanced policies by the government. The free market will only push innovation so far without government support. That support must take the form of carbon emission limits as well as enforced goals and incentives. These

initiatives also must include provision that the investment stays in the United States to support its own people.

Some of the incentives available include tax credits, where builders of renewable energies get a break in their tax rates. (Pringle, 2009) Feed and tariffs are also available so that green energy facilities get a guaranteed return for the power they feed into the grid. Another incentive is for individuals and corporations to install green energies to reduce their dependencies on the power grid particularly wind generators and solar cells. (DSIRE, 2010)

These incentives and limits will make green energy an even more attractive place for companies to invest leading back to the money issue. With greater investment and growth along with global leadership leads us to employment opportunities. Research related to the investment in renewables stated that with a 25% standard in renewable would create an additional 274,000 jobs. (Navigant, 2010) We would have a well educated work-force with an exportable technology seen as "the" technology that the world needs to solve its issues. Other countries would come to the U.S. to seek out its products.

#### In Conclusion:

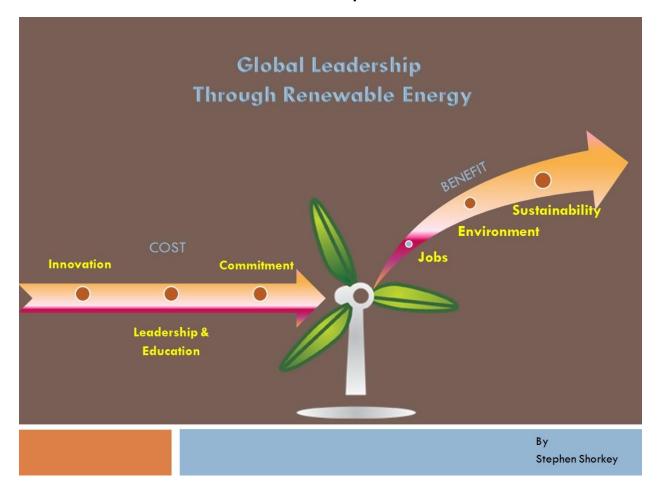
Big changes need to happen in United States investment in renewable energies with regards to money, education, financial stability and environmental controls.

Renewable Energy investments and commitments can be a major vehicle to help the county achieve a leadership status in this growing market. With the right leadership in

place and the right policies we can create a wealth of new jobs and exports solidifying our leadership position in the world and providing security and stability.

## **Appendix**

## **Vision Graphic**



#### References:

German, John (2000, Feb) Sandia-led study recommends predictive modeling tools to head off future power failures, Sandia Lab News, Feb. 11, Vol 52 No 3, http://www.sandia.gov/LabNews/LN02-11-00/grid\_story.html

Bourdaire, J-M & Paffenbarger, J (1997) Nuclear Power and Sustainable Development, The Uranium Institute 22<sup>nd</sup> Annual International Symposium, <a href="http://www.world-nuclear.org/sym/1997/bourd.htm">http://www.world-nuclear.org/sym/1997/bourd.htm</a>

Spotts, Peter (2010, Mar) Ocean acidification: another path to EPA rules on carbon emissions, Christian Science Monitor, Mar 12, <a href="http://www.csmonitor.com/USA/2010/0312/Ocean-acidification-another-path-to-EPA-rules-on-carbon-emissions">http://www.csmonitor.com/USA/2010/0312/Ocean-acidification-another-path-to-EPA-rules-on-carbon-emissions</a>

Pringle, Chanel (2009, Mar) Feed-in tariffs will boost renewable energy investment, Engineering News Online, <a href="http://www.engineeringnews.co.za/article/regional-cooperation-needed-boost-renewable-energy-in-sa-2009-03-19">http://www.engineeringnews.co.za/article/regional-cooperation-needed-boost-renewable-energy-in-sa-2009-03-19</a>

DSIRE (2010), Database of State Incentives for Renewables and Efficiency, <a href="http://www.dsireusa.org/">http://www.dsireusa.org/</a>

Navigant Consulting (2010, Feb) Jobs Impact on a National Renewable Electricity Standard, Navigant Consulting, Feb 4, <a href="http://www.res-alliance.org/public/RESAllianceNavigantJobsStudy.pdf">http://www.res-alliance.org/public/RESAllianceNavigantJobsStudy.pdf</a>