

ARENA Update

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Alliance for Responsible Energy of Northern Arizona

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Helping Keep Rural Communities Safe, Healthy, and Sustainable

Welcome to the first issue of ARENA Update. ARENA is a new organization, and education and outreach are among our most important goals -- and we are reaching out to you. As suits the initial issue, this newsletter gives you a brief introduction to the organization. We hope that you will find ARENA's work to be a benefit to the area, and that we will hear from you in the new year. Kathy Hemenway, Executive Director

Mission

ARENA is a grassroots, community-based group that formed as a result of concerns about the sudden large influx of proposals for wind and solar power plants in Navajo and Apache Counties. We want to help keep our rural communities safe, healthy, and sustainable as the area addresses the possibility of renewable energy facilities locating here. We feel that conscientious stewardship and conservation of local environments, including natural resources, living conditions, and economies, are vital needs as the nation pursues a sustainable energy economy.

Organization

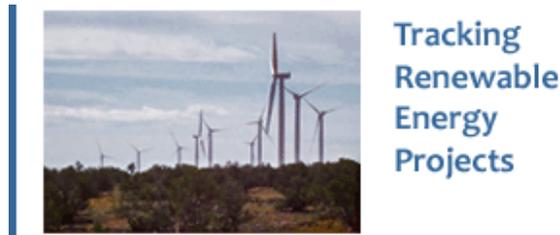
In October ARENA became an Action Team of the Little Colorado River Plateau Resource Conservation and Development Area, Inc. David Newlin, Project Director of the Little Colorado River Watershed Coordinating Council, is our liaison to the RC&D. Newlin is a great resource, providing us with organizational mentoring and education about the local watersheds and water resource issues. Our affiliation with the RC&D enables us to operate under the its 501(c)3 non-profit status, and to accept tax-deductible donations.



Initiatives

ARENA members research project proposals, evaluate possible impacts, and work to educate others and advocate for responsible choices. Given the range of wind and solar projects that are being considered for our area, this takes us into a wide variety of topics, from noise and vibration, which are major issues for wind power plants, to water use, a big issue for concentrating solar power plants.

In pursuing these issues, ARENA has started several initiatives.



ARENA's first initiative involves tracking renewable energy projects as they progress through regulatory processes, and notifying interested people when critical events occur (such as public hearings). We also advocate for responsible choices with regulatory agencies.

Simply tracking what's going is a big undertaking, as 2009 has been a busy year for renewable energy projects in Navajo and Apache Counties. Most notably, Phase I of Iberdrola's Dry Lake Wind Project was constructed and commissioned, and as of October 12, it is operational. The 30 wind turbines located northwest of Snowflake are the first utility-scale wind turbines in the State of Arizona.

Following on the heels of the Dry Lake Wind Project, many other renewable energy projects have been proposed. While there are undoubtedly projects in the works that ARENA is unaware of, the list we have is remarkable. In July a permit was approved for a combined wind and solar power plant at Potter Mesa, and since March permits have been approved for meteorological towers near Snowflake, Woodruff, Holbrook, Joseph City, and Sun Valley (east of Holbrook), and between Springerville and Vernon. The "met towers" will be installed by several different companies in order to help them determine whether wind projects in those locations will be viable.

These projects and others to come will undoubtedly make 2010 another eventful year, as companies rush to begin development in time to obtain grants under the American Recovery and Reinvestment Act of 2009.

Here is a brief list of projects to keep an eye out for.

Snowflake-	Iberdrola's Dry Lake Wind Project Phase II
Woodruff Area	NZ Legacy's F Bar Energy Project

NZ Legacy's Bar J Bar Energy Project
NACEL Energy's Snowflake Wind Energy Facility

**Holbrook-Joseph
City Area** EcoEnergy Project
Disgen's Marcou Mesa Wind Project
Airborn Energy Development Project

Sun Valley EcoEnergy Project

Potter Mesa NZ Legacy's Potter Mesa Energy Project

Springerville Area Vernon Switch Wind Project

For updates on these and other projects, check out the Navajo and Apache County websites (www.co.navajo.az.us, www.co.apache.az.us) and "Wind Projects in the White Mountains" on ARENA's Home Page, <http://www.ARENAWhiteMountains.info>).



Planning Framework

As the counties, Arizona State Land Department, the BLM, and other regulatory agencies evaluate permit applications, it is essential to have processes in place to ensure that issues are addressed as soon as possible. This fall Navajo County began developing a zoning ordinance, and we stepped into the fray with a draft of our "Framework for Navajo County Planning for Utility-Scale Wind and Solar Energy Projects." You can find it at <http://www.ARENAWhiteMountains.info/documents>.



Setback Distances and Noise Measurement

One of the most effective ways to safeguard the health and safety of residents, and to preserve property values, is to site wind and solar power plants in areas that aren't zoned residential, and that don't have residential development or other sensitive uses in place. A second line of defense is to have other zoning rules in place to protect neighbors from the effects of the industrial facilities, such as noise.

Typically, the health and safety of neighbors, and the value of neighboring

properties, is addressed through a variety of restrictions. Among the most important are noise limits and setbacks. Noise limits require noise outside project boundaries to stay below specified levels, and setbacks require project facilities, such as wind turbines, to be at least a minimum distance from project boundaries. The minimum setback distances should be adequate to ensure that noise outside the project boundaries will be below the noise limits.

As has been well known for years, noise limits and setback distances for wind projects in many locations around the world are inadequate, and the results have in some cases been devastating for neighbors. While there are serious problems other than noise, it is often the primary problem, causing annoyance, sleep deprivation, and a wide variety of health effects. In some cases families have had to move despite being unable to sell their homes.

To help protect the health and safety of people in our area, ARENA is studying setback distances, noise limits, and noise measurement procedures. In the first phase of this effort, we surveyed the recommendations experts have made regarding setback distances. Our results indicate remarkable consistency among them; the vast majority of recommendations are in the range of one mile to 1.25 miles (1.5 to 2 kilometers). Check out our bar chart at

<http://www.ARENAWhiteMountains.info/noise/setbacks>.

In the next phase of the study, we are surveying noise standards and guidelines, and looking at reports from people who live near existing wind farms. Also, we are researching procedures for measuring sound and forecasting noise to help predict the noise contours of proposed site plans.



While the effects of wind turbines on birds and bats are well known, wind and solar projects can also affect fish, other wildlife, and insect and rodent populations. Land clearing, soil erosion, removal of native plants, introduction of invasive species, degradation of riparian areas, and noise and vibration can result in a wide variety of problems. Habitat fragmentation, disruption of migration corridors, species avoidance, and mortalities are all possible outcomes.

ARENA members are concerned that natural habitats be preserved whenever developments occur. Working towards that end, we are beginning to study the literature to identify measures to minimize ecosystem damage. Also, in November we hosted a presentation by Dannette Weiss, Habitat Specialist, Arizona Game and Fish Department.

Dannette presented an overview of Game and Fish's new "Guidelines for Reducing Impacts to Wildlife From Wind Energy Development in Arizona," and she talked about effects of Phase I of the Dry Lake Wind Project, such as changes in pronghorn migration.



When we learned about the possibility of concentrating solar power (CSP) plants locating here, we became concerned about the vast amount of water they can use. Following up on David Newlin's suggestion, we invited Kristine Uhlman of the University of Arizona's Water Resources Research Center to speak at a public meeting, and then we began a study of local wells. This initiative, led by Uhlman, will help us determine how vulnerable our water supply is to drought, and help us to get a handle on discharge and recharge rates. This can help us identify safe withdrawal rates, and to predict the impacts of additional pumping on water quality and the water table.

We hope this will be the first of many projects directed toward better understanding and management of our precious water supply.

What You Can Do

Watch for our announcements in the new year, and let us keep you up to date as events unfold. Please join us at our public meetings. If you aren't yet on our mailing list and would like to join, email us at ARENA928@gmail.com. If you don't have email, you can join our phone list by calling Pam Brittain at 536-5914. Let us know if you would like to work on one of our initiatives, or to learn about other volunteer opportunities. Also, you can make tax-deductible donations to ARENA. Make your check out to "Little Colorado River Plateau RC&D," write "ARENA" on the memo line, and send it to ARENA, PO Box 3081, Snowflake, AZ 85937. Thank you!

Contact Us!

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