



North County Watch

Looking Out Today For Tomorrow

North County Watch is a 501 C3 non profit organization committed to sustainable development in north San Luis Obispo County. We are concerned about development and other land use issues that impact the environment, natural resources, conversion of ag lands to other uses and quality of life issues.

We support your efforts to take a comprehensive look at the role and impacts of alternative energy choices on BLM lands including identifying policies that minimize damage and protect natural and cultural resources for solar projects, ~~deferring processing any new applications for large solar projects until the new program is developed and~~ not to process applications for National Monuments (Carrizo Plain) and other lands in the National Landscape Conservation System

Our experience is with proposed facilities in the Carrizo Plain. These facilities are not located on the Monument, but the issues they raise are universal. Concerns we have about the citing of alternative energy plants in remote areas included:

- Lack of nearby resources and labor for the construction of the facilities – the impacts of massive construction projects in remote areas can have very detrimental effects on the habitat and local communities. This is evident when looking at the numerous proposed solar facilities being proposed in the Carrizo Plain near the Monument.
- Alternative energy facilities should be located within the communities they serve to promote local control of energy needs.
- Local community choice minimizes impacts to large interconnected electrical grids. Facilities being proposed in the Carrizo Plain will feed power lines that will ship the power to the San Joaquin Valley. Completion of the projects are likely to require the upgrade and expansion of 2 substations.
- Of special concern to us are the impacts to sensitive desert lands like the Carrizo National Monument. Deserts are very slow to repair from assaults on the environment.
- Potentials for increased efficiency for facilities located in desert areas need to be thoroughly assessed and judged in relation to all economic factors and the non economic factors. ~~For the solar steam generating facility proposed by Ausra in the Carrizo Plain, the increased efficiency is estimated at 10-15%. What is the true cost benefit of the extra efficiency compared to locating the some kind of solar plants on industrial rooftops in the San Joaquin area. Sensitive lands needs to be protected. These lands should not be thought of as potential industrial sites. Large scale development is incompatible and inappropriate.~~ *Small scale*

I am attaching a short article from the IEEE Spectrum. It provides a cautionary example of the need to look at the whole picture – local, regional and beyond. *Assess the need, Assess the impact.*

Thank you,

Susan Harvey
July 9, 2008

*Tax credits - decommissioning of plants
How ~~long~~ long does approved permit last if plant
is not built?*

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Unanticipated power flows could overload lines ranging from the Czech Republic to the Netherlands

update

Can Wind Energy Continue Double-Digit Growth?

The need for backup power has been overstated, but grid interconnections are crucial

WIND POWER supplies a large proportion of the electricity in countries like Denmark, Germany, and Spain, and its use is growing at an explosive pace around the world. Government incentives and the high cost of fossil fuels have combined to make wind farms a good investment for power-generation companies. But that investment comes at a price: the potentially expensive systems needed to make transmission grids run reliably, regardless of wind's famous fickleness. The question is, how much does that cost? To date, power grid studies have produced widely divergent estimates. Conclusions differ, for instance, about how much reserve generating capacity must be built to keep the lights on when the wind dies down. The uncertainties are a big problem for policy-makers, because such grid-related costs will ultimately determine how much wind power is too much.

The International Energy Agency (IEA) in Paris created a research team to do a meta-analysis of 19 national or regional wind and grid

studies, under the direction of Hannele Holttinen, a senior research scientist at the Technical Research Center of Finland, in Espoo. The first draft of that analysis, issued in November, found that in some cases for every 100 megawatts of wind power, you need 100 MW of fossil, nuclear, or hydroelectric as a backup. But in general, the analysis argues, reserves can be much lower where there's ready access to a large electricity grid. Much depends, therefore, on the size of the region studied.

The IEA found that the larger the area examined, the greater the number of power plants available to fill the gap when the wind wanes. Mainly as a result of this issue, projections of how much it would cost to add needed reserve capacity differ by a factor of 10 or more—swinging from an extra €0.50 to €4 (about US \$0.74 to \$5.88) per megawatt-hour in regions that use 20 percent wind power.

Holttinen's team found that those models yielding the highest costs tend to ignore the modeled grid's interconnections with neighboring



WIND NOT WANING: Wind power's rapid growth, especially in Europe, is sustainable only if grid interconnections improve. PHOTO: ACCIONA

grids—an oversimplification that exaggerates the variability caused by wind farms and thus the cost of reserve power to balance it out, Holttinen believes. Whether those interconnections are up to the task of stabilizing wind-tossed electric grids is a real question.

Wind-farm installation in Europe grew an estimated 38 percent last year, up from 19 percent in 2006, bringing the total capacity to about 67 gigawatts (roughly the equivalent of 20 to 25 standard-size nuclear power plants). At those rates, European grid operators report, windmill construction is outstripping growth in transmission capacity. The result is that in wind-farm-rich countries such as Germany and Denmark, high winds cause large and unan-

anticipated power flows that saturate the grids of neighboring nations. In recent years this has forced grid operators to curtail scheduled transfers of power between grids. In 2008, the grid operators warn, the unanticipated power flows could overload lines anywhere from the Czech Republic to the Netherlands.

Europe's grid operators bet they can prevent most of the wind-related overloads by adjusting their control schemes and further limiting power trades, while a pair of new 380-kilovolt transmission lines in northeastern Germany expected on line in 2009 will prevent the rest. Until then, operators say they might be forced to shut down some wind farms when the wind blows strong. —PETER FAIRLEY