Case Studies: Overlay Zones for Renewable Energy and Transmission Line Development
Brief Sheet

The essentials

- Overlay zoning can ease policy issues facing renewable energy generation development and transmission line development, including issues such as: 1. The time required for the permitting process; 2. The conundrum of transmission line development that is critical to renewable energy development in isolated areas.
- Gila Bend, Arizona has promoted its burgeoning solar industry through Solar Field Overlay Zones (SFOZs). Other parts of the country have implemented similar overlay zoning plans to ease renewable energy development permitting processes. Imperial County, CA and Klickitat County, WA have successfully implemented this zoning strategy to encourage geothermal power plants and wind energy power plants, respectively.
- SFOZs operate as a placeholder for both distributed generation and utility-scale solar generation projects while also decreasing the permitting process timeline from as much as one year to as little as four weeks.
- In Texas, there was little to no transmission line capacity for optimal wind energy project sites. In 2005 they began planning Competitive Renewable Energy Zones (CREZs) to address encourage transmission line development.
- CREZs have led to the development of transmission line capacity for 6,000 MW of wind energy, with 18,500 MW planned, throughout the state of Texas.

Policy details

By implementing overlay zoning (such as the Solar Field Overlay Zones in Gila Bend, AZ) zoning officials approve the use of that land, in advance, for renewable energy generation and transmission line development while keeping existing zoning laws for the parcel intact. Renewable energy developers thereby avoid the time-consuming process of land use change, rezoning and approved entitlement amendments on parcels pre-approved for development through these overlay zones. Additionally, renewable energy overlay zones reduce the uncertainty inherent in a lengthy zoning change process.
The diagram above demonstrates a Source Water Protection Overlay Zone, but it is instructive to understand the basic concept of SFOZs and CREZs as well.

**Case specifics: Gila Bend, Arizona**

Since the implementation of the SFOZs, the Paloma Solar Plant and the Cotton Center Solar plant have been built and are currently providing 17 MW each to the grid. Two more plants have submitted applications. There are 10-15 more plants in the Gila Bend area working on applications.

Industry in Gila Bend was previously dominated by agriculture. The size and openness of the former alfalfa and cotton fields are particularly well-suited for utility-scale solar developments. Additionally, Gila Bend has unoccupied transmission capacity in some areas, allowing some solar generators to quickly and easily interconnect.

**Case specifics: Texas**

Many areas of the country do not have existing transmission capacity, and therefore face the “if they build it, will they come” conundrum: renewable energy developers are reluctant to build without assured access to transmission lines, and transmission line builders are reluctant to build without assurances that energy will be produced near the transmission lines. Texas identified the cause of this conundrum as the lengthy zoning process for transmission line proposals in contrast with the relatively short permitting process for wind energy projects, which constitute the majority of renewable energy projects in Texas. By implementing competitive renewable energy zoning (CREZ) for transmission lines
before a proposal is submitted, transmission line projects go through an expedited process that more closely aligns with the wind energy project timelines.

Texas is scheduled to complete the last CREZ project by December 2013. More than 3,000 miles of transmission lines will transport 18,500 MW of wind energy from mostly remote areas of Texas to the more populous areas.

**Read more**

*Gila Bend, AZ*  
http://www.gilabendaz.org/CommunityDevServices.html  
http://energy.gov/articles/could-gila-bend-arizona-become-solar-capital-world

*Texas*  
http://www.texascrezprojects.com/  
http://www.windcoalition.org/policy/transmission

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