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WIND DEVELOPMENT POLICIES

Creating New Markets

Many experts and developers agree that the critical factor in successfully developing renewable energy in a state is the creation of a market. Whereas other policies act to stimulate production, decrease relative costs, or reflect environmental costs of fossil fuels, none act specifically to guarantee a market. By guaranteeing markets, the uncertainty associated with renewable energy is reduced, making it a more attractive investment for both producers and investors.

Government Purchases. Government is one of the largest consumers of energy in the marketplace. Government purchases involve setting some percentage of energy that must be obtained from renewable sources. This can be accomplished

via legislative action or executive order. Purchases could be made through green marketing programs, direct contracts with renewable energy generators, or developing on-site facilities. The National Wind Coordinating Committee (NWCC) notes that government purchase of renewable energy is among the most certain ways to guarantee a market. This provides long-term contracts, which promote the stability of income streams to producers, lower the risk of capital investment, and lower interest rates charged to developers. Furthermore, the knowledge that there is an identifiable customer for the energy produced from renewable sources reduces market barriers by drawing attention to the resource.

Renewables Portfolio Standard. Renewables Portfolio Standards (RPS) are a relatively common feature in state utility deregulation bills. Seven states have an RPS. Portfolio standards mandate that retail suppliers will include some fixed percentage of their energy from renewable resources. These suppliers may or may not include municipal and cooperative utilities.

The mechanism by which government agencies can track purchase of renewable resources is tradable credits. The credits, as with emissions caps, are granted to a producer for each unit of renewable energy supplied to the power pool. Retailers purchase credits to meet their set portfolio standards. In order to minimize the burden on the private sector, credits could be capped at some level, with a dedicated source of funds used to compensate for the difference between the market value of the credit and the actual cost of energy production. Care must be taken to set the cap at a high enough level that it would rarely be exceeded, in order to keep the state's financial burden low. Retailers that fall short of the portfolio standard would be charged for each credit shortage, at a rate greater than the market price. This encourages compliance without much oversight. Because renewable resources are limited, the percentage may start low and increase gradually over time to some long-term target level. Texas offers a good example.

Texas implemented an RPS of 2,000 MW of new renewable energy facilities by 2009 as part of its utility deregulation. By end of 2001, the state was nearly halfway toward meeting that target. According to the American Wind Energy Association (AWEA): "The minimum renewable energy requirement adopted by Texas under Governor Bush is the most effective policy any state has recently adopted to promote renewable energy." AWEA attributes the success of the Texas

RPS to a requirement sufficiently high to trigger market growth, universal application to all electricity providers, tradable energy credits, and penalties for non-compliance.

Consumption Tax Credits. Consumption tax credits were considered during deliberations of Senate Bill 440 during the 2001 legislative session, but were not included in the end. Consumption tax credits provide incentives for individuals to choose green energy. Those who purchase energy through mechanisms such as green energy pricing or choosing a specific renewable energy provider, would receive a tax credit for some portion of the amount of energy they consumed. This effectively lowers the individual's cost of purchasing renewable energy, thus making it more competitive – or even cheaper – than fossil fuels. Consumption tax credits are best suited for a deregulated market, in which individuals have free choice of electricity providers. For purposes of claiming the credits, providers would need to supply individuals with an annual statement of “green energy” use, similar to the way mortgage companies supply an annual statement of interest paid. The amount of energy used would then be listed on the Oklahoma tax form, and a per-kilowatt-hour amount credited (e.g., one would multiply the annual kWh usage by \$0.01 if there were to be a one-cent credit).

Auctioned Contracts. Auctioned Contracts are requests-for-proposals to suppliers for energy from qualifying sources. Winning bids are selected based upon price and other factors, such as an ability to produce energy at certain times of the day or year. The winning producers deliver power to a power pool, which is then sold at market rates to retailers. If a requirement for renewable energy purchases is made, the cost could be higher than market rates. A dedicated funding source is required to compensate for the difference between the prevailing market price for energy and the winning bid price. A Systems Benefits Charge (wire charge) is one possible source of needed funds. A significant drawback to auctioned contracts is the complexity of the bidding process and selection of bid criteria. If structured properly, though, auctioned contracts guarantee a market, reduce market barriers, and are compatible with market competition.

Performance-Based Ratemaking. States have typically employed a cost-return on investment form of ratemaking for regulated utilities. Cost-return is not compatible with a deregulated market, however some forms of ratemaking may still be compatible. Options for performance-based ratemaking include targeted incentive regulation, price caps, and revenue caps. Targeted incentive regulation ties utility profits to specific performance or activities, which may include incentives for purchase of diversified energy resources. Price caps set a ceiling on utility prices, with retailers keeping revenues below the price caps. Revenue caps set a total or per-customer benchmark level, not necessarily tied to the per-kWh energy production level. Any of these types of performance-based ratemaking could be tied to incentives and penalties, including emissions performance indices and renewable energy incentives. Those meeting targets would be rewarded while those failing to meet targets would pay penalties. Performance-based ratemaking is the principal form of regulation in the U.S. telecommunications industry. Diversity targets and penalties for non-compliance would help promote sustainable energy goals.

For more detailed information about policy options, see “Strategies for Supporting Wind Energy”, by Nancy Rader and Ryan Wiser (1999) for the National Wind Coordinating Committee, available on the web at <http://www.nationalwind.org/pubs/strategies/>.