

A Different Kind of “Deal”: Selling Wind as Environmental Compliance

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A DIFFERENT KIND OF “DEAL”: SELLING WIND AS ENVIRONMENTAL COMPLIANCE

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Supplemental Environmental Projects (SEPs), an environmental regulatory mechanism available at both State and Federal levels, show promise as a marketing venue for wind developers. SEPs are an alternative available to defendants who have been assessed penalties for environmental non-compliance, allowing them to offset a significant amount of penalties by investing in environmentally beneficial projects. An industrial violator in Colorado used this option to invest in the wind energy program of a local utility and contributed funds sufficient to purchase an additional turbine for the utility's wind farm.

In 1999, the dollar value of Federal SEPs negotiated by the U.S. Environmental Protection Agency (EPA) totaled \$277 million. In addition, cumulative state enforcement actions may be settled with SEPs. Aside from some compressed natural gas projects, no clean energy projects have been undertaken with the funds.

Environmental regulators are usually not familiar with wind and other renewable energy technologies and do not routinely suggest renewable energy SEPs in the settlement process. Moreover, surveys of regulators reveal that the voluntary nature of SEPs is a factor that often inhibits regulators from suggesting specific projects to defendants.

Wind and other clean energy developers can play a unique role in introducing wind energy projects into the SEP negotiating process. More to the point, wind developers can “capitalize” on the market development potential of the SEP regulatory mechanism.

WHAT ARE SEPS?

Once a violation of environmental law has occurred, the defendant and regulator negotiate the terms of the settlement agreement. Violators must take three actions:

1. Promptly cease the violation(s).
2. To the extent feasible, remediate any harm caused by the violation(s).
3. Pay monetary penalties intended to be punitive; thus, a deterrent to future violations.

Calculating the amount of monetary penalties is complicated, involving a number of formulas. The intent is to ensure that the defendant does not in any way profit from violating environmental standards.

Defendants may voluntarily offset a significant part of the monetary penalty by undertaking a SEP. Under EPA policy, seven categories of projects may qualify as SEPs:

1. Public Health
2. Pollution Prevention (Most energy efficient and renewable energy SEPs are likely to fit this category.)
3. Pollution Reduction
4. Environmental Restoration and Protection
5. Assessments and Audits (for pollution prevention and environmental quality)
6. Environmental Compliance Promotion (training or technical support to other members of the regulated community)
7. Emergency Planning and Preparedness (for environmental events)

A key criterion for acceptability of a project as a SEP is its nexus with (relationship to) the violation. Depending on the regulatory jurisdiction, nexus can be determined in relatively broad or narrow fashion. State regulatory agencies have developed their own SEP policies. Some track EPA policy closely, but others might not.

Arguably, clean energy projects—such as wind—have a well-defined nexus to air quality violations. Some states, like Colorado, permit a “cross-media” SEP settlement—for example, addressing a water quality violation with an air quality project.

A CASE IN POINT: THE COLORADO WIND SEP

During routine inspections, a Denver company was determined to be in violation of air pollution prevention regulations and was assessed a noncompliance penalty of about \$30,000. In addition, the Colorado Department of Public Health and Environment (CDPHE) fined the company a civil penalty of \$395,000. Because the firm cooperated with the State, CDPHE reduced the civil penalty to \$316,000.

To offset this penalty, the company developed a SEP through which it agreed to purchase wind energy premiums from the local electric utility’s wind program for a minimum of five years. The cost of this SEP was \$303,360, or 80% of the civil penalty. This is approximately equivalent to the cost of the premiums of one additional turbine.

The defendant deposited the entire amount of the SEP with the utility company, which placed it in an interest-bearing escrow account. The utility is applying the SEP funds to purchase wind energy premiums on behalf of the violator. If funds remain in the escrow account after the fifth year, the utility will use the balance to continue paying the wind premium on behalf of the violator.



FIGURE 1: THE COLORADO WIND SEP RESULTED IN THE PURCHASE OF GREEN TAGS FROM XCEL'S WINDSOURCE PROGRAM (FROM THE PONNEQUIN WINDFARM) FOR AT LEAST 5 YEARS (SOURCE: NREL/PIX07158).

The National Renewable Energy Laboratory (NREL) and U.S. Department of Energy (DOE) assisted in calculations estimating the environmental benefits of this SEP. Resulting reductions in air emissions have been estimated as follows:

Total NO_x avoided: 97 tons per year
Total SO₂ avoided: 73 tons per year
Total CO₂ avoided: 3,640 tons per year

BENEFITS OF CLEAN ENERGY SEPS

Benefits derived from clean energy SEPs vary, depending on the stakeholder. Each party may have a different perspective. If all perspectives are met, the clean energy SEPs have a multi-party win-win outcome.

The Regulatory Perspective

Clean energy projects—wind in particular—do not generate harmful air emissions. To the extent that they offset fossil-fuel-generated electricity, they result in environmental benefits greater than simply mitigating the violation. Because environmental enforcement officers tend to be strong environmental advocates, they can be expected to be philosophically predisposed to support clean energy SEPs if they understand and have confidence in the broader environmental benefits.

The Violator's Perspective

There are potential internal financial and reporting advantages, as well as potential public relations benefits, to negotiating SEPs instead of paying penalties. Telling shareholders about “investment” in clean energy projects may be preferable to reporting that penalties were paid for environmental violations. In addition, accounting treatments may be applied that could be beneficial to the violator investing in a SEP.

The “Clean Energy” Industry Perspective

Penalty funds used to capitalize SEPs are “found” money. If not for the violation, those funds would not be available for investment in wind or other clean energy projects.

Consequently, any project undertaken with SEP funds does not have to meet standard financial hurdle rates. SEP funds can help reduce the cost of projects that otherwise might be viewed as “borderline” projects by the investment community and assist wind developers in getting projects off the ground.

Clean energy SEPs give environmental regulators experience with the technologies and with calculating their environmental benefits. Once regulators are comfortable with the fact that these technologies result in environmental benefits that can be calculated and used in other regulatory proceedings and arenas, the market can be expected to grow almost exponentially. (For example, states that do not comply with national ambient air quality standards must file State Implementation Plans [SIPs] with the EPA. Once regulators are convinced that the emissions benefits are real, quantifiable, and sustained, clean energy technologies can be part of these plans.)

Many SEPs involve relatively small amounts of money, and most regulators seem to lack the authority to aggregate the monies into larger funding pools. However, smaller SEP funds can be used to capitalize small wind projects, which otherwise would not pass financial hurdle tests, and to purchase “green tags,” used to help subsidize larger projects.

The Clean Energy Advocacy Perspective

SEPs provide an “off-budget” means of capitalizing clean energy projects and moving local markets for these technologies. Energy efficiency and renewable energy are promising options for economic development:

1. Jobs created through these technologies tend to be local, thus boosting local economies; and
2. Whether through increased energy efficiency or distributed renewable energy, monies are retained in local economies rather than exported to pay for imported electricity from central station power plants. Money retained in local economies is recirculated, creating secondary and tertiary economic benefits.

Other public policy goals also are achieved through clean, distributed energy technologies and increased energy efficiency. Prime among them is electric system reliability. Wind and other utility-scale renewable energy technologies allow utilities to diversify their generation portfolios and thus hedge against risk of several kinds (supply interruption, price volatility, etc.). In addition, because wind farms frequently are situated in rural areas, wind development can be a powerful impetus for rural revitalization and economic development.

Homeland security is another important public policy objective. Central station power plants and the massive transmission system are vulnerable both to natural disaster and terrorist attack. Small-scale on-site or distributed renewable energy takes the pressure off the nation’s brittle electricity transmission system, as does energy efficiency.

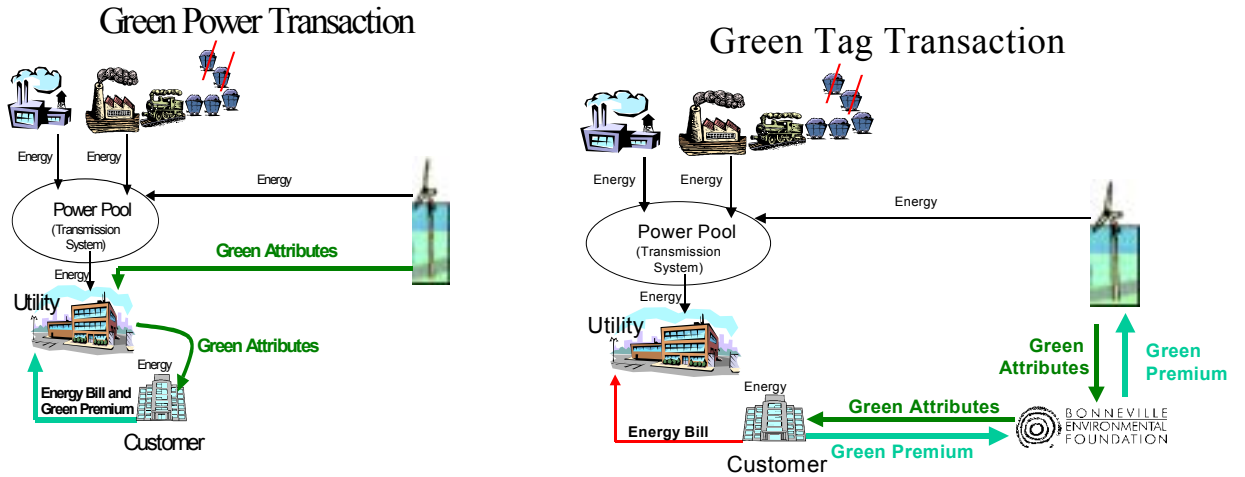


FIGURE 2A & 2B: GREEN TAG CONCEPT: CUSTOMERS MAY PURCHASE GREEN ATTRIBUTES DIRECTLY FROM THEIR UTILITY. ALTERNATIVELY THEY MAY PURCHASE THE ENVIRONMENTAL ATTRIBUTES FROM ELECTRICITY GENERATED FROM RENEWABLE ENERGY TECHNOLOGIES, EVEN IF THE ELECTRONS THEY USE ARE GENERATED FROM NON-RENEWABLE RESOURCES (SOURCE: BEF).



FIGURE 3: A WIND DEVELOPMENT SUPPORTED BY SEP FUNDS MAY RESULT IN THE RETENTION OF MONEY IN LOCAL ECONOMIES AND CAN BE PARTICULARLY HELPFUL IN SUPPORTING RURAL ECONOMIC DEVELOPMENT (SOURCE: NREL/PIX06331).

WHY DON'T WE SEE MORE CLEAN ENERGY SEPS?

To date, the Colorado SEP is the only wind SEP to have been negotiated anywhere in the country, although some violations have been settled with alternative fuel SEPs. Significant (but not insurmountable) challenges inhibit the negotiation of renewable energy SEPs.

The Regulatory Perspective

Enforcement attorneys are expert in the law, but they generally are unfamiliar with clean energy technologies and may not have time to learn. Most important, they do not have confidence in the emissions benefits of these technologies.

Regulators often are reluctant to suggest specific projects (clean energy or otherwise) for fear of appearing to suggest an acceptable course of action and thus undermine the voluntary nature of SEPs.

Regulators must ensure that there is a suitable nexus between the nature of violations (e.g. NO_x emissions) in settlement negotiations and potential clean energy SEP projects. Often, the relationship between the violations and clean energy technologies is not readily apparent.

Defendants sometimes propose inappropriate SEPs. This increases the “hassle factor” for both regulators and defendants.

The dollar amount of penalties suitable for conversion to SEPs is often small, particularly as a result of some or many state enforcement actions. It is unclear to regulators what these funds could purchase in terms of a clean energy SEP, especially if they are unfamiliar with the green tag mechanism.

SEP settlement negotiations can be protracted. Some regulators prefer to assess monetary penalties rather than negotiate SEPs of any kind because of deadlines and the lack of staff and other resources under stressed State government budgets.

Some regulators are philosophically predisposed to punishment as a deterrent to future violations. To the extent that they believe violators might benefit somehow from a SEP, regulators resist that option.

The Defendant's Perspective

Transaction costs associated with negotiating a SEP can be expected to be greater than settling the amount of penalty to be paid. Regulators must approve the project concept, and they can be expected to demand analysis and calculations to support the environmental benefits of the proposed project.

Defendants are not likely to have expertise in clean energy technologies, any more than regulators. Consequently, they are not likely to propose clean energy SEPs. In addition, they probably lack needed in-house expertise to manage such projects.

Defendants often want to settle the violation, put it behind them, and move on with their business.

The Clean Energy Advocacy Perspective

Regulatory processes are complex and are carried out in an atmosphere of confidentiality. Consequently, it is difficult for parties outside the process to understand it, participate in it, or time their input in an effective manner. Many in the advocacy community are not even aware of the SEP mechanism.

In times of budget shortfalls, State government decision-makers may prefer that regulators assess monetary penalties and deposit them in the State treasury, rather than divert this potential revenue source to clean energy projects.

HOW THE CLEAN ENERGY INDUSTRY CAN UNLEASH THE POWER OF SEPS

Wind and other clean energy developers should consider environmental compliance as an innovative marketing strategy. They can initiate contact with regulators in their states and educate them regarding technology costs and emissions benefits. They can provide analytical tools to help calculate costs and estimate environmental benefits, and they can provide other information that might be needed. By providing needed information and analysis, they can increase the comfort level of regulators with these technologies. This could result in more clean energy SEPs and, perhaps, a jump-start for local markets.

Potential defendants also can be educated regarding clean energy technologies and the benefits of negotiating clean energy SEPs rather than paying monetary penalties. Clean energy developers also can learn the needs of potential defendants and identify potential institutional or regulatory barriers that need to be addressed. In this sense, the clean energy industry can play an “honest broker” role between regulators and potential violators—all in the name of growing future domestic markets for these technologies.

A defendant could volunteer to establish a SEP that purchases wind-generated power for its own use. Alternatively, a wind SEP could include buying down the renewable energy cost “premium” for a project that would otherwise be uneconomic to develop. Purchasing or buying down green tags for groups that philosophically support “green” but are unlikely to be able to purchase green tags themselves (such as hospitals or nursing homes, schools or colleges, faith-based organizations, senior citizen centers, or Low-Income Home Energy Assistance Programs) is another potential wind SEP.

SEP funds could also be used to support the development of high-resolution wind resource maps for a state or establish local or statewide anemometer loan programs. If the violator is a generation and transmission provider, the SEP could result in investing in a member co-op’s mini wind farm. A utility defendant could fund a SEP to invest in a professional green energy marketing campaign through a third party (such as the Land and Water Fund of the Rockies).



FIGURE 4: FUNDED THROUGH A SEP, A SCHOOL'S ELECTRICITY NEEDS COULD BE OFFSET BY INSTALLING A WIND TURBINE. THE WIND TURBINE COULD ALSO BE USED AS AN EDUCATIONAL TOOL IN THE SCHOOL'S CURRICULUM (SOURCE: NREL/PIX12333).

CONCLUSION

SEPs and other environmental regulatory mechanisms provide a promising market for clean energy technologies. Significant funds are potentially available every year from State and Federal regulators to capitalize projects. However, past experience shows that the capital market potentially available from SEPs may not be tapped for wind or other renewable energy projects. This is due to system inertia, lack of incentives to proactively create clean energy SEPs, lack of information about clean energy technologies, and lack of nexus between violations and possible clean energy SEP settlements.

This promising market is unlikely to emerge unless those whose businesses stand to profit from clean energy SEPs take a proactive role to jump-start it.

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