ECONOMIC GAIN THROUGH ENVIRONMENTAL INNOVATION

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## Local green tags could spur rural bioenergy projects

COMMENTARY BY CHAD KRUGER



An old, agricultural proverb - "don't eat your seed corn" - can be applied to the need for renewable energy. We've been eating our seed corn far too long, and we need to take a renewed look at mechanisms that might enable us to shake some bad habits.

One such mechanism designed to make renewable energy resources economically competitive with cheaper sources of energy is the "green tag" - or the premium consumers can pay for energy from renewable resources. The theory behind green tags is that conscientious consumers are willing to pay more

to use renewably produced energy that does not pollute. Many states have passed laws requiring utilities to offer green tags to customers.

Growing consumer interest in green tags proves that it can be a successful mechanism for encouraging the development of renewable energy. For example, students at Western Washington University recently voted (nearly 85 percent in favor) to increase their own student fees up to \$19 per quarter to enable the purchase of green power for the university.

In response to growing consumer interest, many utilities are seeking to broaden their energy portfolio to include renewables. While green tags have proven to be an important mechanism for encouraging the development of renewable energy, the benefits of bioenergy are not fully captured by the current green tag mechanism.

Bioenergy projects have many benefits to the community beyond energy generation. For instance, anaerobic digestion (AD) of dairy manure reduces foul odors and associated human health concerns, reduces ground and surface water pollution by facilitating the export of excess nutrients off-farm, and contributes toward maintaining the economic vitality of farms and rural agricultural communities. In fact, many bioenergy projects are implemented primarily as a solution to the environmental problems a farm brings to a local community. Generating renewable energy is a valuable, but secondary, benefit. A local green tag for bioenergy could be a new mechanism which enables farmers to turn the environmental liabilities of modern farming into assets for their community.

Residents of Whatcom County, Wash., have shown concern for the protection of environmental resources, maintaining quality of life, and preserving their local agricultural community. The 150 dairies in Whatcom are struggling to remain economically competitive producing an undifferentiated, bulk commodity: milk. The residents of Whatcom County simply can not drink enough milk or eat enough cheese and butter to provide sufficient incentives for the Whatcom dairies to improve environmental management. However, a local green tag for anaerobic digestion could be a

mechanism by which Whatcom residents could contribute an added value back to the dairies.

According to Whatcom County extension educator Craig McConnell, "by wrapping locally generated green power around the protection of [natural] resources and community values of preserving agriculture, we can capture more value by making our dairies better neighbors."

As often as we hear of neighbors (or ourselves) complaining about the smell of the dairy down the road, we might expect that a neighbor would be willing to pay a few extra dollars each month to eliminate the odor and environmental problems usually associated with dairies. A local green tag could help put many farm-based bioenergy projects over the top. AD is a proven waste-to-energy technology that is marginally economical for dairies in the Pacific Northwest due to our low electrical power rates. Increasing the revenue from AD through a local green tag is a possible mechanism for assuring more dairies will consider AD.

The first step in developing a local green tag for bioenergy is to determine whether it is legal in a given jurisdiction. Special legislative effort on behalf of dairy producers in Washington was necessary to ensure that bioenergy qualified for a green tag, and similar efforts may be necessary in other states.

In addition, there is ambiguity about whether a local green tag itself is legal (would it be considered a local tax subject to state tax codes or citizen voting, etc.?). Lastly, it is conceivable that utilities with significant geographic service areas would not be inclined to provide a differentiated product to each local community it serves and this will ultimately be determined by the willingness of individual communities and neighbors to pay such a premium.

Growth of renewable energy resources is encumbered, in part, by the fact that the structure of the current energy system — including pricing mechanisms — does not fit with the needs of renewables. Energy production and distribution was historically considered a "natural monopoly" — giving rise to the development of large, regional utilities that have resources to invest in a system of massive, capital—intensive energy generation plants and distribution infrastructure and "least—cost" approaches to energy production.

Renewable energy, whether it be solar, wind or bioenergy, often bucks this trend. Small energy producers and communities don't usually have access to the same types of capital that large utilities do. They could benefit from the use of local green tags as a capital pool for the development of distributed, renewable energy generation. For instance, The City of Ashland, Ore., has negotiated with the Bonneville Environmental Foundation to return a percentage of green tags purchased by Ashland residents and businesses to the city for investment in additional sources of renewable energy generation.

Cheap hydropower has limited the need for fossil fuel-based energy in the Pacific Northwest, but it has also been an obstacle to the development of renewable energy. With increased energy demand and social pressure against further hydropower development, we in the Pacific Northwest are faced with the dilemma: either to eat our seed corn or to grow a renewable harvest.

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