The Realities of Renewable Power

There's certainly a buzz in rural circles these days about renewable power. Wind farms, generally built on wide-open spaces or ridge tops; methane gas from livestock waste; or trees, grass, and crop stalks can be shoveled into boilers or converted to other forms of fuel.

Electric co-ops are at the forefront of this new and exciting wave of generation technology, as they currently lead electric utilities in renewable power generation with 11% of co-op power coming from renewable resources, compared to 9% for the industry as a whole.

Cooperatives own and operate about 1,000 MW of renewable projects utilizing biomass, wind, solar, and small-scale hydropower. 750 rural electric systems, including Access Energy Cooperative offer green power to their members.

We are doing everything we can to make renewable power a viable part of our energy mix, but there are very real hurdles to overcome before that 11% can become 15, 20, or 25% in coming years.

For one, construction costs for electricity generation are going up across the board, and renewable sources are no exception. Three years ago it was estimated that a wind farm would cost about $1,000 per kW of capacity—today that has more than doubled. Costs for installation and operation of solar panels can run five times higher than a traditional coal plant of comparable size.

How do we get those costs down? Research and development can help to some extent. Government programs are another solution as the bonds offer electric cooperatives interest-free loans for financing renewable power projects.

Another hurdle involves getting renewable power to where it can be used. Most renewable resources are abundant in rural areas, so they're far from the concentrated power needs of big cities. New transmission lines will need to go in to address this problem, and related costs can add up in a hurry.

A third drawback can cause major headaches for control room operators, charged with matching available power to demand. Most renewable sources are intermittent: the sun doesn't always shine, and the wind doesn't always blow. A fossil fuel-fired power plant, on the other hand, will produce "baseload" power as long as fuel remains available. In the case of a renewable resource like solar, though, an overcast afternoon can leave a gap in available power that needs to be filled.

Improved technology offers one way around this problem making it possible to store excess electricity produced on a sunny day. Cooperatives are constantly making advancements in storage technology, although real breakthroughs have yet to be realized.

Although some policy makers will try to speed up the process of getting renewable power on-line, all of us need to provide an informed, thoughtful approach. Let's be realistic about the value of renewable energy, and be realistic about its associated costs and benefits.

Support for renewable power must be consistent with providing safe, reliable, and efficient service to you, our members. Cooperatives will develop the renewable resources that make the most sense for us, geographically and economically.

Renewable energy will remain a key part of rural development efforts, our nation's energy security, and a valuable asset to consider. But as not-for-profit, consumer-owned electric cooperatives like Access Energy Cooperative, we will encourage elected officials to make sure that public policy doesn't get ahead of available technology, and doesn't impose a hardship on consumers. We will seek a real-world balanced approach that benefits the environment, our rural communities, and you.