Empire District
A Liberty Utilities Company

Local Wind Energy Expansion: A Path to Customer Savings

Question and Answer Guide
November 22, 2017

Does Empire Plan to add more Wind Energy?

Yes. A recent analysis has shown cost savings for customers of $150 - $300 million over a twenty-year period through Empire owned wind energy projects. This equates to nearly $10 per month for the average residential customer over a twenty-year period.

There are still regulatory approvals and other critical factors to work through to move forward, but we are working aggressively to make this exciting opportunity a reality.

How Much?

The savings noted above are based on the addition of 800 Megawatts of strategically located wind generation.

Where?

Up to 500 Megawatts of that could be generated here in Southwest Missouri, keeping the economic benefits right here at home. The two potential local sites are in rural areas of Barton, Jasper, Dade and Lawrence counties.

Why wind?

It's cheaper and would provide cost-savings for customers. Advances in wind turbine technology have improved energy output and lowered costs; the cost of fuel (like coal) used for energy production has increased, and tax credits for wind energy lower the cost of wind even further.

What is the timeline?

Due to the expiration of the full tax credits, the target is to have the wind additions completed by the end of the year 2020. To meet this deadline, preliminary steps have been taken:

- Secure land leases (about 50,000 acres to date)
- Interconnect request filed with Southwest Power Pool
- Preparing an RFP for development; responses due by EOY 2017

What are the next steps?

The study findings and a request for approval was filed with various state regulators on October 31, 2017. This filing outlines a cost-savings plan for customers. We will work with regulators and other interested parties to demonstrate the merits of the plan. We expect approval by Summer 2018.

Will power remain reliable with increasing reliance on wind energy?

Yes. When the wind isn't blowing, an efficient fleet of natural gas generation is in place to keep the energy flowing. The Riverton 12 Combined Cycle unit added in 2016, and our other quick-start natural gas units, pair very well with the variability of wind. Our joint ownership projects and hydro-electric facility provide additional reliability and flexibility within our generation fleet.

Who will benefit from this project?

Customers will benefit from the savings mentioned above. In addition, local tax jurisdictions will benefit, and landowners will receive payment for the use of their land, much of which will remain available for existing uses like farming and livestock production.

What other economic benefits will this project offer?

- An environmental highlight for the region
- Provides economic stimulus during construction
- Attractive career field for ongoing operation

Will this project replace the Asbury Power Plant?

Yes, based on the economics, this plan proposes to replace the energy generated at Asbury. One key cost factor is the requirement for a new coal ash landfill and bottom ash conversion by April 2019. This, and other known and unknown required investments in the years ahead at Asbury, along with ongoing operational and fuel costs relative to the lower costs of wind generation today are some of cost factors.

Are there other reasons driving the timing for this project?

- About $25M in environmental upgrades required at the Asbury Power Plant by April 2019
- Ongoing high costs to operate and maintain Asbury Power Plant relative to the decreasing cost of wind generation.

What will happen to the employees at Asbury?

All Asbury employees will be afforded other job opportunities within the company no later than six months after the cessation of operation of the plant. In addition, the company will provide training opportunities to enhance or broaden skill sets.

As we work with employees to assist in the transition, we also recognize the importance of providing savings to our customers by adapting to rapidly changing market forces.

What is the timeframe for retirement?

The anticipated date is April 2019.

If the project hasn't been approved yet, why are you securing land lease options?

Initial analysis shows that a wind development project in our region makes sense, both economically and environmentally. A certain amount of land under lease is necessary before filing for a large generator interconnection study with the Southwest Power Pool, a long-lead time item in the project development process.

Are transmission system constraints a concern for wind energy delivery?

There are currently significant west-to-east constraints within the transmission system that could impede the cost-effective delivery of energy from areas to the west of our region to the Empire service territory. Projects in or near our service territory are targeted to mitigate these constraints and to keep the economic benefits of development in our region.

Will new transmission lines be required?

The locations of the local sites provide favorable transmission access. However, any upgrades to the system will be determined as part of an overall SPP study.

Is this project the result of the acquisition by Algonquin/Liberty Utilities?

No. The Integrated Resource Plan prepared and filed by Empire prior to the acquisition considered the addition of low-cost wind in the near term. This is an example of how we regularly evaluate opportunities to improve efficiency and proactively respond to market and technology changes.

This new proposed plan allows us to take greater control of our own future. Rather than maintaining the status quo, we see an opportunity to chart a course that maintains our commitment to reliability and affordability through a diverse energy mix that is both cost effective and sustainable.

Will the recent change in direction by the Trump Administration and the EPA impact this project?

No. Even if coal regulations are eased, the economics of wind energy are still favorable.

Do wind turbines create significant noise?

At a distance of 328 yards, wind turbine noise registered at about 40 decibels. This falls between the decibel level of a soft whisper and normal conversation. (Typical setbacks are 1000 feet).

Do wind turbines pose a danger to local bird populations?

We have begun environmental studies to ensure wildlife and natural habitats are protected. We will work to address any concerns and use best practices to have the least impact on the environment.

What about other environmental concerns?

Protection of the environment, natural habitat and wildlife is extremely important. The project will be developed in accordance with the EPA Voluntary Wind Energy Siting Guidelines and industry best practices. We are also consulting with the Missouri Department of Conservation to ensure the protection of public lands and wildlife.

What about construction issues like roads, drainage, erosion and sedimentation control?

We will work with county planning and zoning officials to develop a mutually agreeable plan to address these concerns.