

Influencing Vectren's energy portfolio toward more renewables and less fossil fuels is an important step in improving the health and future electric rates of the Evansville Community.

The front page of the Evansville Courier & Press ran an important article on September 29, 2016. It was an abridged version of the report that resulted from a nine-month investigation that found Evansville to be at the center of the highest concentration of industrial pollution in the United States. Alarming for Evansville residents was a subtitle that read, "Living and Dying in Evansville". The Center for Public Integrity, USA Today, and the Weather Channel collaborated on the report. The report and an accompanying video can be found at superpolluters.com. Not Vectren, the mayor, nor any city official has made a public statement regarding the national report. They haven't submitted any plans to reduce our overload of industrial pollution. It appears that it is up to the residents to push for change. One change we can push for is to have Vectren transition to more renewable energy and away from fossil fuels.

The largest contributors to our industrial pollution are coal plants. In Evansville 97% of our electricity is generated by five coal-fired power plants that are between 30 and 50 years old. One of those plants, Culley Unit 2, operated at just a 9% capacity factor in 2015 according to SNL Energy data. This year Culley 3 had a coal silo collapse causing it to be down 4-5 weeks. Ratepayers are paying high Overhead and Maintenance (O&M) on these aging and underutilized plants.

Every two years utilities complete a report called an Integrated Resource Plan (IRP) during which time utility stakeholders (customers) can view and comment on the planning of generating facilities to meet projected customer demand. The IRP process grew from the 1970s when nuclear power plants ran up huge cost overruns, and then it was discovered that the extra generating capacity was not even needed to meet demand. The O&M costs for each Vectren coal plant was included in its 2011 IRP, but were kept from the public and submitted only to regulators in its 2013 IRP. It is reasonable to suspect that O&M far exceeds other US generating facilities. We pay the highest electric rate in the state for electricity. And for our high electric rates we also get industrial pollution causing high illness rates. Where our electricity is 97% coal, the average in the US is 33% coal.

Vectren is in the process of completing its 2016 IRP and here are the key points that stakeholders need to know.

- Vectren must not continue to maintain excess capacity. Generation plants must match projected usage plus a small overage required by law. National trends indicate that even as populations increase, electricity usage is down due to the greater efficiency of appliances and homes. Evansville is no different. In addition, a large industrial user, SABIC will soon be generating much of its own electricity with its new cogen plant. One or more of the oldest coal plants must be retired. Culley Unit 2 is obviously in need of immediate retirement in light of its underutilization.
- Vectren must not spend good money after bad. If the plants are not retired, Vectren proposes spending an additional \$240 million dollars on pollution controls that will be passed on to ratepayers. Such investment in the old plants will further delay our transition to renewables, which is where we need to go to stabilize our electric bills and improve our community's health.

- Vectren must build up renewables now, so as to be able to retire more coal plants in the future. Vectren can operate with up to 30% renewables without storage or significant changes to the grid. We need to quickly ramp up to 30%.
 - Currently Vectren has an 80 MW contract with wind farms in Benton County IN that meet about 3% of our electricity needs. Wind is the cheapest electricity currently available, and Vectren needs more of it in its generation portfolio. According to the U.S. Department of Energy (DOE) Wind Technologies Market Report, the average Power Purchase Agreement (PPA) price in the central U.S. was only \$22.40/MWh in 2014.
 - Vectren is the only investor owned utility in Indiana that does not have any solar in its generation portfolio. Vectren presented numbers in its July 22, 2016 IRP meeting for solar that were four times the cost cited for utility solar in the Lazard's Unsubsidized Levelized Cost of Energy Analysis – Version 9.0. Lazard's reported that Utility Solar ranged from \$43 to \$70 per MWh, whereas Vectren's levelized numbers were from \$190 - \$210 per MWh. It's no wonder that when the Vectren's model is run with their costs for utility solar, it comes out as too expensive an option.
 - For comparison, the Lazard's cost for coal plants is \$65 - \$150 per MWh. With the age of our plants, the \$150 per MWh seems likely. Clearly renewables will eventually lead to lower electric bills once the coal plants are history.
- Vectren must not replace fossil fuels with fossil fuels. Although gas plants would reduce some of our local industrial pollution, there is too much uncertainty to invest in new gas plants. Fracking releases methane, which will likely be subject to more regulation in the future. Fracking has also been shown to be a threat to ground water. These issues will subject natural gas to pricing uncertainties that rate payers just don't need. It would be a repeat of the issues we've had with coal.
- Vectren must expand effective efficiency programs for low-income customers.
- Vectren must increase Demand Side Management programs with customers to manage peak demand.

Our city leaders are not publically supporting action to save us from being at the center of the highest concentration of superpolluters in the United States. Vectren will not make any of the changes advocated here without pressure. The 2013 IRP modeling indicated that they should close Culley 2, they didn't. The 2013 IRP concluded no coal plant retirements or additional renewables for the next 20 years. We can't let them do that to us again. Please attend their next and final IRP meeting. The date has not yet been announced, but you can contact them to request the date when known at irp@vectren.com.

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