Subject: Crocker Wind Farm

Not a big fan of wind farm because of the view out my front door and because I think it will eventually affect waterfowl migration and hurt the excellent hunting that we have in northern Clark County.

I do not begrudge farmers or others in the community who want the project. Farmers are hard working people and pretty good at adapting to conditions---from growing flax to corn to potatoes to sunflowers to organics, etc. However changing the type of crops grown does not affect anyone else. If the wind farm does not work our---it would leave behind a scarred landscape.

I think everyone should be concerned or at least consider the long term effects of the project. It would not be good for anyone to have a partially constructed or ghost wind farm.

Most everyone has traveled on the interstate between Watertown and Brookings---and obviously noticed the wind towers to the east about half way between Watertown and Brookings.
This is the Buffalo Ridge I & II Wind Power Project.
--- Consists of 129 wind towers on 15,000 acres and has an output of 250 mega-watts. The towers are about 15 miles from the interstate and are very visible. Crocker Wind Farm will be much closer than this to many homes---not a view I want.

However many people do not know that 5 miles north of Brookings and 10 miles east of the interstate (closer than the wind towers) is the Deer Creek Natural Gas Fired Power Plant built in 2012.
----this plant runs on natural gas (is clean power), occupies 50 acres, and produces over 324 mega-watts of power.
This gas fired power plant is less expensive to build and operate than comparable wind power, occupies a much smaller foot print, is less conspicuous, and can be a stand alone power source. It is not intermittent as wind power is. Most new power plants are gas fired.

Why do they build wind power farms?
It is because of regulations, mandates, and subsidies—but these will not last and I would be concerned about any industry that exists because of mandates and subsidies.
Production tax credit is expiring.

PTC----2.3 cents per KW H
Construction started in 2017—PTC is reduced by 20%---1.8 cents
Construction started in 2018—PTC is reduced by 40%---1.4 cents
Construction started in 2019—PTC is reduced by 60%---.92 cents
Duration is 10 years

That's one reason to be concerned about long term prospects of wind. Never good to come late to the party.

Politicians have a major affect on regulations, mandates, and subsidies—and that is never consistent. The last administration was big on pushing clean, renewable energy and wind power grew in the past 8 years because of regulations, mandates and subsidies---but the new administration is much more friendly to petroleum and coal industries.
An example of how politicians affect what will happen in the power business.

Clean Power Plan

--- June of 2014 (past administration) EPA released draft
---WV promptly sued the EPA—18 states, including SD joined
--- December 1, 2014 SD PUC issued 40 page comment paper regarding the issue
---- Aug. 3, 2015 EPA released the Clean Power Plan on
----February 11, 2016 SD House passed Concurrent Resolution 1005 urging the Federal Government to refrain from enacting the regulation
-----March 28, 2017 President Trump signed executive order directing EPA to review CPP and established a process to repeal or revise the rule.
----March 30, 2017 EPA administrator Scott Pruitt sent letter to governors advising them they do not have to adhere to CPP

This issue indicates--changes with the new Admin.

The PUC comments were a 40 page document that covered quite few issues, but a **few things stood out to me:**
A major objection to the plan was in regards to the **restriction or possible elimination of coal**—and it was pointed out how important coal was to SD and that new technology has allowed the BSP to reduce emissions. BSP is a 475 MW coal fired power plant.
Comments also pointed out that SD has a 324 MW gas fired power plant (DCP) that was recently built and that 50% of the power is hydro power from dams.

The PUC comments also stated "**approximately 24% of generation production in SD came from wind energy in 2012". "Given the already high penetration of wind generation in the state integrating additional intermittent wind resources will be more difficult than in states with lower penetration---and the SD renewable target should be reduced because of the already high levels of wind penetration.**

Went through many different cost situations

Conclusion: EPA's proposed rules are poorly written and will result in higher costs to South Dakota consumers.

These comment paper leads me to believe that in 2014 SD must have considered their coal generation to be the less expensive and more important than wind (and obviously more reliable because this comment paper repeatedly referred to the fact that the wind power was intermittent).

Recently I have read another study by the US Energy Information Agency that appears to coincide with the PUC comments.
Their studies show that once intermittent energy reaches a certain penetration level, the costs go up.

This study also indicated that the cost of network upgrades, integration, and transmission become significant as renewables penetration increases.

In Conclusion

---Wind Energy Subsidies Decrease by at least 40% for this Project (and expire in 10 years).
---According to PUC comments, Wind Penetration already high and CCP plan (more renewables would increase consumer costs).
---Wind is an intermittent power source.
---A new administration that states that they want to bring back coal and oil and are not fans of renewable energy.
- Trump says he will bring back coal. What with this do to wind?

Makes me question the long term viability of the project and should be something that is considered.

Gale Paulson