


# Demand Response

North Boone CUSD 200

Board of Education

December 2019

A watercolor illustration of a wind farm. In the foreground, a large wind turbine is depicted with blue and purple hues. The background shows a series of smaller turbines receding into the distance under a vibrant sunset sky with orange, yellow, and pink tones. The overall style is artistic and painterly.

*“ It’s a no-cost, best efforts reduction program that asks participating sites, such as schools, to reduce power during unusually high peak times on the grid.*





# Program Partners

PJM (grid operator and responsible for revenue for project)

Program run by

\*NRG Curtailment Solutions, Inc.

\*Direct Energy Business

A watercolor illustration on the left side of the slide. It depicts a pair of hands, rendered in warm, earthy tones of brown and orange, cupping a mound of dark, rich soil. From the center of the soil, a small green seedling with two leaves and a thin stem grows upwards. The background around the hands and soil is a soft, abstract wash of light green and blue, suggesting a natural, outdoor setting. The overall style is artistic and evocative, symbolizing growth, care, and investment.

# Funding

PJM is the funding source for this initiative.

PJM is a regional transmission organization that coordinates the movement of wholesale electricity in all or parts of Delaware, Illinois, Indiana, Kentucky, Maryland, Michigan, New Jersey, North Carolina, Ohio, Pennsylvania, Tennessee, Virginia, West Virginia and the District of Columbia.



# Process

1. Track: install meter to monitor and record energy data.
2. Plan: Create a reduction plan with company and North Boone
3. Alert: Company will alert North Boone of a grid crisis or a planned 'test' (30 mins to 2 hours ahead of time)
4. Implement: If possible North Boone would implement reduction plan
5. Measure: The reduction plan performance would be measured against previous baseline.
6. Reward: At the end of the Demand Response season District receives payment.



# Reduction



- Create a plan with company on when and what to reduce
- We would typically be asked to reduce one time a year for about an hour (typically in the summer but could happen in winter)
- Can reduce full, partial or nothing depending on situation
- Generators can be used as a back up but not all are compliant.



# Highlights

- \*No penalties associated with the program
- \*No cost to enroll
- \*Reduce power that the District is comfortable and capable
- \*District will have access to dashboard to monitor kw demand
- \*Have a Reduction Action Plan



# Potential Revenue from NRG

70%

(~\$1,500 tp \$6,000)



# Potential Revenue from Direct Energy

75%  
(~\$1,500 tp \$6,000)

A watercolor illustration on the left side of the slide. It features several blue solar panels tilted upwards, set against a background of soft, painterly clouds in shades of blue, white, and grey. The bottom of the illustration shows a patch of green grass. The overall style is artistic and clean.

# Terms

\*5 year contract

\*We get about 70% -75% of the revenue and the company keeps about 25- 30%

\*Even if we cannot reduce power we are still enrolled in the program





# *Questions?*

Next step: Pick and approve provider

-Set up plan for reduction