

## Illinois Power Agency Policy Study Technical Information Requests

August 23, 2023

### A. **Requested Data for Energy Storage Projects Related to SB1587**

While SB1587 proposed to establish energy storage procurement targets, to model the impact of establishing those targets, the Agency seeks information on potential locations for energy storage projects. To the extent that planned projects have the following information, that will aid in our analysis, but the Agency is also interested in proposal for proxy approaches to locating energy storage projects for our modeling.

1. Individual project locations and grid points of interconnection
2. Storage technology (battery energy storage by type of battery and any other storage technologies that may be relevant)
3. Capital costs required to bring each project into commercial operation (total \$)
4. Fixed (\$/kW-year or total annual \$) and variable (\$/MWh or total annual \$) operating costs
5. Construction schedule including construction period (months) and dates for start of construction, completion of construction and commercial operation
6. Project response time (minutes)
7. Round trip efficiency (ratio of energy input to energy output) and expected degradation over the life of the project
8. Anticipated cycle life (number of cycles)
9. Name plate discharge/charge capability (MW)
10. Storage capability (MWh)
11. Duration (hours)
12. Description of any external scheduling constraints that limit scheduling, charging, discharging and timing of constraints (seasonal, monthly, weekly or daily)

### B. **Requested Data for Utility-Scale Offshore Wind Project Proposed in HB 2132**

1. Identify the center of the wind turbine location in terms of latitude and longitude
2. Identify the point of interconnection for the project
3. Proposed injection capacity (MW) into the point of interconnection
4. Describe the transmission technology to be used
  - a. Type of transmission to be used for the export cable (HVAC or HVDC)
  - b. Capacity rating of the export cable (MW)
  - c. Voltage of the export cable (kV)
  - d. Distance from the offshore platform to the point of interconnection (km)

5. Provide specific information identifying the turbine model(s) to be used by the project, the turbine manufacturer(s), and the name plate and net capacity of the turbines in MW
6. Total project name plate and net generating capacity
7. The voltage for the inter-array cables for the wind turbine generators
8. Anticipated hourly generation profile in MWh and average annual capacity factor
9. Planned construction schedule including anticipated construction period in months, dates of start of construction, completion of construction and commercial operation
10. Anticipated daily operating schedule (hours), maximum ramp rate (MW/minute), high wind cutoff (miles per hour), and anticipated annual turbine shutdowns for high wind, icing and other weather conditions
11. Anticipated timing and impact of wind turbine blade replacements (duration of turbine operation shutdown in hours and schedule for replacements over the life of the project)
12. A description of any external operating restrictions established by project permitting requirements and average annual estimated restriction impacts (percent of net generation and hours of restriction) for example noise, bird migration and nesting, fish spawning seasons
13. Location and description of onshore service facilities
14. Capital costs (total \$ or \$/kW) to bring the project into commercial operation including expenditures for permitting
15. Variable (\$/MWh) and fixed (\$/kW) operating and maintenance costs including breakout for number of employees and total salaries
16. Anticipated operations and maintenance schedule with capital and labor costs (total \$) timing (days and calendar schedule) and sources for replacement equipment for planned major overhauls
17. Annual payments local, state, and federal taxes or payments in lieu of taxes
18. Costs to establish site control including annual lease costs if applicable
19. Sources of materials and equipment for construction and operation including costs for materials and equipment sourced in Illinois, outside of Illinois in the U.S., and imported materials and equipment

**C. Requested Data for Renewable Energy Credits from a HVDC Transmission Line**

While the Agency is generally aware of the parameters of the proposed SOO Green line, there are specific data requirements that will be required from the developer of the line for modeling. Electrical locations of the two ends of the HVDC line

1. Point of interconnection of HVDC line
2. Injection amount (MW) into point of interconnection
3. Line parameters
  - a. Resistance
  - b. Inductance
  - c. Capacitance
  - d. Line length

4. Construction schedule including anticipated construction period in months and dates for the start of construction, completion of construction, and commercial operation/in service
5. Capital and operating cost expenditures in Illinois with expenditures for materials and equipment sourced in Illinois, outside of Illinois in the U.S., and imported materials including labor costs during construction
6. Anticipated capacity (MW – Nameplate capacity rating) and deliveries (MWh – Annual production)
7. Anticipated operating life (years)
8. Is the HVDC system monopolar or bipolar?
9. At what voltage level is the power being delivered into the ComEd territory?

**Responses may be marked “Confidential.” The Agency will protect confidential information under Section 1-120 of the IPA Act, and new Section 1-129(e) of the IPA Act, when it takes effect.**