Executive Summary of Findings

Off Grid Technologies and Mercury Wind’s responses address some but not all of the items sought in the City’s RFI. This Executive Summary presents certain highlights of those full submissions. The detailed analysis of the Working Group is submitted along with this summary and should be referred to for a full treatment of the issues. In summary, the responses present the following:

1. Siting: Each response proposes a site 7-9 miles into Lake Michigan, directly out from the Northwestern campus in Evanston as stipulated in the RFP.
2. Size of Wind Farm: The responses envision an area of approximately 1.5 square miles to accommodate the wind farm. Mercury Wind proposes 30-80 turbines, 600 feet in height, depending on the electricity capacity chosen for the project. Off Grid proposes 20 turbines over only 140 acres of the proposed site.
3. Power Capacity: Mercury proposes a capacity of 100-250 Megawatts (MW). Off Grid proposes 200 MW for the initial project.
4. Visual Impact: Very little valuable, factual information was presented on this topic. Mercury proposes painting the turbines blue or grey to reduce visual impact. Off Grid states that their proposed turbines would be low profile and therefore would not have a visual impact. Off Grid’s proposed turbines are not fully described nor currently proven in the field.
5. Wildlife Impact: Essentially, the responses state that these are to be determined. Mercury states that the turbines tend to serve as reefs for the congregation of fish. Each acknowledges that formal studies will be necessary to determine the impact on birds and bats.
6. Impact on Boating/Shipping/Aviation: Mercury states that the turbines would be 2000 feet apart and that barges are a maximum 225 feet wide. Mercury indicates that there will be a 100 foot clearance from the surface of the water to the lowest point of a rotor blade. At seven-plus miles out, interaction with recreational boaters would be infrequent. Emergency equipment will be on the turbines, such as rafts, phones, etc. Aviation likely would not be impacted because the maximum height will be 600 feet above the surface of the water.
7. Dock Facilities for Construction and Maintenance: The project would require a deep water port and staging area for construction. The most likely locations would be Port of Chicago on the south side of the city, or locations in Indiana or Wisconsin.
8. Electric Interconnection: An off shore substation would be required for each 150 MW of capacity. An underwater cable, buried four feet below the lake bed, would run to a connection point on shore an then continue under the streets to the ComEd high voltage substation at Emerson and Dewey. (In fact, interconnection may need to occur at another location rather than Emerson and Dewey.)