

M.V. Ice Arena Wind Tower (DRI 49-M2) – Questions for Applicant

1. Clarify whether the FAA would require lighting. Would this be at the hub or tips of the blades? **An application has been submitted. The FAA will make a determination on the height as well as whether the site needs lighting based on the latitude/longitude, the AMSL [ground level] and proximity to the airport regarding any flight paths. Any required lighting would be fixed on the tower.**
2. Would the applicant be willing to increase planting to screen the tower and arena building along the road, along the ancient way, and from other abutters? **This site has good natural screening in the back and has the arena building to block some of the view. The present curb cut will shift according to the campus plan at which time plantings will be inserted in the space significantly screening the tower from Edgartown Road.**
3. Could the tower be moved not quite so far back, in order to reduce the visual impact on the ancient way and the public open space (Land Bank property)? **The turbine could be moved farther from the line but will increase the visual impact on the YMCA.**
4. Clarify the proposed setbacks compared to the minimum setbacks (from the property lines and existing and potential residences) as typically required in wind turbine regulations – between one and three times the tower height – in order to provide a safety “fall zone”, to reduce the impact of noise, and to reduce visual impact. **Oak Bluffs’ bylaws state that the setback requirement is the height of the structure plus 20 feet. In our case that would require 185 feet which is unattainable on our parcel. We will need to apply for a variance with the Oak Bluffs ZBA. We have submitted a document from the Massachusetts Div. Of Energy Resources which proposes model Zoning Ordinances. In that document it discusses setbacks in section 4.1 and suggests that the criteria be based upon distance to inhabited structures as opposed to property lines. We have sited the tower so in the unlikely event of a collapse, the YMCA is beyond the “fall zone”. The rough plan for any housing to the southeast of the arena has a road running along the common property line. This distance most likely puts any potential housing outside of the “fall zone”. The noise concerns are addressed in the NREL document.**
5. Clarify the size and treatment of the tower as it meets the ground. How would it be enclosed? Is there any need for equipment and/or an enclosure on the ground? **The tower will have three or four legs depending on the engineering. There will be an anticipated loading that will be considered for both the turbine and the cell component of the structure. Once the engineers have computed the maximum loading they will design a tower to accommodate. As far as the ground area the tower will be enclosed in a secured fence area. There will be equipment on the ground but Maxton will offer to pay additional costs to build one equipment building (approximately 20’ X 24’) within which all the carriers will locate their individual**

equipment. This will give the ground area a more uniform look. It will avoid the look of differently sized building and cabinets within the fenced area as you may have seen at other cell locations.

6. Provide more detail about the installation of cell antennae on the tower. What is the necessary clearance above the tree canopy and below the turbine blades and how many carriers could this accommodate? Would there be platforms? What would the installation look like (provide a visualization)? What guidelines would be put in place to ensure that visual clutter is minimized? The advantages of adding the cell phone components should be clearly and carefully explained. The clearance above the tree canopy should be approximately ten feet. The tree canopy is approximately 50 ft. The blade of the turbine comes down to a point of 115 ft. The highest level at which a cell antenna could be affixed to the tower is below the 115ft level [needs to be below the blade as it rotates] so you would most likely have antenna levels at 105', 95', 85' & 75' for the projected four wireless carriers. The antennas are affixed to the tower in what are called arrays. There is a bracket that supports the antenna and gives it a uniform look to harmonize the visual look of the vertical structure. I would ask that you look at the photo-simulation to get an idea of how the antennas will look affixed to the tower. The advantage to adding the cell phone component to this structure is due to the height of the facility. The cell component is based on line of sight and these antennas need to be at a height above the tree canopy. If the cell antennas were not added to this turbine you would need another tall structure on which to locate the antennas. By locating it on this tall structure it removes the need to build something else.

7. Explain what the use and impacts of the cell tower would be. What would the impact be on the provision of cell service by each of the carriers? What are the impacts of noise and other emanations? What physical installations would be needed on the ground? What revenue could this generate for the arena? The use of the cell component will greatly assist the area with their communications. It will also be critical in the event of an emergency at the arena or on the nearby roads as most people will have a cell phone on their person and can immediately call for help. Each carrier who locates on the tower will have improved cell coverage in the area. If they choose to locate on the tower it is due to a need for coverage in the immediate vicinity. This site will have little noise as the air conditioner within the building will need to stabilize the interior temperature and the generator will cycle on and off during a very limited, scheduled time during the week. The physical installations would be that all equipment will be housed within one building that Maxton will construct. This will clean up the base of the structure and create a uniform look that will fit in the area. The revenue can not be quoted as there is not a completed agreement between Maxton and the arena.

What will this structure look like? Please see the attached photo simulation.

Where will the associated equipment be located? Maxton is offering to build one equipment structure at the base of the tower located within a locked, secured fenced

compound. This one building will give the site a uniform look and will not have a number of differently sized equipment sheds at the base of the tower.

How many carriers will go on this tower? Maxton believes four carriers will make use of this tower within the near future.

How far will the signal travel? The signal strength and distance can vary among carriers. It is typical that a site can cover anywhere between 2 – 4 miles depending on topography, coverage objective of each individual carrier, number of users within the tower area and other factors.

What will happen in the future if a tower is no longer needed and the carriers are no longer on the site? This tower will remain operational until such time as the carriers no longer need the site. At the time when it is no longer being used by any of the carriers, it will be removed and the land restored to its prior condition minus reasonable wear and tear.