



## **Soldiers Field Park Garage Wind Turbines Factsheet**

### **Project Development**

HRES completed an internal survey of its properties available for renewable wind projects, encompassing the following factors:

1. roof deck height
2. roof orientation to prevailing winds
3. roof ability to support mid-size turbines (10kW)

The Soldiers Field Park Garage scored well on all basic parameters, and several months of wind monitoring on-site indicated the enough wind existed to proceed.

### **Energy Production**

All energy produced by the turbines will be used at the parking garage. We anticipate production in the amount of 20,000 kWh of supplementary power each year from the pair of turbines. This will account for approximately 5 – 10% of the total annual energy needs of the garage.

### **Turbine Type, Size, Location**

- Two Bergey Excel turbines, made by Bergey Windpower Co.
- Each rated at 10 kW capacity
- 30 year lifespan
- Three blades, each 11.5 feet long, for a total “wingspan” (rotor diameter) of 23 feet
- Large “tail” (vane) allows 360 degree rotation to hunt the wind
- Mounted on a 40 foot pole on the top deck of a 7 story parking garage.
- The spacing of the two turbines made the best use of the wind resources on site.

### **Campus/Community Partners**

The turbines are located on top of a garage that is co-owned by HRES and UOS Parking Services. Both entities cooperated in project development. Approval for the project was granted after review by the City of Boston.

### **State Funding**

The project qualifies for funding from the Massachusetts Technology Collaborative’s Renewable Energy Trust, specifically under the Commonwealth Wind Incentive Program – Micro Wind. The project has been approved for an initial rebate of \$13,500 disbursable upon project completion. A performance incentive will be disbursed after a year of production.