City of Milwaukee

City of Milwaukee: Wind Turbine Project

Matt Howard, Environmental Sustainability Director

Project Best Practices

- Transparency and information
- Find the most appropriate site – both wind profile and building load
- Stay away from neighborhoods and iconic civic sites
- No surprises for locally elected officials
- Active public engagement
- Know the facts; kill the myths; control the narrative
- Tie to local economic development
- Cost-benefit analysis, budgeting, payback, over and over and over…

Project Basics

- Proposal to site ONE, small-scale wind turbine on City-owned building on Port Authority property
- 2323 S. Lincoln Memorial Dr., Port Administration Building
- Turbine will power ALL of Port Admin. Bldg's needs
- Best estimate of total cost of installation/operation: $550,000-$600,000
  - Federal grant for renewable energy: $400,000
  - We Energies and Focus on Energy grants: $200,000
- City will incur NO debt, nor financing – turbine will be paid for on day 1
- Mayor & OES believes this a smart, viable demonstration of the City's commitment to renewable energy

Project Site Map

Project Site Details

Port Administration Building

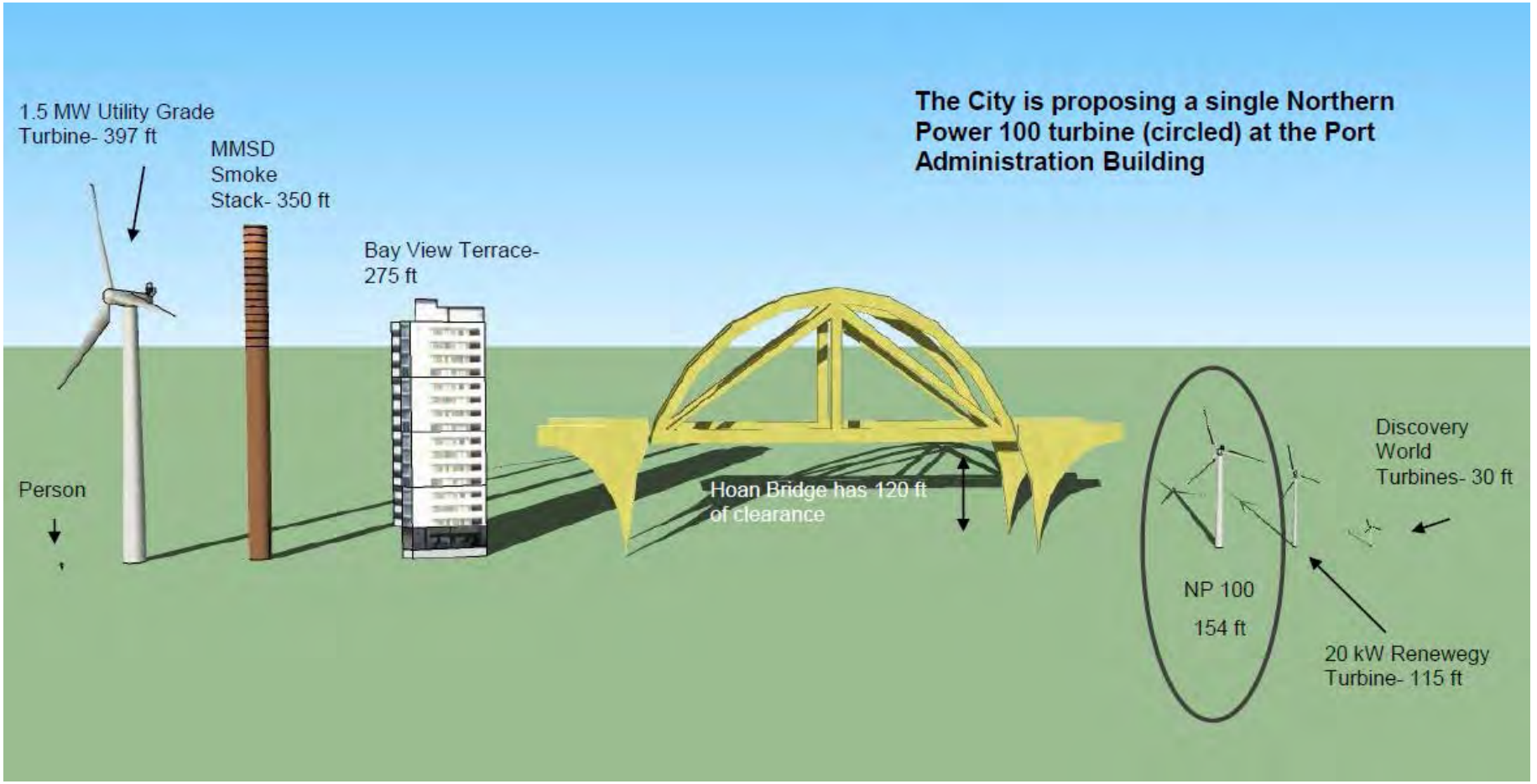
2323 S. Lincoln Memorial Drive

- 2010 Electricity Use: 100,240 kWh
- 2010 Electricity bill: $12,351
- GHG Emissions: 76 metric tons of CO2 from electricity
- 2011 Projected Bill (w/o turbine): $13,067

Wind Turbine Basics

- 100 kW Wind Turbine
- Tower: 120 ft; To tip of blade: 154 ft.
- Est. Annual Production: 109,000 to 152,000 kWh
- % of Port Admin. Bldg Electricity: 109%-152%
- Est. Annual Savings to City: $14,000 to $20,000 (at 2011 rates, revenue included)

Wind Turbine Comparison



Wind Turbine Photos

Ft. Atkinson – MATC Site – MREA March 19 Workshop

Wind Turbine Rendering

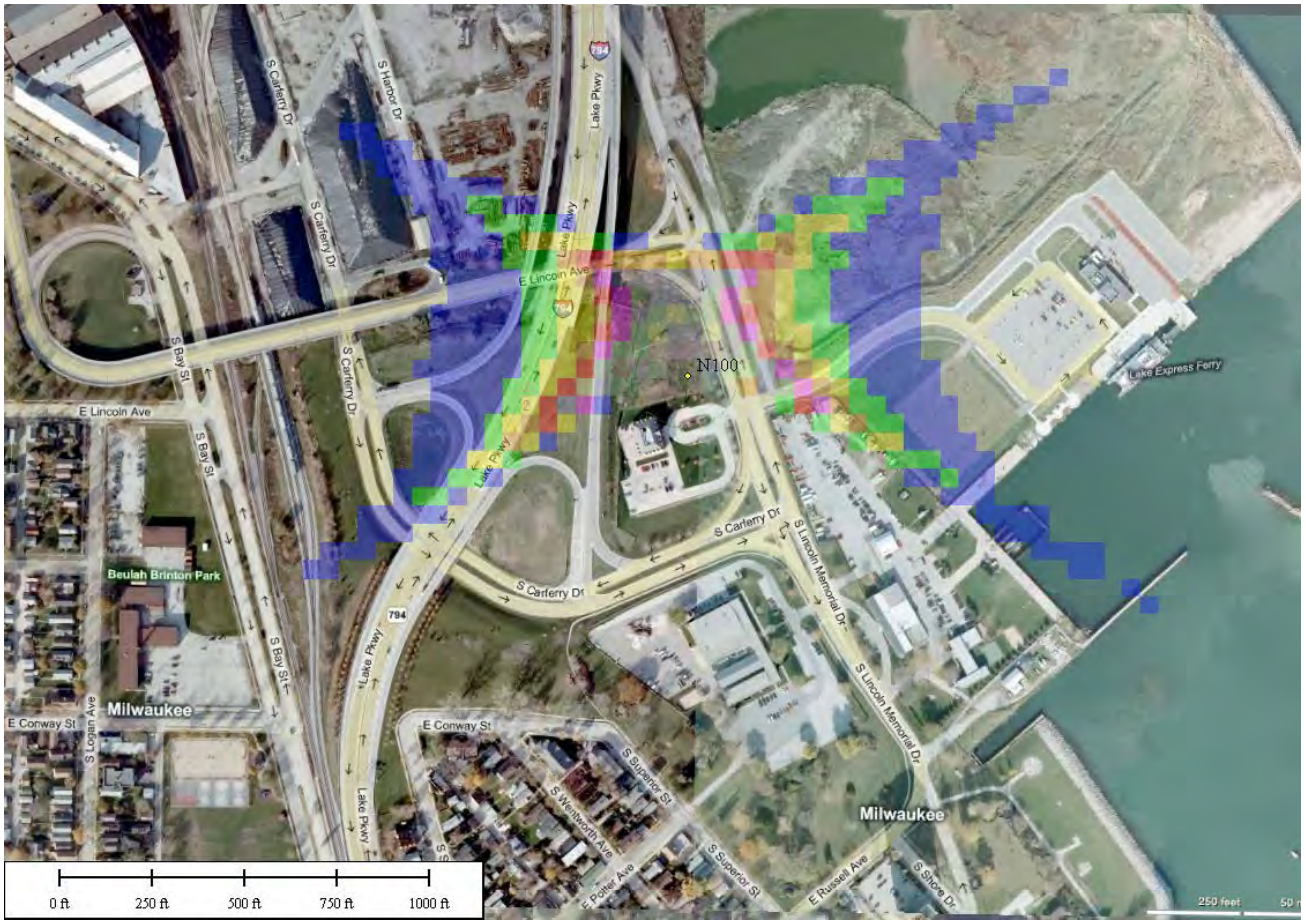
View from S. Shore Park

No turbine in City Skyline view

View from Veterans Park

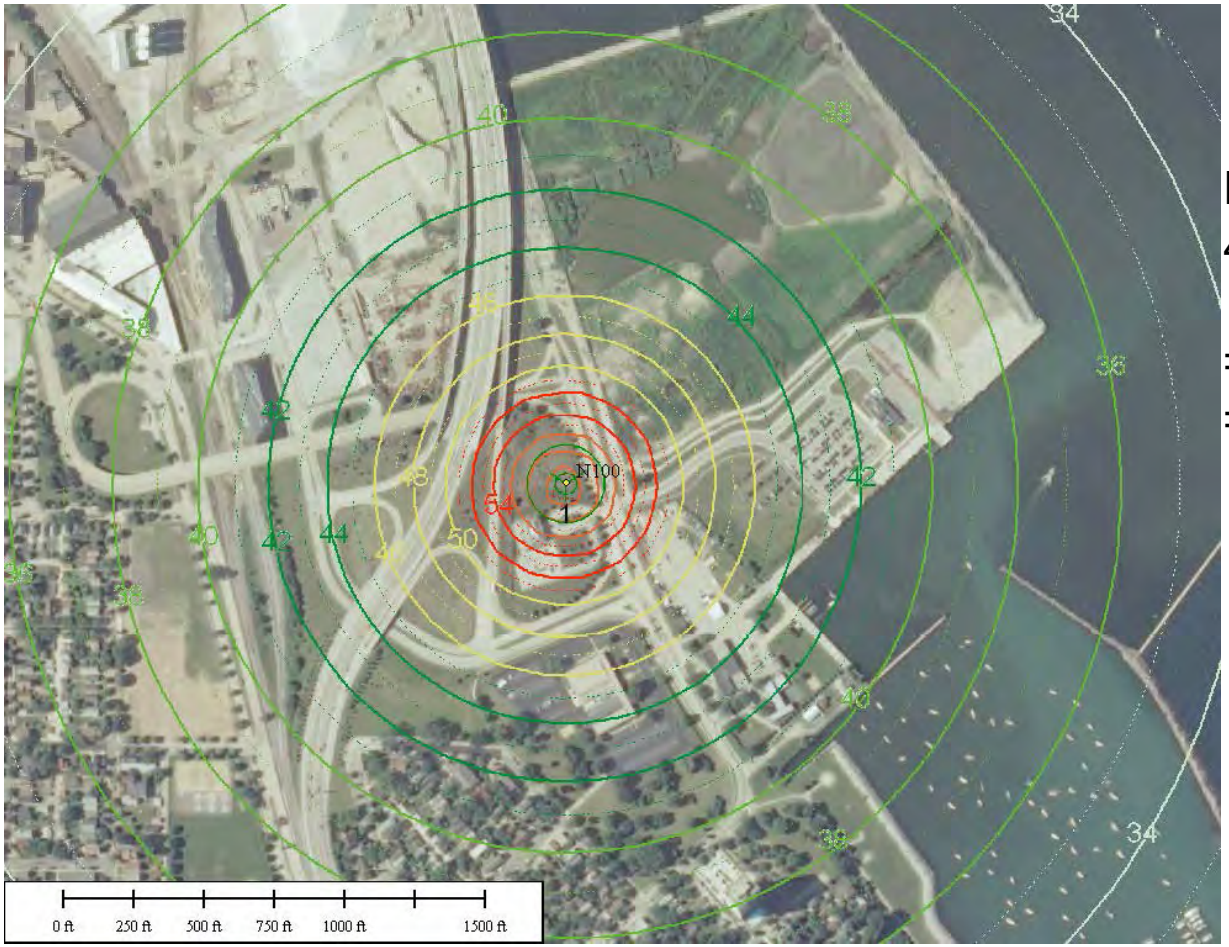
Barely noticeable from Veterans Park

Shadow/Flicker Map



Conclusion: <u>No</u> residences or buildings impacted by shadow

Noise Map



E. Conway & S. Superior:
42 dBA

= Quiet bedroom at night (30s)
=Ave. home during day (50s)

Questions & Comments

For more information, please visit our Wind FAQ:

http://city.milwaukee.gov/sustainability/WindProject

Contact Info

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