

PRESENTATION OF WIND TURBINE DEMONSTRATION PROJECT ON HARBOR ISLAND

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Background

- Extensive wind power development in California over the past 30 years has been driven by economics to larger wind turbines and higher wind regimes
- Past efforts to harness coastal sea breezes have not borne fruit, mainly due to relatively low coastal winds
- This project revisits the viability of coastal winds using a new turbine design

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Project Objective

- Test Enepro vertical-axis wind turbine with added wind accelerators in a coastal wind regime
- Use test results to assess the economic viability of this technology in San Diego coastal winds
 - Performance and O&M tracking
 - Cost-of-energy calculations
 - Lessons learned (engineering experience)

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Pictures



2kW Turbine

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Pictures



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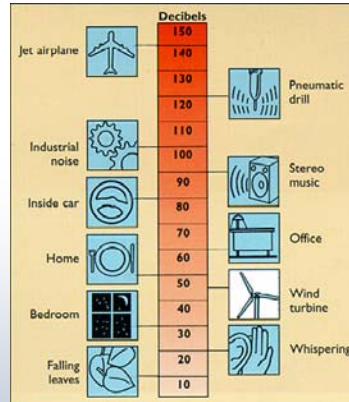
Wind Turbine

- **2 kilowatt system**
- **30 feet tall**
- **Base and turbine ~ 8 feet in diameter**
- **Safety fence around base**

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Low Noise

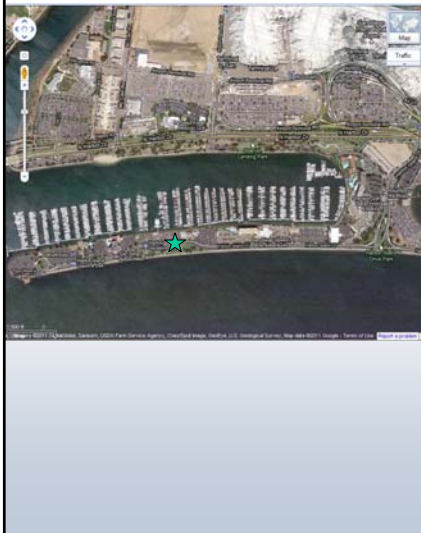
- **Low Noise**
 - Less than 5 db
 - Suitable for Residential Area



Source: American Wind Energy Association
(see http://www.awea.org/pubs/factsheets/050629_Myths_vs_Facts_Fact_Sheet.pdf).

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Location



Schedule

- **Installation – Spring/Summer**
- **Project Demonstration – ~ 1 year**
- **Removal – Spring/Summer 2012***

*Unless all parties decide to continue demonstration for a longer period of time.

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Partnership

- **SDG&E's Contribution**
 - \$200,000 for installation, monitoring and removal
- **SDUPD Contribution**
 - Waived processing fees
 - Hosting location of turbine
- **City of San Diego**
 - Building permit assistance
 - Energy connection at sewage pump station

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Thank You
Any Questions?