



# Best Practices in Small Wind Permitting for Counties

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# The Opportunity

- **Made in the USA:** In 2009, 95% of the small wind turbines installed in the U.S. were made in the U.S.
- **Huge Under-Developed Potential:** 15 million homes, 4 million farms and businesses, thousands of public facilities, military, foreign assistance, etc.
- **Strong Consumer Interest:** “I live on a hill and the wind blows all the time”
- **A New 30% Federal Tax Credit:** Established in 2009



# What is DWEA ?

- **National Trade Association:** like AWEA
- **Industry:** distributed wind: “behind the meter”, “on-site generation”, “small and community wind”... turbines of any size
- **Mission:** to promote and foster all aspects of the American distributed wind energy industry
- **Members:** manufacturers, distributors, project developers, dealers, installers, vendors, state programs, allies, and advocates



# DWEA Committees

- Federal Policy
- State Policy
- Permitting & Zoning
- Installers
- Education
- Midsize

# Small wind market prospects are mixed:

- ✓ **30% U.S. federal tax credit through 2016**
- ✓ **Robust state rebates in seven states (CA, OR, NV, NY, VT, NJ, & MA)**
- **Recession / Mortgage Crisis / Financing**
- **Permitting Difficulties**

# Small Wind Permitting

- ❖ **Nature of zoning ordinances: If not specifically permitted, then not permitted**
- ❖ **Ubiquitous 35 ft height restriction**
  - ❖ **Originally related to fire safety**
- ❖ **In some cases it takes more man-hours to permit a small wind installation than it does to manufacture, deliver, and install the turbine**



# Charles Braswell, Riverside Co., CA

- ❖ Real estate developer
- ❖ 10 kW, 80 ft tower on 9 acres, ~ \$55K project
- ❖ Permitting:
  - ❖ 30 months
  - ❖ \$13,600 in fees
  - ❖ One public hearing
  - ❖ > 20 trips to County offices (2 – 4 hours ea.)
  - ❖ ~ 15 separate checks written

**CB: “Permitting my subdivisions was much, much easier”**



# Aubrey Davis, Nags Head, NC

- ❖ Outer Banks Brewing Station
- ❖ 10 kW, 80 ft tower on 3 acres
- ❖ Permitting:
  - ❖ 55 months
  - ❖ \$2,000
  - ❖ Worked to elect supportive city council after original rejection and 3-year ban on reapplying





# Small Wind Permitting

**What if utilities had had the same regulatory regime ... a public hearing for every utility pole?**



# Why is it so?

- ❖ **Most cities and counties do not have a wind ordinance and fewer still have a good one**
- ❖ **The 35 ft height restriction puts small wind customers behind the 8-Ball right from the start**
- ❖ **Some people consider wind turbines to be visual blights**
- ❖ **NIMBY's inject high emotion and bad information into the debate**
- ❖ **Result: Officials have to respond to mythical risks and emerging “viewscape rights” issues**

# ARGUMENTS AGAINST-



JOE HILLER © 2011 GREENBAY PRESS GAZETTE

# Ordinance Landscape

- ❖ **No small wind ordinances**
  - ❖ Requires variance for height, public hearing: long & costly
  - ❖ NIMBY's empowered
- ❖ **Bad small wind ordinance**
  - ❖ Bad or no small wind installations
  - ❖ NIMBY's as happy as they get
- ❖ **Good small wind ordinance**
  - ❖ Opportunity for market development
  - ❖ NIMBY's not happy



# Resource on Small Wind Permitting Issues

## DWEA Fact Sheets:

- Tower Height
- Setbacks
- Property Values
- Birds and Bats
- Sound / Acoustics
- Aesthetics
- NIMBY's
- Safety
- Ice Shedding

<http://www.distributedwind.org/fact-sheets>



our Wind our Power our Future

### DWEA Briefing Paper: **NIMBY's**

#### Masters of Misinformation

NIMBY is an acronym for the phrase Not In My Back Yard. According to Wikipedia the term NIMBY is used pejoratively to describe opposition by residents to a proposal for a new development near them. While DWEA respects the opinions of those who do not like wind turbines, experience has shown that often NIMBYs serve to distort the policy environment with wild and unsubstantiated claims of alleged harm. The stridency of such opinions can also mask majority opinion in support of wind energy.

#### Setting the Record Straight

A few minutes on the internet can yield a plethora of "potential harms" from small wind systems, including loss of property value and "spoiling the view". While NIMBYs often state their general support for wind energy, their statement is almost always followed by a list of alleged harms outlining why the proposed location is not appropriate. As substantiated in numerous DWEA Briefing Papers, these alleged harms have no basis in fact:

- Small wind turbines do not lower property values or make neighboring properties harder to sell.
- There are no substantiated adverse health effects from small wind turbines or small wind turbine sound, shadow flicker, or electro-magnetic interference.
- There are no significant safety risks from tower collapse, attractive nuisance, ice, or lightning.
- The sound from small wind systems is comparable to residential air-conditioners.
- Windows and cats pose a far greater risk to birds and bats than does any small wind turbine.

A great injustice is perpetrated when public officials, deciding whether a small wind system can be installed, take the allegations of NIMBYs at face value. NIMBYs are certainly entitled to their own opinions, but not to their own facts.

#### Feeding the Anti-Wind Bias of Some Planners

After three decades of industry experience, it has become clear that many planners have a bias against tall structures such as wind turbines and cell phone towers. They may feel the same about utility structures, but typically have no jurisdiction over them. Sometimes planners use their high profile to undermine the approval of small wind turbine projects. Unfortunately, biased planners give NIMBYs and their allegations undeserved credibility. This is generally the dynamic at play when NIMBY allegations of harm go unchallenged during public hearings and deliberations for projects or ordinances for small wind energy systems.

#### The Real Issue is Aesthetics

Opposition to small wind installations arises most commonly when neighbors perceive that their view may be spoiled by the proposed wind turbine installation. This is also the issue at the core of most NIMBY concerns, but allegations of harm are often manufactured by NIMBYs in an attempt to substantiate their bias. As the DWEA Briefing Paper on Aesthetics points out tall man-made structures always generate some aesthetics criticism, as was the case with the Eiffel Tower, Brooklyn Bridge, and the Statue of Liberty. Minority NIMBY complaints should be kept in perspective and balanced against the overwhelming societal good of wind energy. DWEA recommends that NIMBYs be afforded respect for their opinions, including aesthetic concerns, but that they not be afforded credibility for unsubstantiated allegations regarding health, safety, and financial harm due to a small wind turbine installation. As Robert Kennedy said, "Progress is a nice word. But change is its motivator. And change has its enemies."

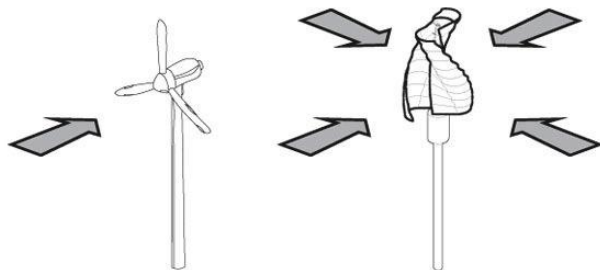
[www.distributedwind.org](http://www.distributedwind.org)

# What Makes for Bad Ordinances?

- ❖ Tower height restrictions below 80 ft.
- ❖ Forbidding lattice towers
- ❖ Noise restrictions below 50 dBA (less than background!)
- ❖ Set-backs referenced to property line rather than neighboring occupied structure
- ❖ Set-backs greater than total height
- ❖ Requires public hearing
- ❖ Favoring roof-mounted installations
- ❖ Very high fees (> ~ \$500)

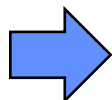
# New Disturbing Phenomenon: Ordinances Influenced by Hucksters

“Tall towers are unnecessary with our technology”



# Example: Corpus Christi's Ordinance

- ✓ Permitted use ordinance
- ✓ Certification / Approved list requirement
- ✓ / ~~Ø~~ Min. tower height, 12' for VAWT, 25' for HAWT
- ~~Ø~~ 55' max. total height, 85' in Heavy Industrial & Ag.
- ~~Ø~~ Guyed and lattice towers prohibited
- ~~Ø~~ Not allowed in front of property
- ~~Ø~~ Set-backs from property lines



**Good intentions; but huckster influenced**



# What Makes a Good Ordinance?

Small Wind Turbine's a permitted use under reasonable constraints and fees

- ❖ Effective tower heights allowed (100 – 200 ft), relating to set-backs
- ❖ Set-back no worse than total height from neighboring occupied structure
- ❖ Noise limits relative to background and anticipating high wind events
- ❖ PE mech.-stamped structural analysis to TIA/EIA -222-g
- ❖ Wiring conforms to NEC Section 694
- ❖ Over-the-counter permit with fees  $\leq$  \$500



# Options for Consumer Protection

- ❖ **Require turbine certification to AWEA 9.1-2009 (limited to ~ 50 kW turbines) ... see <http://www.smallwindcertification.org/>**
- ❖ **Set minimum tower height of 60 ft.**
- ❖ **Forbid roof-top turbines**



# Examples of Good County Ordinances:

- ❖ **San Bernardino County, California**
- ❖ **Solano County, California**



# Recommendations

- ❖ **Let your residents use small wind**
- ❖ **Beware of hucksters & their misinformation**
- ❖ **Adopt, or at least start with, the DWEA model ordinance ([www.distributedwind.org](http://www.distributedwind.org))**



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