

Zoning Enforcement of Green Initiatives

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Zoning Enforcement of Green Initiatives

- Has the rush to be “green” hit your community?
- Positive sustainable efforts are being put forward
- Realistic view of zoning implications



- Where are the green initiatives coming from?
 - Local level
 - Private sector initiatives
 - Example: U.S. Green Building Coalition – LEED program
 - Federal/State requirements
 - Example: Clean Water Act/ MS-4 requirements
 - Some states have restricted the local authority to restrict green initiatives
 - Example: Massachusetts has a provision that restricts a locality's zoning ordinance from prohibiting or unreasonably restricting solar energy systems.
 - Federal incentives
 - Example: Energy Efficiency/Renewable Energy Tax Incentives

- Zoning Enforcement

- Is zoning enforcement a key consideration in policy development?

- What are the resource implications?

- Staff time

- Adequate training

- New equipment – i.e. Dark Skies initiatives – if you have specific foot candle requirements...you may need to prove a violation at some point.

- Cumulative affect of all initiatives

- Are the tough questions being asked?

- Whose asking if you're not?

Types of Green Initiatives

- Solar Power
- Urban Chickens
- Wind Turbines

Solar Panels

- How are they being used?
 - Solar water heating for use in a building
 - Solar water heating for space heating (Pool heating as well)
 - Photovoltaic

Solar Panels

- What are the community concerns?
 - Concern for being aesthetically pleasing from the street
 - Free standing solar panels in residential areas don't fit the character

Solar Panels

- How does your locality classify solar panels?
- Would it fall under mechanical equipment, accessory use?
- How is it regulated?

Solar Panels

- Building mounted
 - Newer buildings can incorporate the system into design
 - Problems with retrofitting on Single Family Structures
 - Orientation of the building
 - Pitch of existing roofs
 - Limited roof space

Solar Panels

- Building mounted
 - Impacts can be controlled other ways than screening
 - Areas to enforce:
 - Mounting Height
 - Possible nuisance abatement - glare



Virginia Tech 2009 Solar Decathlon Entry
“Lumenhaus”





Solar Panels

- Ground mounted
 - Commercial and residential applications
 - Setbacks, location, footprint height enforceable
 - Should screening be required?
 - Specific screening language needed



Urban Chickens

- Help reduce carbon footprint
- Helps support local food movement
- Eat problematic bugs and weeds in gardens
- Provides natural fertilizer
- Eat leftover food scraps
- Improved animal welfare



Community Concerns

- Noise
- Waste and Odor Issues
- Disease
- Appearance concerns
- Slaughter

Sample Ordinance for Urban Chickens

- Provide maximum number of hens. For example: 6 to 10 chickens on a residential lot
- No person shall keep any rooster.
- The chickens shall be provided with a covered enclosure and must be kept in the covered enclosure or a fenced enclosure at all times.
- No enclosure shall be located closer than twenty (20) feet to any residential structure on an adjacent lot.
- The materials used in making the structure shall be uniform for each element of the structure.
- The owner, operator, or tenant shall register their hens.
- All chicken houses and lots must be maintained in a clean and sanitary condition at all times.
- It shall be unlawful to raise chickens for commercial purposes within the corporate limits of the town.

Urban Chicken Coops



Urban Chicken Coops



Zoning Enforcement

- High level of coordination with Police and Animal Control
 - Roaming hens are among the top three complaints from Portland residents. (Multnomah County Vector Control)
 - “It's not fun to live next door to these indiscriminate poopers or to come home to find chickens scratching around in expensive plants.”
- Ensure Locality’s code is clear that a violation is not just a zoning violation



Small Wind Turbines

- Renewable
- Reduces toxic gas emissions
- Pollution Free
- Cost of energy
- Growing interest
 - Dr. Papadakis, JMU

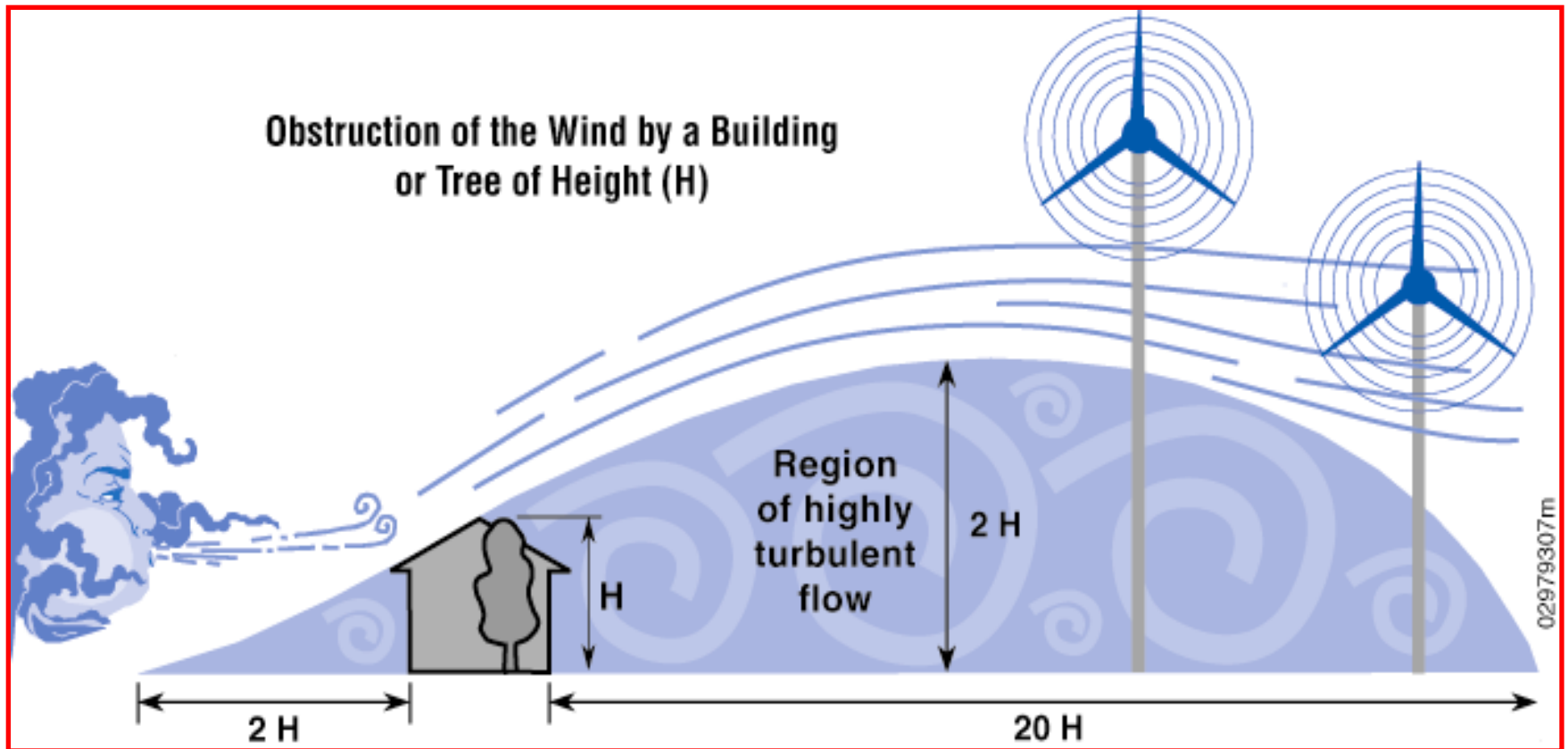
Community Concerns for Wind Power

- Noise
- Visibility
 - Height
 - Community/Neighbor Aesthetic Concerns
- Zoning issue: Permitted use? Conditional use?

Sample Ordinance for Wind Turbines

- Ordinances can mitigate visibility debate by requiring small wind energy towers to have a finish or be painted to match the surrounding environment and architecture.
- Prohibit signage and lighting (except as required by the FAA).
- Can include setbacks or decibel maximums (For example: 60 decibels, as measured at the closest property line. The level, however, may be exceeded during short-term events such as utility outages and/or severe windstorms.
- Wind energy system shall be set back a distance at least equal to the height of the tower plus the blade length from all adjacent property lines. Additionally, no portion of the small wind energy system, including guy wire anchors, may extend closer than ten (10) feet to the property line.
- Removal of defective or abandoned wind energy systems

- Importance of Micro-Siting (provided by NREL)



Residential Wind Turbines



Residential Wind Turbines



Zoning Enforcement

- Setbacks – Should a survey be required?
- Noise Measurements
 - Is the equipment available?
 - Zoning Officials trained?
- Abandonment
 - Working with individual property owners could be problematic.
 - Is it too burdensome to require a security for removal.

Green Roofs

- Storm water management for roofs- less runoff, less erosion, less pollution
- Extend life of the roof
- Better insulation
- Aesthetically pleasing

Potential Problems for Green Roofs

- In specific towns (i.e. historic towns) can be accused of altering town character
- Greater weight load on roof
- Need for irrigation and draining systems requiring energy, water and materials
- Higher capital and maintenance cost

Residential/Commercial Green Roofs



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Resources

- <http://www.tnsmonona.org/chicken-facts-documents-and-news-articles/>
- www.carychickens.com
- <http://www.seriouslysolar.com/advantages.php>
- http://www.marc.org/assets/planningroundtable/Presentation_Enslinger_Solar.pdf
- http://www.publicceo.com/index.php?option=com_content&view=article&id=377:santa-monica-solar-panel-ordinance-creates-energetic-buzz&catid=153:policy-issues-publicceo-exclusive&Itemid=23
- http://www.windpoweringamerica.gov/pdfs/small_wind/va_zoning.pdf
- <http://www.buzzle.com/articles/advantages-of-green-roof-systems.html>
- http://www.jamestownpress.com/news/2009-09-03/News/Zoning_amendment_will_allow_green_roof.html
- http://www.uvm.edu/~ecolivng/older_projects_files/Page266.htm
- http://commons.bcit.ca/greenroof/publications/2006_regulations.pdf

Questions/Comments

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