

# Challenges Siting DG Wind in NY

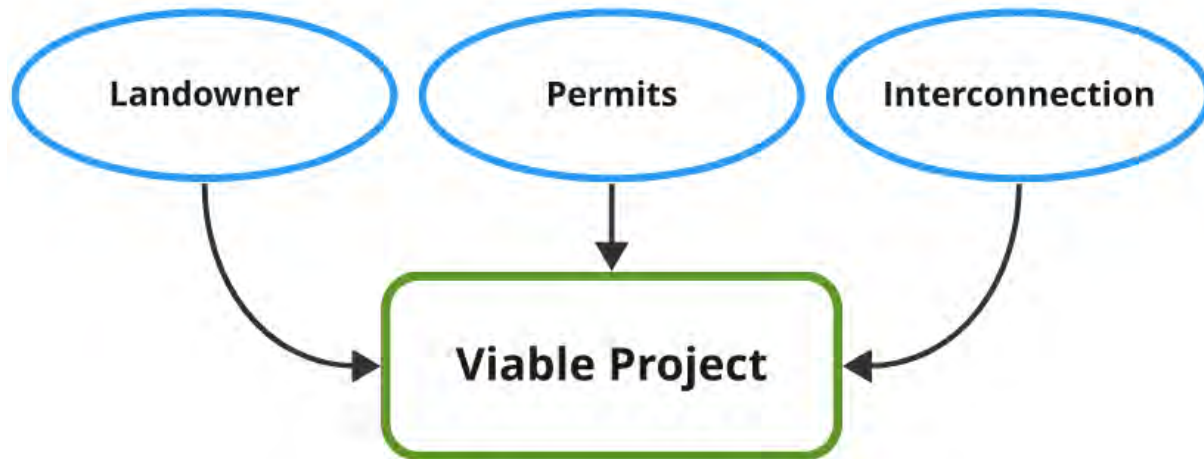
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Brandon Smith, Civil Engineer



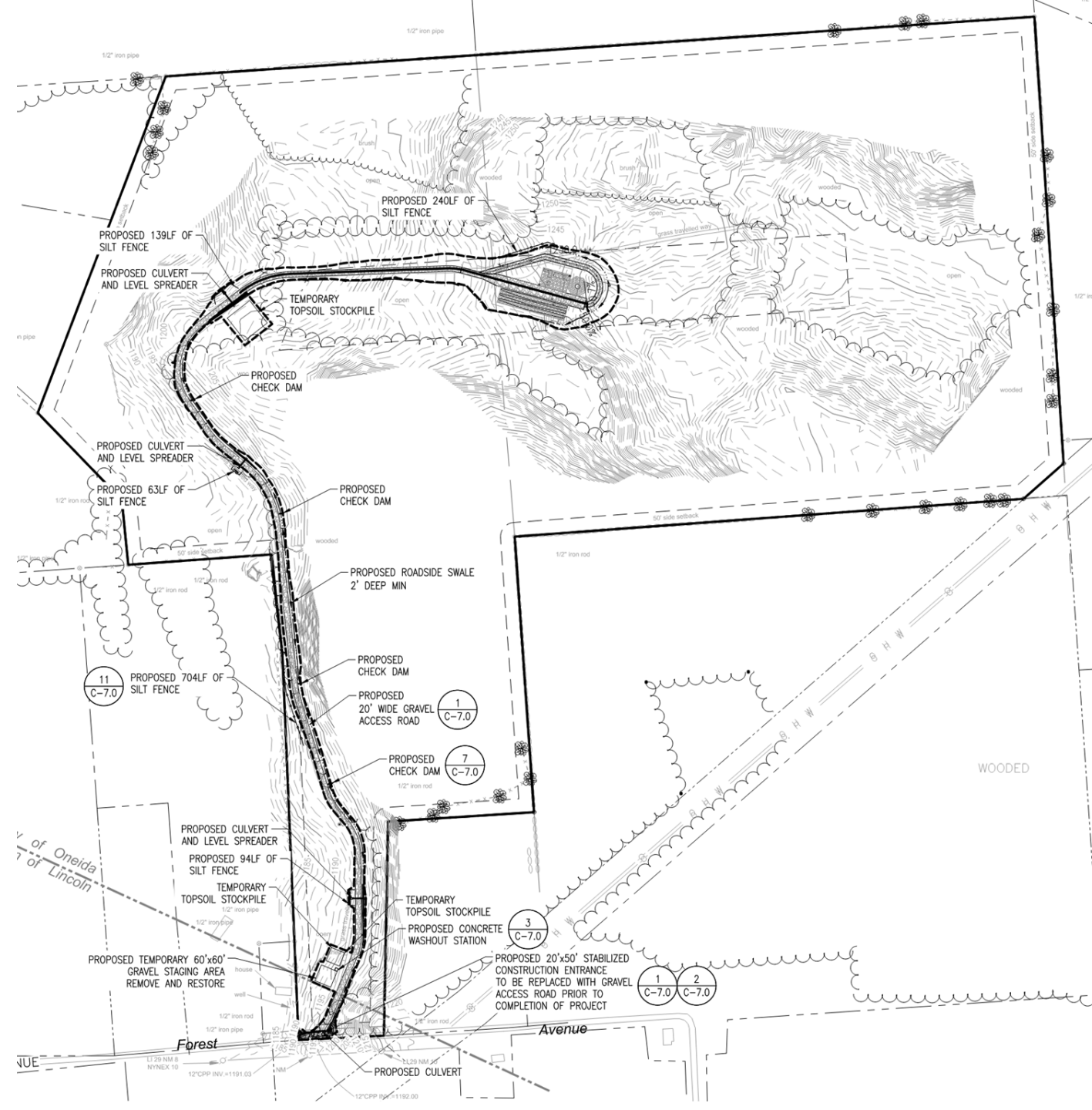
# New Leaf Energy - What We Do

- Formerly the Development arm of Borrego Solar
- Core focus is Distributed Generation Solar
  - 5MW AC Interconnection



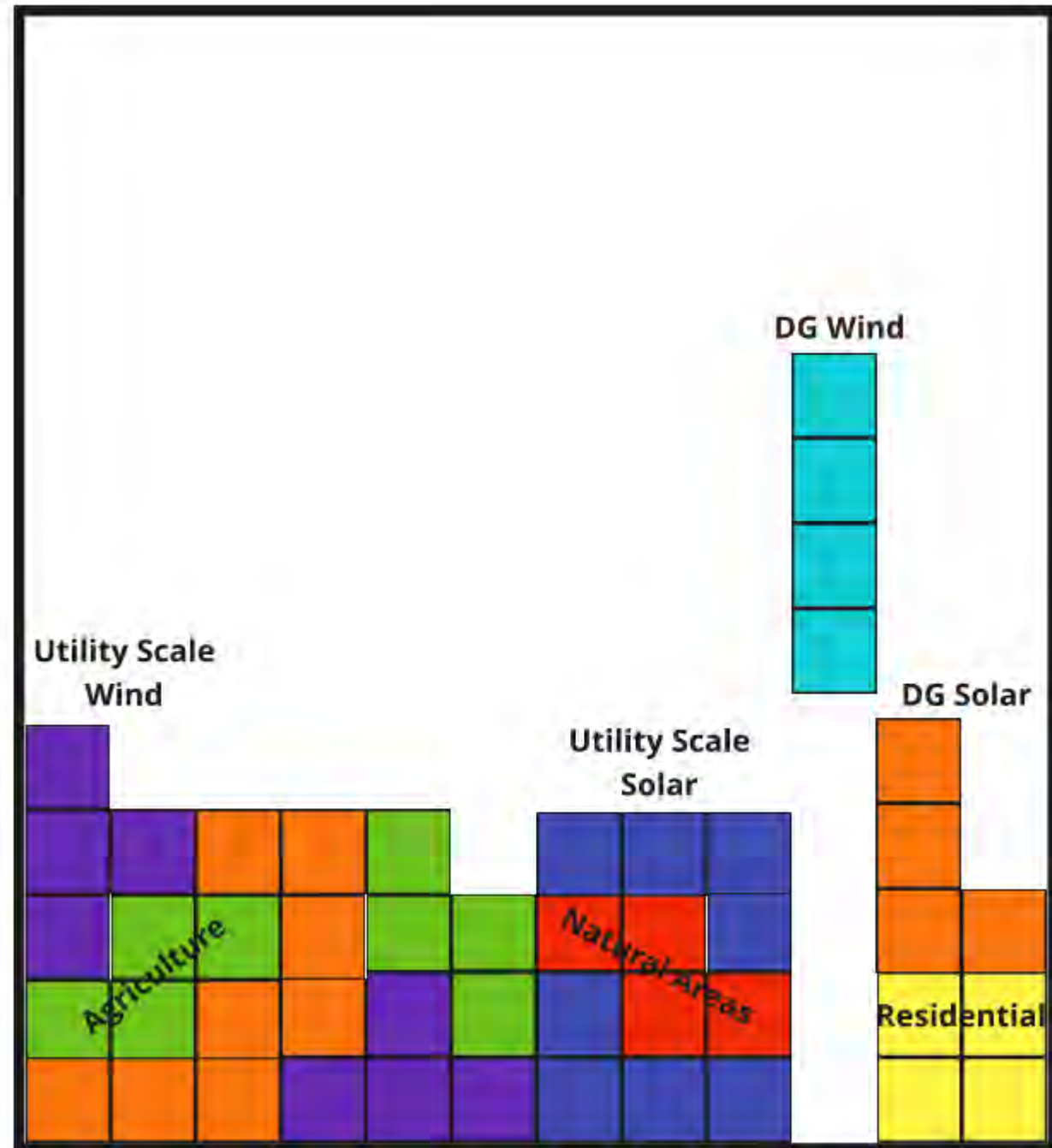
# What is Community Wind?

- Not a utility-scale wind farm, but also not small scale
- Distributed Generation (DG)
  - 5 MW AC Interconnections
- 1-2 Turbines per project
- Large, efficient turbine models
  - Tip Height = 550-650 feet
  - Blade Length = 200-270 feet
- 1-5 acres of disturbance



# Why Community Wind?

- Small project on minimal acreage
  - More MW per Acre than solar
  - As little as 5 acres can produce enough energy to power 2,500 homes
- Can be sited in areas where other types of renewables are not a good fit
- Provides another tool in the renewable energy toolbox
- Do not require funding from NYSERDA to be economically viable



\*Block areas shown are not proportional to actual proposed use areas

# Environmental Considerations and Concerns

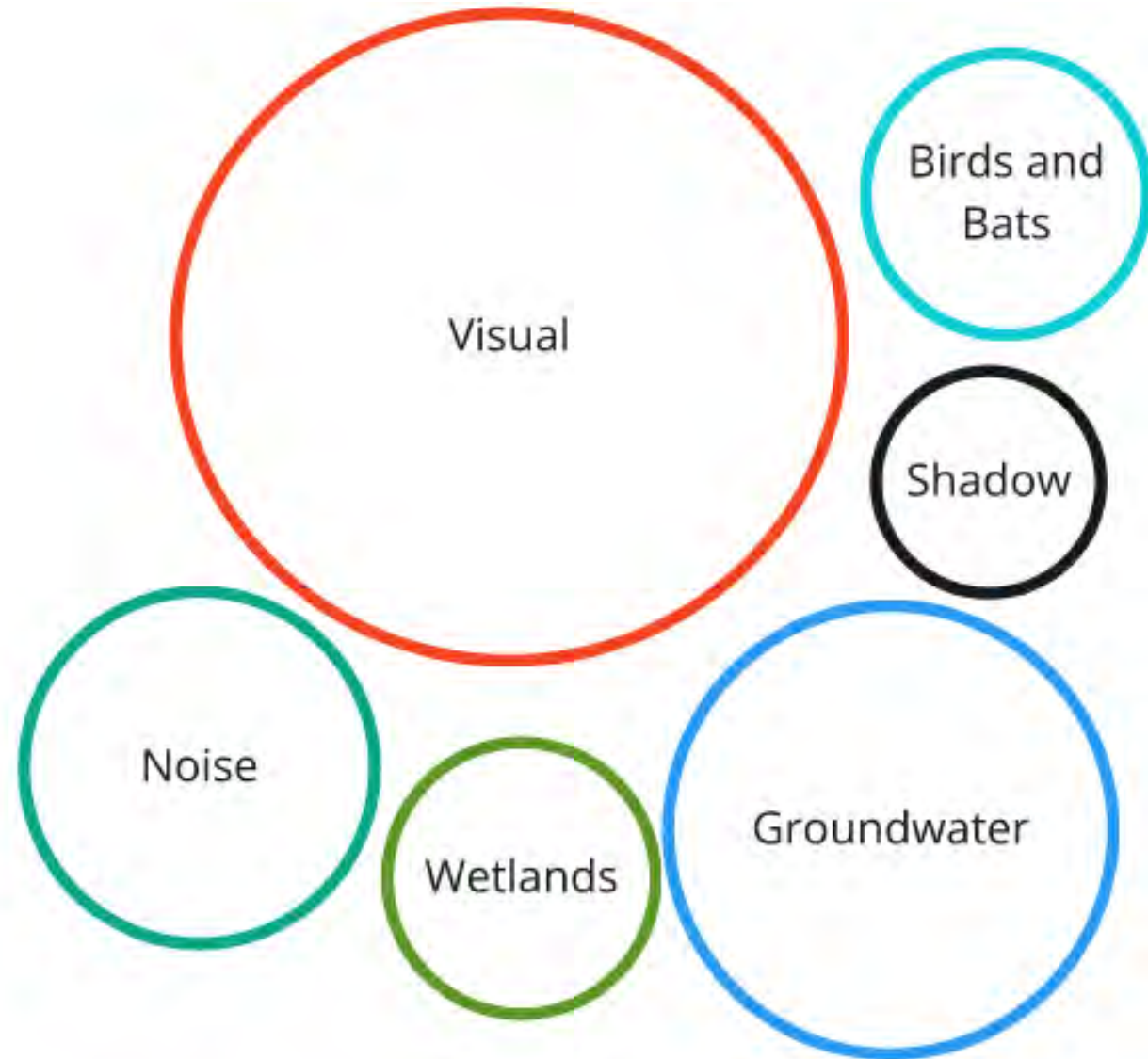
**Noise:** Typically below 50dB within property lines, and 35-40dB at nearest residence. Local bylaws are sometimes more stringent than ORES 94-c.

**Shadow:** 30 hours per year standard, although some bylaws are more stringent. Curtailment needed in some cases.

**Groundwater:** Concerns of foundation construction impacting aquifers or wells

**Birds and Bats:** Not typically main concern locally. Curtailment and operational conditions included in project assumptions.

**Wetlands:** Impacts usually avoidable or minor



# Environmental Considerations and Concerns

## - Visual

- #1 concern
- Difficult to quantify
- Highly subjective



# How's It Going?

<u>The Good</u>	<u>The Bad</u>
<ul style="list-style-type: none"><li>– Coordination with State Agencies and FAA<ul style="list-style-type: none"><li>• DEC</li><li>• SHPO</li></ul></li> <li>– A consistent review approach has been established<ul style="list-style-type: none"><li>• Not 100% ironed out but making progress</li></ul></li></ul>	<ul style="list-style-type: none"><li>– SEQR<ul style="list-style-type: none"><li>• Difficulty predicting what will be found a significant impact resulting in Pos Dec</li><li>• Inconsistent determination of appropriate mitigation</li></ul></li> <li>– Permitting<ul style="list-style-type: none"><li>• ~40% moratorium rate</li></ul></li> <li>– Extended Timelines<ul style="list-style-type: none"><li>• Two projects approaching 2 years</li></ul></li> <li>– Community Opposition</li></ul>

# What Can We Do?

## Guidance to Municipalities

- Bylaws
- SEQR

## ORES Lite?

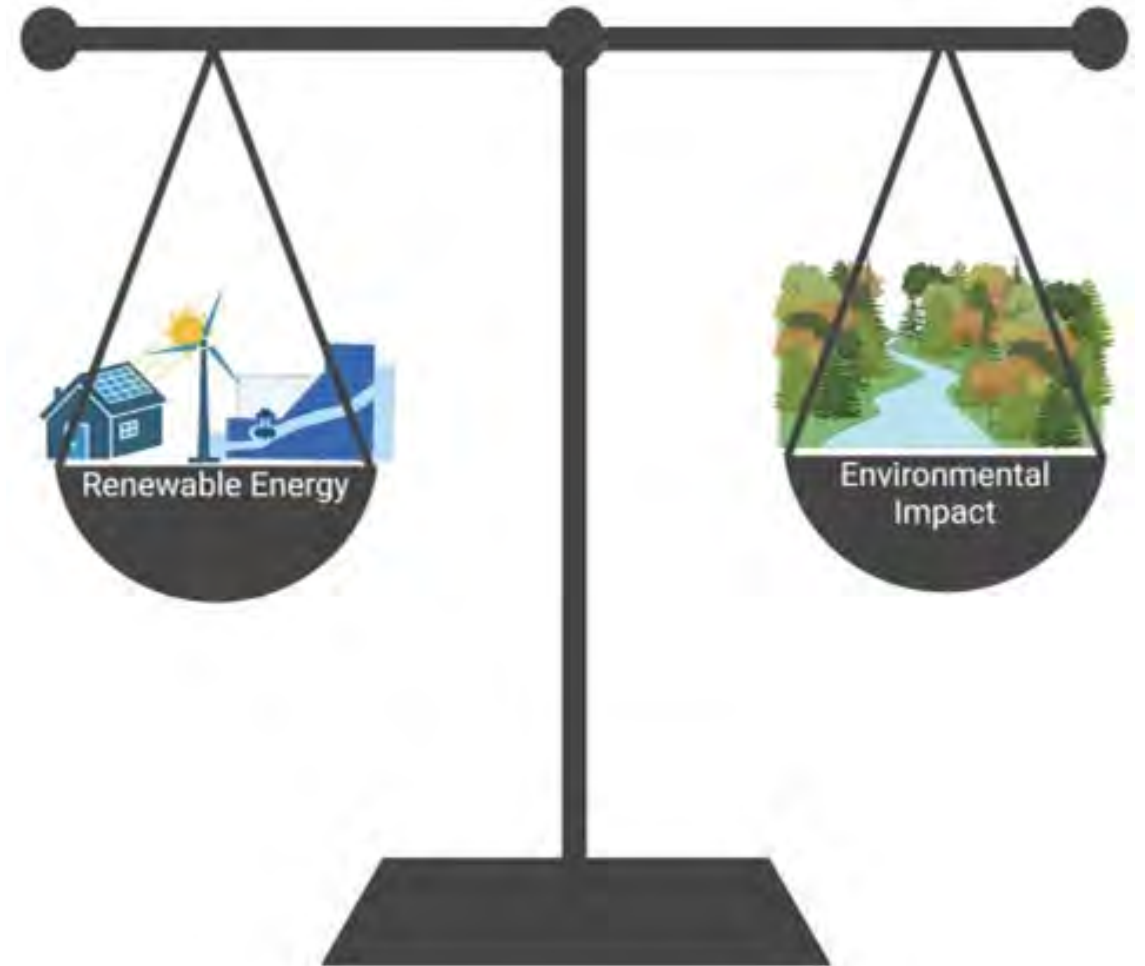
- CT Siting Council as an example
  - Jurisdiction down to 1MW
  - Streamlined, simplified process for renewables <65MW





# Consistency is Key

- Eliminating uncertainty helps avoid poorly sited projects
- PV is more mature, but energy storage may run into similar challenges
- A consistent and efficient process allows more time and money that can be allocated to environmental protections



# Thank you.



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