

Is NIMBYism Standing in the Way of the Clean Energy Transition?

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Relevance for Swedish policy debate?

- 1 The study by Jarvis is probably the most well-made, although not the only study documenting reductions in property values following wind power establishments.
- 2 Widespread worry that Swedish municipalities exercise veto to reject projects due to local disturbances.
- 3 Municipalities are not allowed to bargain with projectors about financial compensation as a condition for acceptance (although it does occur, see e.g. SR (2013), "Veto med en prislapp").
- 4 Several academic studies point to negligible economic benefits (e.g. job creation) following wind power establishments.

⇒ A low approval rate should come as no surprise!

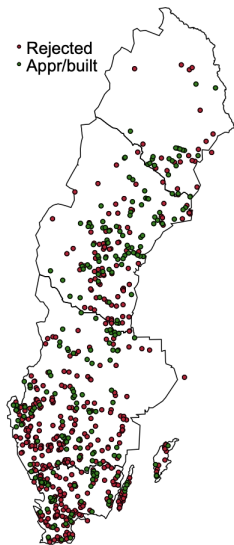
State of Swedish Policy?

- Proposition from government to introduce 9 month time limit (from day of application) to exercise municipal veto (Prop. 2021/22:210, April 2022)
- Recently initiated government report on introducing financial compensation for municipalities conditional on acceptance (Dir. 2022:27, March 2023).
- Why not start by introducing financial incentives and then possibly impose restrictions on veto after observing the effect of the compensation scheme?

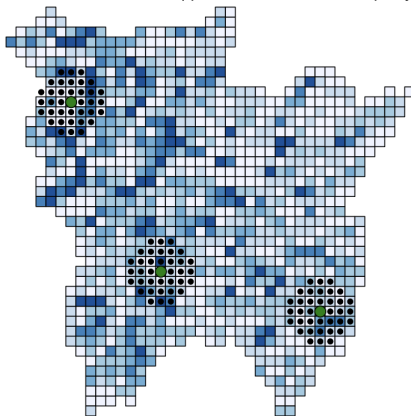
Let's bring Jarvis' results to Swedish data!

- Environmental party already has a proposal: **30 KSEK/GWh/year**. Could this compensate property value reductions in Sweden?
- Method:
 - ① From Jarvis: Property value reduction by 3-5 % depending on distance from wind power (1-3 km).
 - ② Initial value of properties around wind farm equal to observed mean value for relevant municipality for the year 2020 (mean=1.6 MSEK)
 - ③ Locate houses by combining data from Vindbrukskollen and Lantmateriet.
 - ④ Exclude projects with less than five turbines.
 - ⑤ Reduction does not vary with nr. of turbines (in reality more disturbance with more turbines).

Figure: Wind power applications and house counts



House counts around applications in Mark municipality



Results (very preliminary, do not cite!)

- ① Nr of residential houses around a wind project: 0.2 (< 1 km), 5.2 (< 2 km), 20.2 (< 3 km).
- ② Mean total property value reduction per project: **1.2 MSEK**.
- ③ Median total value reduction per project and GWh during first year of operation: 5 (12) KSEK for approved (not approved) projects.
 - ▶ **Conclusion 1:** **80 (70) percent of all approved (not approved) projects can cover property value reductions by allocating the total proposed compensation during the first year to the neighboring property owners.** Note: Very preliminary results!
 - ▶ **Conclusion 2:** Given a wholesale market price of 500 KSEK/GWh (in reality relatively more in the south), on average **4 (6) percent of revenues during the first year of operation would cover total value reduction for approved (not approved) projects.**

Results and Conclusion

- Extrapolation of Jarvis' results to Sweden:
 - ① Mean total property value reduction per project: **1.2 MSEK**.
 - ② For 80 (70) percent of all approved (not approved) projects, total reduction is less than 1 year of proposed compensation.
 - ③ Or equivalently on average 4(6) percent of revenues during first year of operation for approved (not approved) projects.
- Swedish policy: Almost no economic incentives for municipalities to approve projects, and large local costs. **Why introduce restrictions on veto before a proper financial compensation scheme is in place?**

Thank you for your attention!

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