



The Rationality of Wind Energy Taxation

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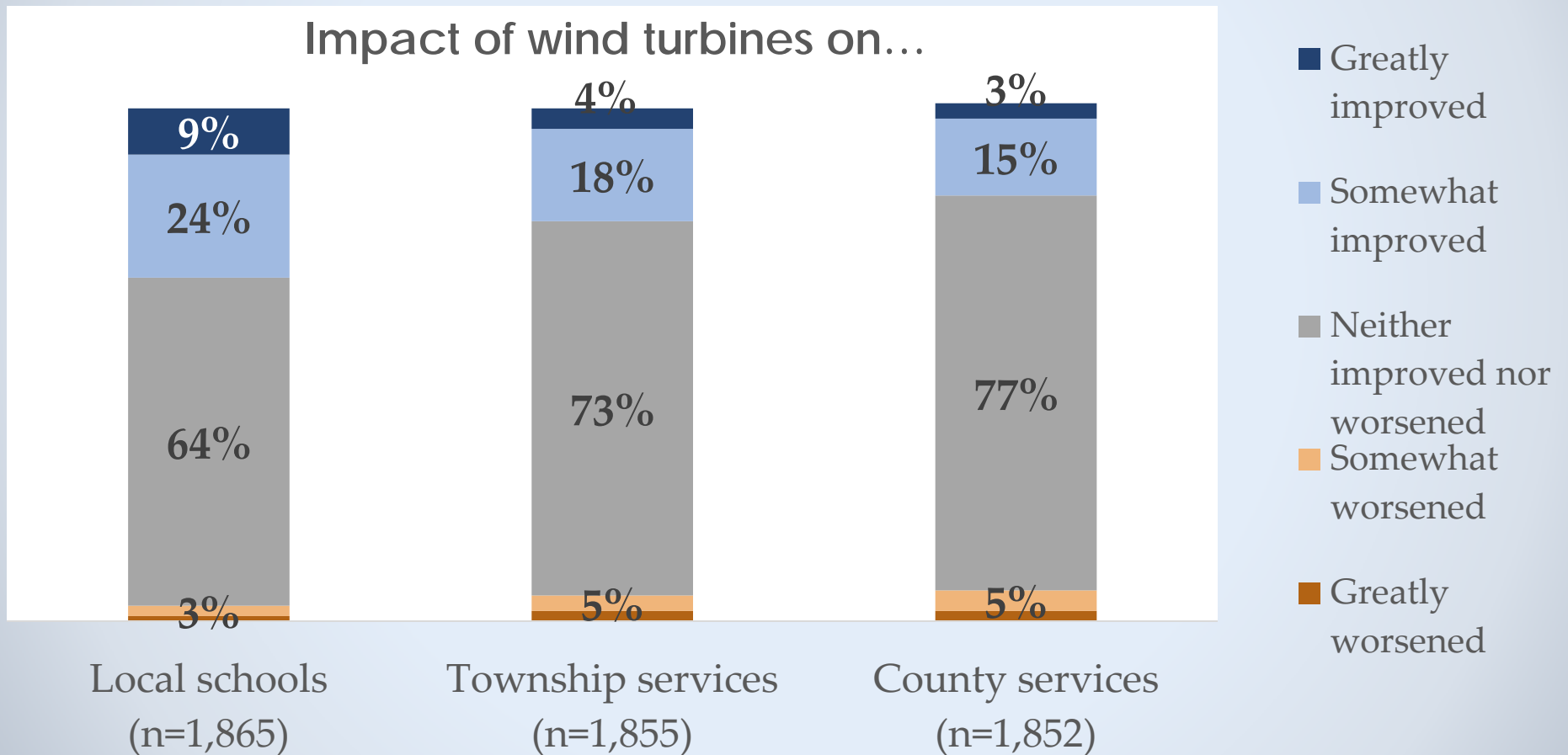
ISSRM Conference 2018

Photo by Heritage Sustainable Energy



Credit: Hans Braxmeier

Policy problem: Low recognition of tax benefits in MI



As many tax structures as states...

- **Structure** (Adapted from AWEA/Polsinelli 2017)
 - Ad valorem property tax
 - Like any other equipment (11)
 - Specific calculation method (6)
 - Full/partial exemption (3)
 - Based on production or nameplate (8)
 - Negotiated payment (12)
- **Tax rate**
 - Range: \$0-47,000 / MW
 - Mean: ~\$12,000 / MW

From the Community Acceptance Literature

- Impact of Community-Wide Benefits on Community Acceptance

Brannstrom et al 2011, Slattery et al 2012, Sowers 2006, Stafford & Hartman 2012

- Tax Structure on Local Wind Tax Revenues

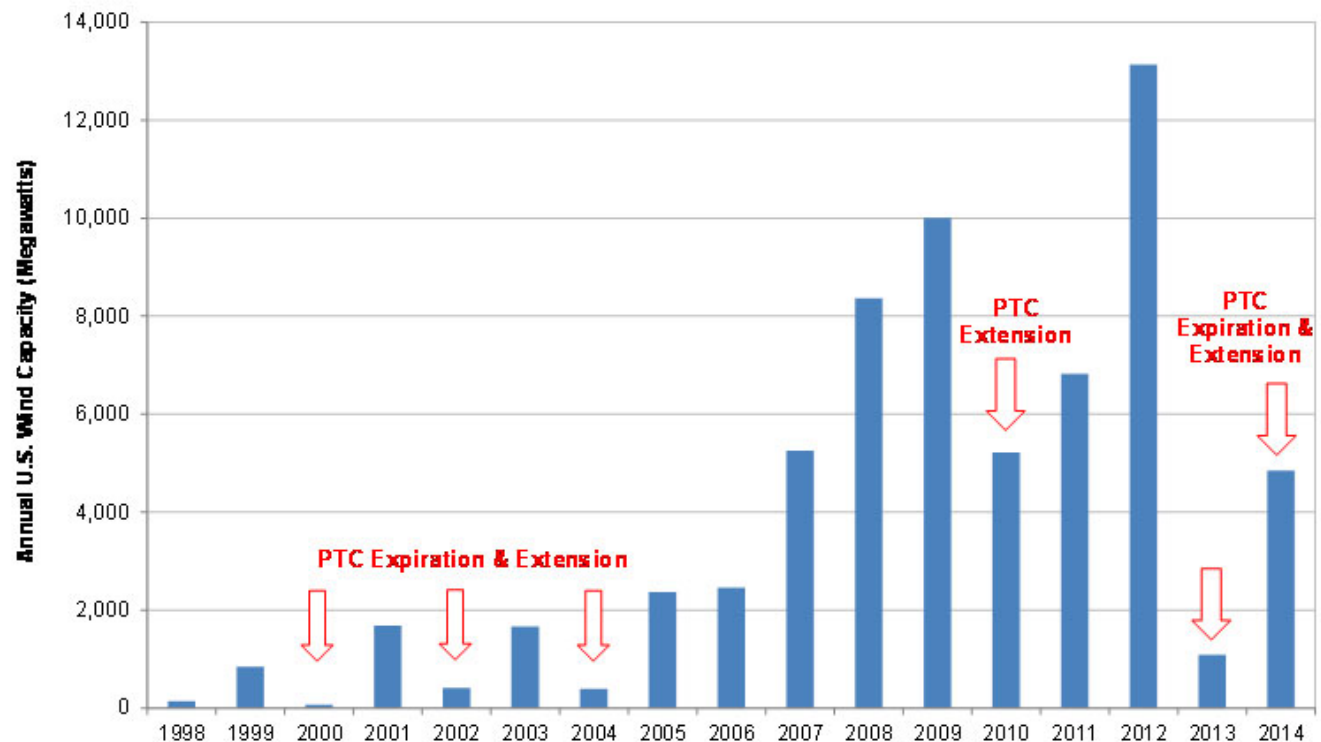
Black et al 2014, Haggerty et al 2014, Kahn 2013, Loomis et al 2016

From Energy Econ / Policy Literature

- Tax Incentives on Wind Development

Barradale 2010, Bolinger 2014, Eryilmaz & Homans 2015, Shrimali et al 2015, Wisser et al 2007

**Impact of Production Tax Credit Expiration and Extension on
U.S. Annual Installed Wind Capacity**



Source:
Union of
Concerned
Scientists

Research Question

- Finding Balance
- What is a rational state tax structure for facilitating wind energy development?



Source: <http://windwaste.com/wind-energy-tax-incentives-must-reined/>

Methods

- Semi-structured interviews with wind developers
- 6 Interviews (so far)
 - In-field project managers + Financial directors
 - Experience from Dakotas through New York (+ Southeast Solar)

Relative Importance of Tax Structure/Rate

- “**Lower priority**” compared to market for power
- “**Important, but not critical**”; market for power, wind resource, siting regulations all more important
- “**10 years ago** it was more important; not anymore”
- “Never seen project die because of tax structure”
- Distinction between utility and corporate buyer

Characteristics of Favorable Tax Structure

- “**Certainty** is key”
- “**Certainty** is key, though lower taxes help”
- “Exemption or abatement helps, but what’s most important is that it is **predictable**”
- “We can live with pretty much anything, we just need to be able to plan for it upfront.”
- Comments on assessors

Landowner Compensation, Community Benefits

- Landowner payments and community benefits treated as **two separate budget lines**
- **Donations** / increased community benefits when local abatement/lower taxes

Tax Structure Impact on Community Acceptance

- “Even if you love turbines, you have to admit that there is a **visual burden** on the local community.”
- “Has to be **something in it for entire** local community”
- “Prefer taxes coming back to the **local unit**,” especially if local government has the decision-making authority

Analysis

- Ad valorem property tax
 - Like any other equipment (11)
 - Specific calculation method (6)
 - Full/partial exemption (3)

Least predictable because of assessor

Exemption likely made up with community benefits agreement

- Based on production or nameplate (8)
- Negotiated payment (12)

All interviewees preferred PILT/PILOT

Added long-term certainty to them, preferable terms for local government

Questions that Arise with PILOTs

- Information / power imbalance
 - Capacity of local government (especially townships)?
- Should siting decision and PILOT go hand-in-hand?
 - What at state-level siting?
- Lead to more discussion in community
 - If local discretion, more local discussion?
 - Increase perception of local control/local input?

(Tentative) Conclusions

- Not all taxes are bad for wind energy
 - Local taxes vs. state/federal
 - Little rationale for abatements
- Developers prefer negotiated payments
 - Say to create certainty; maybe to reduce overall burden
- Perhaps PILOT within parameters?
 - Example from UK (Cowell & Devine-Wright 2018)

Next (and Future) Steps

- More wind developer interviews planned
- Surveys of community members: Are residents in PILOT communities more aware of tax benefits?

Questions / Feedback Most Welcome!

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