

From: Doug Paulson

Sent: Sunday, 04 March 2018 18:41:09 (UTC-06:00) Central Time (US & Canada)

To: PUC

Subject: [EXT] property value impact studies by wind turbines for docket EL17-055

Summary: Wind Turbine - Property Value Impact Studies						
Independent Studies						
Author	Type	Year	Location	Method	Distance	Impact %
██████████	Appraiser	2012	Ontario	Resale ⁽¹⁾	< 2 miles	(39%) Avg. 23%–59%
██████████	Academic RWTH Aachen University	2012	Rheine & Neuenkirchen	Geographic Weighted Regression ⁽²⁾	2 Km	(25%)
██████████ ██████████	Academic Clarkson University	2011	Upstate NY	Regression Resale & Census Block	1/10 to 3 miles	Varies to > (45%)
██████████	Appraiser	2009 –2012	Illinois, ⁽³⁾ MI, MA, WI	Paired Sales & resale	< 2 miles	(25%) 20% – 40%
██████████	Appraiser	2009	Texas	Paired Sales	1.8 miles	(25%)
██████████	Appraiser	2009	Wisconsin ⁽⁴⁾	Regression & Survey	Visible vs. not visible	(30– 40%) (24– 39%)
██████████	Broker	2007	Ontario	Paired Sales	3 NM	(15%) \$48,000
██████████ ██████████	Committee ⁽⁵⁾	2000– 2002	Wisconsin	AV ratio 104% v. 76%	1 mile	(24%)
Wind Industry–Funded Studies						
██████████ ██████████	Appraisers ██████████	2010	Ontario	Regression Paired Sales	Viewshed ⁽⁶⁾	(7%–13%) (9%)

██████████	Academic ISU - REP Student thesis	2010	Illinois	Pooled Regression Realtor survey	3 miles 1/2 mile	No SS (11.8%) ⁽⁷⁾
██████████	USDOE- funded LBNL	2009	9 states	Pooled regression	5 miles 3k ft - 1 mile	Increases (5.6%) ⁽⁸⁾

Sources

1. ██████████ study uses resales from developer to private buyers, with Easement in Gross condition of sale. Buyer accepts noise impacts, etc., waives liability
2. Lots only. No pooling of data
3. ██████████ study & research updated, multiple states
4. ██████████ regression lot sales; Realtor survey residential
5. Committee compared actual sale prices vs. AV and found homes up to 1 mile sold @ 76% of AV, and > 1 mile @ 104% of AV
6. Usually cited as being a study that found no impact. However, all methods used yielded negative numeric indication. Author concludes no statistical significance.
7. Cites Realtor who believes no impact on value > 3 miles. Concludes some results indicate “wind farm anticipation stigma” (11.8%)/Pg.55. Author states “the results neither support nor reject the existence of a wind farm nuisance stigma after the wind farm achieved commercial operation....likely due to only 11 properties selling during operations within 1 mile of wind farm.” Good neighbor payments to some nearby neighbors. Values near wind farm appreciated \$13,524 after operation, following \$21,916 decline measured under anticipation stigma theory. (Net loss of \$8,392 pre - vs. post operation./Pg. 120.
8. Study excludes developer resales with 36% & 80% discounts from buyout price. Pooled data from 9 states 24 projects insures lack of statistical significance for value loss examples near turbines. Other sales nearby excluded due to deviation too far from mean and resale.

About ██████████:

- ██████████
- ██████████
- ██████████
- ██████████
- ██████████
- ██████████
- ██████████
- ██████████
- ██████████
- ██████████

Doug Paulson 16349 423rd ave Clark,SD 57225-dapsd1@hotmail.com -605-237-8065