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Hello,

My name is Chad Walker, and I am a graduate researcher in Geography at Western University working under the supervision of Dr. Jamie Baxter. I am carrying out a study on the planning and siting processes of wind turbines in rural communities. I would greatly appreciate it if an adult member of your household (18 years or older) would complete the enclosed questionnaire and return it to the university by mail. A postage-paid envelope is included for your convenience. As an alternative, the adult member of your household can also complete the survey online through Western's survey platform, Qualtrics. See more details below under Online Option. The survey should take approximately 10 minutes to complete and is anonymous.

Thank you for your time.
Chad Walker
LINIOUE CODE TO ACCESS ONLINE SURVEY: "Unique code"

UNIQUE CODE TO ACCESS ONLINE SURVEY: «Unique_code»

Title: Toolkits for Turbine Communities – The planning and siting processes for wind turbines **Affiliation:** Department of Geography, Faculty of Social Science, University of Western Ontario

Introduction/Purpose

This questionnaire is part of a Western University research project¹ which investigates the planning process and local impacts of wind energy development in Ontario and Nova Scotia. If you choose to participate in this survey, you will be asked your opinions and your experience with the wind turbines in your community. This survey questionnaire takes about **10 minutes** to complete.

Risks/Benefits

There are no known risks to your participation in this study. This study may benefit your community and other communities facing proposed wind development. It may also help developers and government policy-makers by providing information on how to better design siting, mitigation and monitoring processes associated with wind turbine and other large-scale community developments.

Voluntary Participation

Participation in this study is voluntary.

Online Option

For your convenience, we have also created an online version of the survey available at through Western's Qualtrics system. As with the paper questionnaire, the data we receive online will be used only for aggregate analysis and anonymity is one of our highest priorities. If you would rather complete the survey online, please go to the website listed at the top of the previous page and type in the verification code when asked. You will we still be entered into the gift card draw if you choose the online option.

Free Draw Entry - 4 chances for \$100 Gift Card

As a thank-you for your participation you can request to be entered into a free draw. You can enter the draw regardless of whether you complete the questionnaire by mail or online. Winners will receive their choice of a \$100 gift card for Tim Horton's, Winners Superstore, or Canadian Tire. We will draw four of these for the entire study – approximately 2000 people have been asked to participate. Of these, we expect 430 surveys to be returned.

What happens with the data?

The data are entered into a confidential database for anonymous statistical analysis. The analysis aggregates the data, so no identifying information will appear in any publication from the results. We have included an identification code on each survey which tells us which turbine development is closest to you, but we do not link this ID to your name – if you choose to enter the free participant draw – in the analysis or findings.

Contact

If you have any questions about the study, you may contact me, Chad Walker, at *cwalke26@uwo.ca* or 519 661 2111 (ex. 82818) OR the project principle investigator, Jamie Baxter at (519) 661-2111 x81241 or <u>jamie.baxter@uwo.ca</u>. More information about the research project and our related studies can be found at our website, Communities Around Renewable Energy Projects - <u>COAREP.uwo.ca</u>.

If you have questions about your rights as a research participant you may also contact the Office of Research Ethics, The University of Western Ontario at 519-661-3036 or ethics@uwo.ca.

1. Instructions

Each of the sections below will ask for your personal opinion on the wind turbines in your community and wind energy in general. Unless asked otherwise, please check only ONE box per question (row) to indicate how much you agree with each statement. If you don't have a specific opinion, please check the middle box ("neither agree nor disagree") rather than leaving the question blank.

Thank you very much for your participation!

Section A:

For each of the following questions, please indicate how much you agree with the statement. Check ONE in each row.

Part 1: General Energy Issues

		AG	REE	DISAGREE		
		Strongly agree	Somewhat agree	Neither agree nor disagree	Somewhat disagree	Strongly disagree
1.	Electricity production is one of the most important issues my province faces.					
2.	Nuclear power generation poses a serious environmental health threat.					
3.	Fossil fuels (e.g. coal, gas) used for electricity generation in my province pose a serious environmental threat.					
4.	Fossil fuels (e.g. coal, gas) used for electricity generation in my province pose a serious climate change threat.					
5.	Fossil fuels (e.g. coal, gas) used for electricity generation in my province pose threats to our economy .					
6.	Wind energy will help deal with the problem of climate change					

<u>Pa</u>	rt 2: Support for Wind Energy	A.C.	REE		DICA	CDEE
		Strongly agree	Somewhat agree	Neither agree nor disagree	Somewhat disagree	Strongly disagree
7.	I support the existing wind power project in my community .					
8.	I would support building more turbines in my community.					
9.	I support using more wind power to meet Canada's energy needs.					
<u>Pa</u>	rt 2b: General Views on Wind Ener	DISAG	GREE			
		Strongly agree	Somewhat agree	Neither agree nor disagree	Somewhat disagree	Strongly disagree
10.	Wind energy is an environmentally friendly technology.					
11.	In the big picture, wind energy makes sense economically.					
12.	Wind turbines are an unacceptable threat to human health					
13.	Wind turbines are an unacceptable threat to wildlife, including birds and bats.					
14.	Wind power projects lower local property values.					
15.	Wind turbines are visually unappealing.					
16.	Wind turbine noise is unacceptably annoying.					
17.	Those opposed to wind energy are being unreasonable.					
18.	Those supportive of wind energy are being unreasonable.					
Part 3: Community Engagement in Turbine Siting Some questions below only apply to those who lived in the community before the turbine siting process began. Check ONE. YES NO					-	
19.	I lived in this community before the local wind turbine(s) were built.]

For each of the following questions, please indicate how much you agree with the statement. Check **ONE only.**

		AGREE			DISAGREE	
	Please complete questions 23-56 if you lived in the community before the wind turbines were built.	Strongly agree	Somewhat agree	Neither agree nor disagree	Somewhat disagree	Strongly disagree
	Part 3.1: Voicing Concerns					
20.	Overall, I approve of the way the wind energy development was planned and built in my community					
21.	I was provided with enough information on the existing wind power project before it was approved.					
22.	The information provided by the developer on the existing wind power project has always been trustworthy .					
23.	I had ample opportunity to voice concerns about the existing wind power project before it was approved.					
24.	Local residents' concerns about the existing wind power project were adequately dealt with before it was approved.					
25.	I felt encouraged to take part in the planning process for the local wind energy development.					
26.	I feel as though our local council fairly represented the community's views with regards to the wind energy development.					
27.	I highly valued the efforts of our municipality councillors and staff in the wind turbine siting process.					
28.	Turbines were set back further away from homes in some cases when concerns arose.					
	Part 3.2: Timing and Transparency	Strongly agree	Somewhat agree	Neither agree nor disagree	Somewhat disagree	Strongly disagree
29.	Local residents were made adequately aware of the opportunity to participate in the planning process for the local wind project(s).					
30.	The plans relating to the wind turbines were always transparent to local residents.					
31.	I wish there were more opportunities for face-to-face meetings with my local council and other residents prior to lease agreements being signed.					
32.	The wind energy developers in my area					

	were always truthful and respectful with the community about the project.					
33.	There was a general lack of respect for the wind energy developer from the local community.					
34.	The wind energy developer in my area used bullying tactics.					
35.	Overall, participation in the siting process lead to meaningful changes in the siting outcome.					
36.	The wind energy developer seemed to go the " extra mile " in listening to and engaging with the local community.					
	Part 3.3: Decision-making and Expertise	Strongly agree	Somewhat agree	Neither agree nor disagree	Somewhat disagree	Strongly disagree
37.	I felt in control in terms of whether or not the turbine(s) were going to be built in my community.					
38.	Local government should have greater decision-making power in turbine facility siting.					
39.	I approve of the way my local government has handled the community wind power project issue.					
40.	The provincial government should determine if or where turbines are placed in my province.					
41.	My provincial government is qualified to determine where turbines should be built.					
42.	I wish there were more independent, third party experts involved in the meetings and open houses.					
43.	I would like a system where the community decides which experts to invite to public meetings.					
44.	I would like to see the decision about whether or not a community hosts a wind energy development decided through a public referendum/vote.					
45.	Community Liaison or Community Advisory Committees are beneficial in the process of wind energy development.					

Part 3.4: Community Ownership

AC	AGREE			DISAGREE		
Strongly	Strongly Somewhat agree agree		Neither Somewhat			
agree			disagree	disagree		

						disa	gree		
46.	Wind energy development is best when is owned by local communities	n it							
47.	Local residents should be able to inves and share in the profits from local turbines	t in							
48.	I was aware of opportunities to invest of own part of my local project.	or							
49.	The idea of investing in local turbines offensive to me.	is							
	Part 3.5: Leases								
				AGR	EE			DIS	AGREE
			Strong agree		Somewha agree	agre	ther ee nor gree	Somewhat disagree	Strongly disagree
50.	Landowners should have the right to le their land to any kind of legal development they choose.	ease							
51.	Land leases for turbines on private land should not be signed before the community is provided details about the project.								
52.	Legal professionals should be made available to local residents prior to signing of lease agreements.								
53.	Landowners tend to sign turbine lease without adequate knowledge of lease details.	S							
<u>Par</u>	rt 5: Information		AGI	REE				DISAGRI	EE
			ngly	Some	ewhat ree	Neithe agree n disagre	or	Somewhat disagree	Strongly disagree
54.	There is a lack of independent, unbiased information about the true impacts of wind energy developments.	[]	Г					
55.	I am unsure about the 'right' or relevant questions to ask about wind turbines.	[_	С					
56.	Information about the true impacts of wind energy development needs to be put into plainer language.	[]						

57.	Local government lacks the knowledge and resources needed to make good decisions about wind energy.						
58.	Developers need to be better educated about the true impacts of wind energy.						
59.	Local residents who SUPPORT wind development need to be better educated about the disadvantages of wind energy.		С				
60.	Local residents who OPPOSE wind development need to be better educated about the advantages of wind energy.		С				
61.	There is disagreement amongst political parties in my province on the issue of wind energy development.			1			
Part 5: Benefits and Fairness							
Pa	rt 5: Benefits and Fairness		AGRI	EE		DISA	GREE
<u>Pa</u>	rt 5: Benefits and Fairness			EE Somewhat agree	Neither agree nor disagree	DISAC Somewhat disagree	GREE Strongly disagree
<u>Par</u>	The local wind energy development has brought with it adequate economic benefits to my community.	aş	ongly S	Somewhat	agree nor	Somewhat	Strongly
	The local wind energy development has brought with it adequate economic	aş S	ongly S	Somewhat agree	agree nor disagree	Somewhat	Strongly disagree
62.	The local wind energy development has brought with it adequate economic benefits to my community. The positive impacts of the existing wind power project are distributed fair within the local community. Overall, the existing wind power project has had more positive impacts than negative impacts .	aş S ly	ongly Sgree	Somewhat agree	agree nor disagree	Somewhat disagree	Strongly disagree
62.	The local wind energy development has brought with it adequate economic benefits to my community. The positive impacts of the existing wind power project are distributed fair within the local community. Overall, the existing wind power project has had more positive impacts than	aş S ly	ongly Sgree	Somewhat agree	agree nor disagree	Somewhat disagree	Strongly disagree

More financial benefits should be given to

A fund should be established to pay fair market value to households who must

move because they cannot tolerate the

Residents living close to wind turbines should receive discounts on their

residents living close to turbines.

negative impacts of turbines.

electricity.

67.

68.

69.

70.	The local wind energy project pays sufficient taxes to the municipality					
71.	It is fair that financial payments are only given to the landowner who has a turbine(s) on their land.					
72.	The developer of the local wind development is from	The local area	The province	In Canada	Outside of Canada	Do not know
73.	I would most prefer that the wind developer was from. (check one only)	The local area	The province	In Canada □	Outside of Canada	Do not know

Part 6: Stakeholder Concern/Trust

For each group listed below, please respond to this statement:

	A	AG	AGREE			REE
74.	"This stakeholder has done an excellent job listening to individual concerns regarding the wind development in my community"	Strongly agree	Somewhat agree	Neither agree nor disagree	Somewhat disagree	Strongly disagree
1)	Local government					
2)	Provincial government					
3)	Wind developer					
4)	Local wind turbine opposition groups					
5)	Local wind turbine support groups					
6)	Neighbours and friends					
7)	Family					

		AG	REE		DISAGREE	
	"I trust this group to make fair	Strongly	Somewhat	Neither	Somewhat	Strongly
75.	decisions that may affect my	agree	agree	agree nor	disagree	disagree

	community regarding wind energy development"			disagree					
1)	Local government								
2)	Provincial government								
3)	Wind developer								
4)	Local wind turbine opposition groups								
5)	Local wind turbine support groups								
6)	Neighbours and/or colleagues								
7)	Friends and/or family								
<u>Par</u>	Part 7. Actions Related to Community Wind Turbines								
		Strongly agree	AGREE Somewhat agree	Neither agree nor disagree	DISAG Somewhat disagree	Strongly disagree			
76.	I have been an active opponent of wind energy in my community.								
77.	I have been actively in favour of wind energy in my community.	′							
		Frequently	A few times	Once	Nev	er			
78.	I have physically protested against wind turbines in my community (e.g., picket, spoke publicly at a meeting, spoke to the media).								
<i>7</i> 9·	I have written to government or the media against wind turbines in my community.								
8o	I have signed a petition against wind turbines in my community.								
81.	I have written online comments against wind turbines in my community.								
82.	I have physically demonstrated in favour of wind turbines in my community (e.g., picket, spoke publicly at a meeting, spoke to the media).								
83.	I have written to government or the media in favour of wind turbines in my community.								

0,	I have signed a petition in f	avour of wind	Ь			-	
84.	turbines in my community.						_
	I have written ONLINE com	nments in		,	ı	į	
85.	favour of wind turbines in	my					
	community.		1	I	I		
For e	tion B. ach of the following question t 8: Personal Impacts	-	e how much yo	ou agree with the	following	statemeni	ts. Check ONE.
	<u> </u>	_	AGREE			DI	SAGREE
			Strongly agree	Somewhat a	Neither gree nor disagree	Somewh disagre	01
86.	I have experienced negative due to the wind turbines.	e health effects					
87.	The value of my property a has decreased due to the w						
88.	I find the natural landscap community less appealing	=	П			П	
	turbines.						
89.	I enjoy spending time outd the wind turbines.						
90.	I have thought about moving from the wind turbines.						
91.	I invite guests over to my h frequently because of the w	vind turbines.					
92.	The existing wind power processed unacceptable lever conflict.		У				
	tion C: Demographic		uestions. Chec	ck ONE.			
93.	Gender	\square M	□F	☐ Prefe	er not to sa	y	
94.	Age		□ □ □ -34 35-49	□ 50-65	□ 66+		☐ Prefer
95.	Household size (# of people)	1				<u> </u>	Prefer not to
96.	In the last provincial election I voted (or would have voted) for the party.	□ NDP	□ Liberal	Progressive Conservative	Other_		□ Prefer not to say
97.	My political affiliation most closely aligns with the Party of my	□ NDP	□ Liberal	Progressive Conservative	Other_		□ Prefer not to say

	province.						
98.	Number of years living in community	(Please write)					
99.	Highest level of education attained.	 □ No certificate, diploma or degree □ High school □ College □ University degree □ Graduate degree □ Prefer not to say 					
100.	Annual family income, after-tax (Canadian dollars)	□ Under \$25,000	□ \$25,000)-39,999 [□ \$40,000-54,999	□ \$55,000- 69,999	
		□ \$70,00 109,999		□ \$110,000 o	r more	☐ Prefer not to say	
101.	Housing situation	☐ Short- term Rental	☐ Long-term Rental	□ F	Home owned	Prefer not to say	
102.	Is a wind turbine located on your property?	☐ Yes	□ No	□ Do	n't know/Prefer no	t to say	
103.	If you answered YES, do you have serious regrets about signing the lease to have a turbine(s) on your land?		□ No	□ Do.	☐ Don't know/Prefer not to say		
104.	Are you currently, or were you ever, employed by the wind power project in your community?	□ Yes	□ No	□ Do	n't know/Prefer no	t to say	
105.	Has a member of your family received financial compensation (e.g., lease payments, employment) from an existing wind power project?	□ Yes	□ No	□ Do.	n't know/Prefer no	t to say	
106.	4 gift cards.	□ Yes Gift Card if am picked in the draw (choose 1): Superstore □ Canadian Tire □ Tim Hortons □ Winners □					
107.	Approximate distance to closet turbine	□ □ <550m 550m-1ŀ	□ km 1-2	□ km 2-5km	n 5km+ U1	nknown/prefer	

						not to say
108.	Numbers of turbines seen from my home.	0	1	□ 2	3	Other Unknown/prefer not to say
109.	Is the address to which this survey was delivered your year-round home?	□ Yes		□ No		□ Prefer not to say
110.	I have or will shortly have turbines on my property.	□ Yes	res □ No		10	□ Prefer not to say
111.	I am an elected municipal official.	□ Yes	□ No		lo	□ Prefer not to say

SECTION C - Anything to Add?

112. In the space below, please elaborate your thoughts on any of the responses above or the topic of wind energy in general: