2019 HOUSE ENERGY AND NATURAL RESOURCES

HCR 3048

2019 HOUSE STANDING COMMITTEE MINUTES

Energy and Natural Resources Committee

Coteau A Room, State Capitol

HCR 3048 2/28/2019 32959

☐ Subcommittee
☐ Conference Committee

, ,	Committee Clerk, Kathleen Davis	By: Elaine Stromme	
-----	---------------------------------	--------------------	--

Explanation or reason for introduction of bill/resolution:

To consider studying the feasibility and desirability of establishing a wind reclamation fund

Minutes: Attachments 1,2

Chairman Porter: Opened the hearing on HCR 3048.

Rep. Magrum: presented (Attachment 1,2). Request for a study for the reclamation of wind farms. Who is responsible for the wind farms? To reclaim these turbines, it costs \$150,000.00 and up to \$200,000.00 for each one. Who is going to pay for that? Asking for a Do Pass on HCR 3048.

Rep Bosch: Are there many abandoned wind turbines?

8:00 **Rep. Magrum**: We have 7 different wind farms in my district. We have over 1500 wind turbines in the state right now.

Rep Bosch: But none that are in an abandon state?

Rep. Magrum: No, On the Internet it says there is 14,000 abandoned turbines in the United States.

Rep Heinert: From 2017 forward they have to put a surety bond on every wind tower correct?

Rep. Magrum: Yes, but before that they didn't have to. I'm learning too. There is a 1300' danger zone around each of these. The wind farm owners have been putting these too close to non-participating landowners. Wind farms are only good for 25 years or less.

Chairman Porter: Further questions? Further support?

Kerry Trainer, Association of Counties: We support the study of this issue. It takes a number of years to get the balance right, you don't want to overburden the industry with reclamation costs, but make sure that local government as well as the private citizens are protected.

House Energy and Natural Resources Committee HCR 3048 2/28/2019 Page 2

14:00

Chairman Porter: All the revenue off of the wind conversion facility is going to the county and to the school district. Should it be the states responsibility to establish a reclamation fund? Shouldn't the counties take care of that?

Kerry Trainer: As you are probably all aware that the senate passed a bill that would change that quite dramatically. It says that 1/3 of all that revenue would flow to the state in the future. In the new structures as well as existing structures as it reaches it's 20-year life. It would be challenging for counties to develop a reclamation plan. I don't know if we could develop a structure to handle all wind farms on an equal basis. Right now a bonding structure works well but is it too high or too low, we don't know.

Chairman Porter: Inside of the insurance reserve fund couldn't you have counties pay into the insurance reserve fund to take care of insurance towards the possibility of a reclamation project. In the end it's an insurance fund, not a separate pot of money just sitting there.

Kerry Trainer: It's whether you put the money up front or over time. There is a lot of local government entities that receive the tax from the local wind farms. How do you make that equitable?

Chairman Porter: further support? Opposition?

Commissioner Christman," Is it the state's responsibility to clean up on something we've never received any money on? "

18:06

Randy Christman, Public Service Commission (PSC): We have new rules that were effective as of July 1, 2017. Those already sited under the old system, they just need to do their plan after 10 yrs. of operation. What changed, the plan needs to come through a ND licensed engineer, and it needs to be accompanied by a bond or some kind of a guarantee to cover costs to carry out the plan. In comparison with coal, we have a whole staff of people. We don't have that with wind. We work with existing staff when they have free time. There are no wind farms non-operational but I cannot speak to individual turbines. Under the new plan, they have to file an annual plan with us. In that we'll see if there are any non-operational, and they will report to us what they're going to do with it, dismantle, etc.

Rep. Anderson: Where's the oldest wind farm in ND?

Randy Christman: Maybe the one out at Assumption Abby at Richardton probably started in the late1980's. The wind farms started in about 2005. The one East of Valley City is probably the oldest wind farm of the modern era.

23:00

Rep. Keiser: Do we need this study?

House Energy and Natural Resources Committee HCR 3048 2/28/2019 Page 3

Randy Christman: If you want to dig in to it more and see, the companies are pretty good about our rule making process. We work together. Any study you have you stand to gain information. In the nation we have by far the best reclamation plan.

Rep. Keiser: Moved a Do Pass on HCR 3048

Rep. Eidson: Seconded

A roll call vote was taken: Yes - 11 No - 1 Absent - 2

Motion carried on HCR 3048

Rep. Lefor will carry HCR 3048

Chairman Porter: The hearing is closed.

Date:	2-0	28-	9
Roll Call Vote #:			

		☐ Sul	bcomm	ittee		
Amendment LC# or	Description:					
Recommendation:	☐ Adopt Amend ☐ Do Pass ☐ ☐ As Amended ☐ Place on Cor	□ Do No		☐ Without Committee Re ☐ Rerefer to Appropriation		atio
Other Actions:	☐ Reconsider					
	Kep Kesise	Yes	Se	Representatives	Yes	No
Chairman Porter		V		Rep. Lefor	V	3 =
Vice Chairman D	amschen	V		Rep. Marschall	V	
Rep. Anderson		NB AND		Rep. Roers Jones	AB	
		A L				
Rep Bosch		AND	-	Rep. Ruby		
Rep Bosch Rep. Devlin			V	Rep. Ruby Rep. Zubke	V	
Rep Bosch Rep. Devlin Rep. Heinert		AND	V	Rep. Zubke	V	
Rep Bosch Rep. Devlin			V	Rep. Zubke Rep. Mitskog	V	
Rep Bosch Rep. Devlin Rep. Heinert			V	Rep. Zubke	V	
Rep Bosch Rep. Devlin Rep. Heinert			<i>V</i>	Rep. Zubke Rep. Mitskog		
Rep Bosch Rep. Devlin Rep. Heinert			V	Rep. Zubke Rep. Mitskog		
Rep Bosch Rep. Devlin Rep. Heinert			V	Rep. Zubke Rep. Mitskog		

If the vote is on an amendment, briefly indicate intent:

Motion carried

REPORT OF STANDING COMMITTEE

Module ID: h_stcomrep_35_005

Carrier: Lefor

HCR 3048: Energy and Natural Resources Committee (Rep. Porter, Chairman) recommends DO PASS (11 YEAS, 1 NAYS, 2 ABSENT AND NOT VOTING). HCR 3048 was placed on the Eleventh order on the calendar.

(1) DESK (3) COMMITTEE Page 1 h_stcomrep_35_005

2019 SENATE ENERGY AND NATURAL RESOURCES HCR 3048

2019 SENATE STANDING COMMITTEE MINUTES

Energy and Natural Resources Committee

Fort Lincoln Room, State Capitol

HCR 3048 3/15/2019 Job Number 33806

☐ Subcomn☐ Conference C		
Committee Clerk: Marne Johnson		
Explanation or reason for introduction of bill/r	esolution:	
A concurrent resolution directing the Legislative Management to consider studying the feasibility and desirability of establishing a wind reclamation fund.		
Minutes:	6 Attachments	

Chair Unruh: Opened the hearing.

Representative Jeff Magrum, District 28 (0:15-9:35) Introduced the bill, please see attachment #1 for testimony; #2 for pages out of the safety manual for wind turbine; #3 for current zoning illustrations; and #4 for attorneys appointed to NDIRF.

Senator Piepkorn: Basically you hope the study will answer these questions?

Representative Magrum: Yes.

No opposition testimony.

John Schuh, legal counsel, Public Service Commission (10:40-12:15) Neutral Agency testimony, please see attachment #5 for testimony and #6 for wind decommissioning rules and submitting rules to attorney general.

Chair Unruh: Closed the hearing.

2019 SENATE STANDING COMMITTEE MINUTES

Energy and Natural Resources Committee

Fort Lincoln Room, State Capitol

HCR 3048 3/28/2019 Job Number 34340

	□ Subcommittee	
□С	onference Committe	е

Committee Clerk: Marne Johnson

Explanation or reason for introduction of bill/resolution:

A concurrent resolution directing the Legislative Management to consider studying the feasibility and desirability of establishing a wind reclamation fund and whether the statutorily required minimum wind turbine setback distances provide adequate protections to nonparticipating landowners and their property.

Minutes: 1 attachment.	

Chair Unruh: Opened committee work.

Senator Schaible: Passed out amendment, **please see attachment #1**. It adds wind turbine setbacks and considering the noise to the study. It gives two different directions to the study, it was a request from the prime sponsor. It further expands the study scope of wind turbines and wind turbine setbacks.

Senator Schaible: I move to adopt the amendment ending in .02001.

Senator Piepkorn: I second.

A voice vote was taken.

Motion carries.

Senator Schaible: I move a Do Pass as amended.

Senator Piepkorn: I second.

A roll call vote was taken. Motion passes 6-0-0.

Senator Piepkorn will carry.

Chair Unruh: Closed committee work.

Prepared by the Legislative Council staff for Representative Magrum March 20, 2019

4138 (35)

PROPOSED AMENDMENTS TO HOUSE CONCURRENT RESOLUTION NO. 3048

- Page 1, line 2, after "fund" insert "and whether the statutorily required minimum wind turbine setback distances provide adequate protections to nonparticipating landowners and their property"
- Page 1, line 20, after the semicolon insert "and

WHEREAS, minimum wind turbine setback distance requirements are codified safety measures enacted to protect the land, property, and health of nonparticipating landowners; and

WHEREAS, noise, shadow flickering, ice fall, and turbine failure, produce risks to a nonparticipating landowner's land, property, and health which can be reasonably mitigated, minimized, or eliminated by requiring effective and feasible setback distances;"

Page 1, line 24, after "fund" insert "and whether the statutorily required minimum wind turbine setback distances provide adequate protections to nonparticipating landowners and their property"

Renumber accordingly

Date:	3/28
Roll Call Vote #:	

Senate Energy	and Natural Resou	ırces			Com	mittee
		□ Su	bcomm	ittee		
Amendment LC# or	Description:	14	1. 31	31.02001		
Recommendation: Other Actions:] Do No		☐ Without Committee Red☐ Rerefer to Appropriation	ns	dation
Motion Made By _				econded By <u>Sew.</u>	iep K	
	ators	Yes	No	Senators	Yes	No
Senator Jessica l	Jnruh			Senator Merrill Piepkorn		
Senator Curt Kre	un					
Senator Donald S	Schaible				100	
Senator Dwight C	Cook					
Senator Jim Roer	r'S					
Total (Yes) Absent Floor Assignment						

Voice Vote Motion Carries

If the vote is on an amendment, briefly indicate intent:

Date:	3/28
Roll Call Vote #:	2

2019 SENATE STANDING COMMITTEE ROLL CALL VOTES BILL/RESOLUTION NO. 3048

Subcommittee Amendment LC# or Description:	Senate Energy	and Natural Resou	rces			Com	mittee
Recommendation:			□ Su	bcomm	ittee		
A Do Pass Do Not Pass Without Committee Recommendation Rerefer to Appropriations Reconsider Reconsider Motion Made By Senators Senators Yes No Senators Yes No Senator Merrill Plepkorn Senator Curt Kreun Senator Donald Schaible Senator Dwight Cook Senator Jim Roers Reconsider Senator Jim Roers Senator	Amendment LC# or	Description:		19.3	131. 02001		
Senators Yes No Senators Yes No Senators Senator Jessica Unruh Senator Curt Kreun Senator Donald Schaible Senator Dwight Cook Senator Jim Roers Total (Yes)		✓ Do Pass ☐ ✓ As Amended ☐ Place on Cons	Do No		☐ Rerefer to Appropriation		lation
Senator Jessica Unruh Senator Curt Kreun Senator Donald Schaible Senator Dwight Cook Senator Jim Roers Total (Yes)	Motion Made By	Sen. Scha	ible	Se	conded By Sen. Pie	ep/201	<u>n</u>
Senator Curt Kreun Senator Donald Schaible Senator Dwight Cook Senator Jim Roers Total (Yes)	Sen	ators	Yes	No	Senators	Yes	No
Senator Donald Schaible Senator Dwight Cook Senator Jim Roers Total (Yes)	Senator Jessica	Unruh	K		Senator Merrill Piepkorn	X	
Senator Dwight Cook Senator Jim Roers Total (Yes)	Senator Curt Kre	eun	X				
Senator Jim Roers Total (Yes)	Senator Donald	Schaible	K	1			
Senator Jim Roers Total (Yes)	Senator Dwight (Cook	K				
Total (Yes)	Senator Jim Roe	rs	X				
Absent		√ .					
	· · -	6		No	<i>D</i>		
			<u> </u>	211	Pienkin		

If the vote is on an amendment, briefly indicate intent:

Module ID: s_stcomrep_55_017 Carrier: Piepkorn Insert LC: 19.3131.02001 Title: 03000

REPORT OF STANDING COMMITTEE

- HCR 3048: Energy and Natural Resources Committee (Sen. Unruh, Chairman) recommends AMENDMENTS AS FOLLOWS and when so amended, recommends DO PASS (6 YEAS, 0 NAYS, 0 ABSENT AND NOT VOTING). HCR 3048 was placed on the Sixth order on the calendar.
- Page 1, line 2, after "fund" insert "and whether the statutorily required minimum wind turbine setback distances provide adequate protections to nonparticipating landowners and their property"
- Page 1, line 20, after the semicolon insert "and
 - **WHEREAS**, minimum wind turbine setback distance requirements are codified safety measures enacted to protect the land, property, and health of nonparticipating landowners; and
 - **WHEREAS**, noise, shadow flickering, ice fall, and turbine failure, produce risks to a nonparticipating landowner's land, property, and health which can be reasonably mitigated, minimized, or eliminated by requiring effective and feasible setback distances;"
- Page 1, line 24, after "fund" insert "and whether the statutorily required minimum wind turbine setback distances provide adequate protections to nonparticipating landowners and their property"

Renumber accordingly

(1) DESK (3) COMMITTEE Page 1 s_stcomrep_55_017

2019 TESTIMONY

HCR 3048

NORTH DAKOTA HOUSE OF REPRESENTATIVES



STATE CAPITOL 600 EAST BOULEVARD BISMARCK, ND 58505-0360



COMMITTEES:

Judiciary

Political Subdivisions

Representative Jeffery J. Magrum District 28 P.O. Box 467 Hazelton, ND 58544-0467

C: 701-321-2224 jmagrum@nd.gov

Feb.28,2019

Good morning Chairman and Top Notch committee members

For the record I am Jeff Magrum representing Dist. 28 which is south central ND from Desert road east of Bismarck to Ellendale. District 28 includes all or parts of six counties.

I am before your committee today to introduce House Concurrent Resolution 3048.

HCR3048 is a request for a study to create a reclamation fund for decommissioning of wind farms.

Currently there is no reclamation fund in place to access if a wind farm or (Energy Conversion Facility) files inkruptcy or just walks away. As I understand it wind farms in operation or sited before 2017 do not need a bond for ten years unless they repower. A class A surety bond or financial assurance through a corp.guarantee is required after 2017 for reclamation.

I am certainly not here to criticize what the state has in place but to ask questions in the hope of making sure all of our bases are covered so to speak.

With all of the wind farms operating ,being built or proposed. The question comes up often as to what will we do if the money run's out to reclaim these properties. Since the wind farms are being built with federal subsidies and tax credits will there be federal programs available later? People are concered that landowners or taxpayers will be responsible to reclaim these lands.

A concern is if the wind farm does fail. Who keeps the lights on? Who checks on the blades and safety of the turbines when Farmers and Ranchers are working around them? Don't bonds take a while to collect on?

Will the Health Dept. force the counties to get involved in the reclamation process? If the local government gets involved, where can they access funds? Do the counties assess the costs to the property owners?

Perhaps the PSC handles the reclamation. Do they have the staff and access to funds? Estimates to reclaim a wind turbine is \$150,000 upwards to \$200,000.

Another concern is that wind developers are knowingly building to close to nonparticipating landowners property.

is is putting a danger zone on their land without compensation and most likely devaluing their property.

With the defeat of HB1167 last week we are no closer to addressing this issue. Can the counties get in trouble for issuing permits if they know about the encumbrance on nonparticipating landowners and if so could they



HCR 3048

access these funds? I spoke with NDIRF and they said that they are responsible to back up the counties in Attachment 1

Attachment 1

injuries a spoke with NDIRF and they said that they are responsible to back up the counties in Attachment 1

injuries a spoke with NDIRF and they said that they are responsible to back up the counties in Attachment 1

injuries a spoke with NDIRF and they said that they are responsible to back up the counties in Attachment 1

injuries a spoke with NDIRF and they said that they are responsible to back up the counties in Attachment 1

injuries a spoke with NDIRF and they said that they are responsible to back up the counties in Attachment 1

injuries a spoke with NDIRF and they said that they are responsible to back up the counties in Attachment 1

injuries a spoke with NDIRF and they said that they are responsible to back up the counties in Attachment 1

injuries a spoke with NDIRF and they said that they are responsible to back up the counties in Attachment 1

injuries a spoke with NDIRF and they said that they are responsible to back up the counties in Attachment 1

injuries a spoke with NDIRF and they said that they are responsible to back up the counties in Attachment 1

injuries a spoke with NDIRF and they said that they are responsible to back up the Attachment 1

injuries a spoke with NDIRF and they said that they are responsible to back up the Attachment 1

injuries a spoke with NDIRF and they said that they are responsible to back up the Attachment 1

injuries a spoke with NDIRF and they said that they are responsible to back up the Attachment 1

injuries a spoke with NDIRF and they said that they are responsible to back up the Attachment 1

injuries a spoke with NDIRF and they said that they are responsible to back up th

Another question is how we build up the fund? Perhaps we could have the wind developers put \$200,000 in a account managed by the State Teasurer. Then the developer would not have to bond at all. Interest on the fund would hopefully keep up with inflation. When the wind farm is reclaimed the wind farm owner could have their money back. Or perhaps a yearly tax to put into a fund.

As you can see I have a lot more questions than answers. That is why I am here before you to ask for a due pass on HCR3048.

Thanks so much and I stand for questions.

HB1167

Item no.: 960314.R5 Issued by: Technology Type: MAN

Safety Regulations for Operators and Technicians V90 – 3.0MW/V100 – 2.75MW HCR 3048
Date 2006-09-11 2 28.19
Classtachment 2
Page 3 of 32

1. Introduction

A turbine connected to the grid implies certain elements of danger if it is handled without exercising proper caution.

For safety reasons, at least two persons have to be present during a work procedure.

The work must be properly carried out in accordance with this manual and other related manuals. This implies, among other things that personnel must be instructed in and familiar with relevant parts of this manual.

Furthermore, personnel must be familiar with the contents of the "Substances and Materials" regulations.

Caution must especially be exerted in situations where measurement and work is done in junction boxes that can be connected to power.

Consequently the following safety regulations must be observed.

2. Stay and Traffic by the Turbine

Do not stay within a radius of 400m (1300ft) from the turbine unless it is necessary. If you have to inspect an operating turbine from the ground, do not stay under the rotor plane but observe the rotor from the front.

Make sure that children do not stay by or play nearby the turbine. If necessary, fence the foundation. The access door to the turbine must be locked in order to prevent unauthorised persons from stopping or damaging the turbine due to mal-operation of the controller.

Address and Phone Number of the Turbine

Note the address and the access road of the turbine in case an emergency situation should arise. The address of the turbine can often be found in the service reports in the ring binders next to the ground controller. Find the phone number of the local life-saving service.





Date 2006-09-11 Class: II HCR 3048 2.28.19

Page 17 of 32Att chment 2

16. Precautions in Case of Fire

At any type of fire in or near a turbine, the power to the turbine must always be disconnected at the main high voltage circuit breaker. To disconnect supply, switch off by pushing the red button (marked TRIP F60) on the nacelle controller in the nacelle. In the tower bottom the power supply is switched off by pushing the red button situated on the breaker in the high voltage section. If it is impossible to get to the main circuit breaker, contact the power station for a disconnection of the grid.

In case of a fire during an uncontrolled operation, do under no circumstances approach the turbine. Evacuate and rope off the turbine in a radius of minimum 400m (1300ft). In case of a fire in a non-operating turbine, the fire can be put out by means of a powder extinguisher.



Use of a CO2 extinguisher in a closed room can result in lack of oxygen.

17. Directions for Use of Rotor Lock

To avoid accidents and near-accidents, which can be prevented via mechanical locking of the rotor, the following guidelines must be followed:

IN GENERAL:

Besides following the requirements listed in this document, it is important also to use ones common sense and assess the specific situations.

When the wind speed exceeds the values of the mechanical design of the locking system, it is not allowed to work in a turbine as listed below.

A technical solution must be prepared before starting work on a turbine that cannot be locked mechanically.

The work listed below must not be carried out before the turbine has been mechanically locked.

Mechanical rotor locking must be used in connection with:

- Hub and blades:
 - a. stay in hub and nose cone
 - b. stay on/near the blade is not allowed unless both the rotor and the blade has been locked
- 2. Work on gearbox and gear oil system if this involves:
 - a. disassembly and adjustment of mechanical parts
 - b. tensioning
 - c. activation of shrink disc
 - d. internal inspection unless it is a visual inspection
- 3. Work on coupling and braking system if this involves:
 - a. disassembly and adjustment of mechanical parts

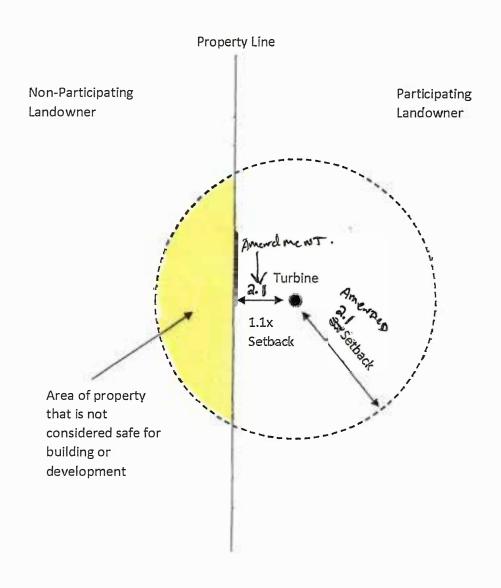




Current Zoning

HCR 3048 2.28.19 Attachment 2

1.1x Height of Turbine Setback from Property Line



Proposed Zoning

Non-Participating

Landowner

3x Height of Turbine Setback from Property Line

Property Line Participating Landowner Turbine All Setback area is now on participating property.

NORTH DAKOTA HOUSE OF REPRESENTATIVES

NORT

STATE CAPITOL 600 EAST BOULEVARD BISMARCK, ND 58505-0360

COMMITTEES:
Judiciary
Political Subdivisions

Representative Jeffery J. Magrum
District 28
P.O. Box 467
Hazelton, ND 58544-0467

C: 701-321-2224 jmagrum@nd.gov

March 15, 2019

Good morning Chairman and committee members

For the record I am Jeff Magrum representing Dist. 28 which is south central ND from Desert road east of Bismarck to Ellendale. District 28 includes all or parts of six counties.

I am before your committee today to introduce House Concurrent Resolution 3048.

HCR3048 is a request for a study to create a reclamation fund for decommissioning of wind farms.

Currently there is no reclamation fund in place to access if a Wind Farm or Industrial Energy Conversion Facility siles bankruptcy or just walks away. As I understand it Industrial Energy Conversion Facilities in operation or ed before 2017 do not need a bond for ten years unless they repower. A class A surety bond or financial assurance through a corporate guarantee is required after 2017 for reclamation.

I am certainly not here to criticize what the state has in place but to ask questions in the hope of making sure all of our bases are covered so to speak.

With all of the Industrial Energy Conversion facilities operating, being built or proposed. The question comes up often as to what will we do if the money run's out to reclaim these properties? Since the Industrial Energy Conversion facilities are being built with federal subsidies and tax credits will there be federal programs available later? People are concerned that landowners or taxpayers will be responsible to reclaim these lands.

A concern is if the wind farm does fail. Who keeps the lights on? Who checks on the blades and safety of the turbines when Farmers and Ranchers are working around them? Don't bonds take a while to collect on? Will the Health Dept. force the counties to get involved in the reclamation process? If the local government gets involved, where can they access funds? Do the counties assess the costs to the property owners? Perhaps the PSC handles the reclamation. Do they have the staff and access to funds? Estimates to reclaim a wind turbine is \$150,000 upwards to \$200,000.

Another concern is that wind developers are knowingly building to close to nonparticipating landowners property.

This is putting a danger zone on their land without compensation and most likely devaluing their property.

th the defeat of HB1167 recently we are no closer to addressing this issue. Can the counties get in trouble for issuing permits if they know about the encumbrance on nonparticipating landowners and if so could they access

eimburse NDIRF in cases like this otherwise our premiums are going to get extremely high.

3.15.19

these funds? I spoke with NDIRF and they said that they are responsible to back up the counties in any litigation concerning permits. Recently the NDIRF has had to get involved in the PNE Wind litigation with Burleigh county the Burleigh-Emmons proposed Industrial Energy Conversion Facility. I wonder if a reclamation fund could

#1 pg.z

Another question is how we build up the fund? Perhaps we could have the wind developers put \$200,000 in a account managed by the State Treasurer. Then the developer would not have to bond at all. Interest on the fund would hopefully keep up with inflation. When the wind farm is reclaimed the wind farm owner could have their money back. Or perhaps a yearly tax to put into a fund.

As you can see I have a lot more questions than answers. That is why I am here before you to ask for a due pass on HCR3048.

Thanks so much and I stand for questions.

HB1161

Item no.: 960314.R5 Issued by: Technology Type: MAN

Safety Regulations for Operators and Technicians V90 – 3.0MW/V100 – 2.75MW Date 2006-09-11 Class: II Page 3 of 32 3.15.19 \$\frac{1}{2} \text{Pg.}

1. Introduction

A turbine connected to the grid implies certain elements of danger if it is handled without exercising proper caution.

For safety reasons, at least two persons have to be present during a work procedure.

The work must be properly carried out in accordance with this manual and other related manuals. This implies, among other things that personnel must be instructed in and familiar with relevant parts of this manual.

Furthermore, personnel must be familiar with the contents of the "Substances and Materials" regulations.

Caution must especially be exerted in situations where measurement and work is done in junction boxes that can be connected to power.

Consequently the following safety regulations must be observed.

Stay and Traffic by the Turbine

Do not stay within a radius of 400m (1300ft) from the turbine unless it is necessary. If you have to inspect an operating turbine from the ground, do not stay under the rotor plane but observe the rotor from the front.

Make sure that children do not stay by or play nearby the turbine. If necessary, fence the foundation. The access door to the turbine must be locked in order to prevent unauthorised persons from stopping or damaging the turbine due to mal-operation of the controller.

Address and Phone Number of the Turbine

Note the address and the access road of the turbine in case an emergency situation should arise. The address of the turbine can often be found in the service reports in the ring binders next to the ground controller. Find the phone number of the local life-saving service.



Date 2006-09-11 Class: II Page 17 of 32 tch 3048 3.15.19 #2 Pg.2

16. Precautions in Case of Fire

At any type of fire in or near a turbine, the power to the turbine must always be disconnected at the main high voltage circuit breaker. To disconnect supply, switch off by pushing the red button (marked TRIP F60) on the nacelle controller in the nacelle. In the tower bottom the power supply is switched off by pushing the red button situated on the breaker in the high voltage section. If it is impossible to get to the main circuit breaker, contact the power station for a disconnection of the grid.

In case of a fire during an uncontrolled operation, do under no circumstances approach the turbine. Evacuate and rope off the turbine in a radius of minimum 400m (1300ft). In case of a fire in a non-operating turbine, the fire can be put out by means of a powder extinguisher.

A CAUTION

Use of a CO2 extinguisher in a closed room can result in lack of oxygen.

17. Directions for Use of Rotor Lock

To avoid accidents and near-accidents, which can be prevented via mechanical locking of the rotor, the following guidelines must be followed:

IN GENERAL:

Besides following the requirements listed in this document, it is important also to use ones common sense and assess the specific situations.

When the wind speed exceeds the values of the mechanical design of the locking system, it is not allowed to work in a turbine as listed below.

A technical solution must be prepared before starting work on a turbine that cannot be locked mechanically.

The work listed below must not be carried out before the turbine has been mechanically locked.

Mechanical rotor locking must be used in connection with:

- 1. Hub and blades:
 - a. stay in hub and nose cone
 - b. stay on/near the blade is not allowed unless both the rotor and the blade has been locked
- Work on gearbox and gear oil system if this involves:
 - a. disassembly and adjustment of mechanical parts
 - b. tensionina
 - c. activation of shrink disc
 - d. internal inspection unless it is a visual inspection
- Work on coupling and braking system if this involves:
 - a. disassembly and adjustment of mechanical parts

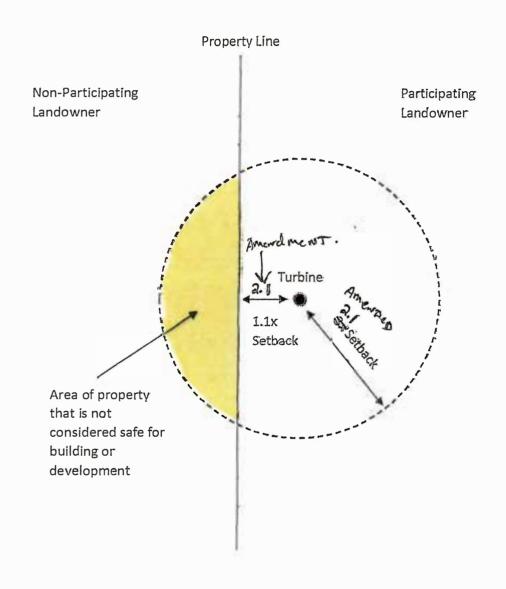


, 0 110 .

Current Zoning

HCR 3048 3.15.19 #3 PG.1

1.1x Height of Turbine Setback from Property Line



Non-Participating

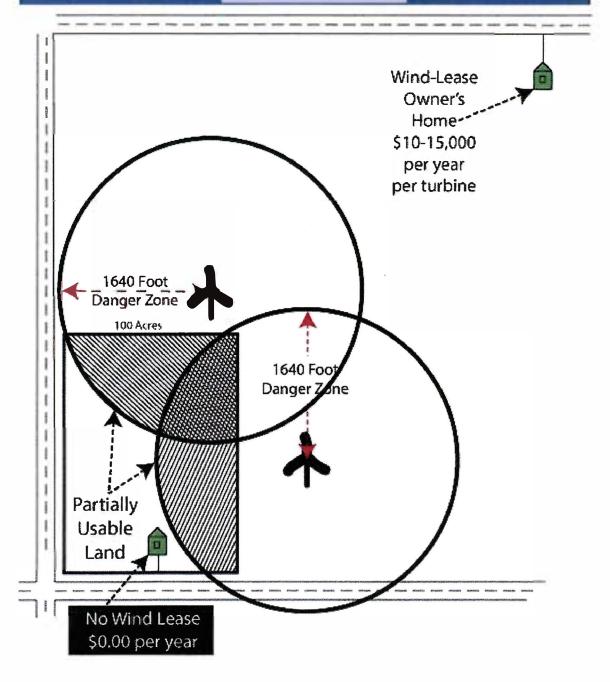
Landowner

3x Height of Turbine Setback from Property Line

Property Line Participating Landowner Turbine All Setback area is now on participating property.

Trespass Zoning

The non-lease holder of a wind contract gets partial use of his land after being forced to "donate" his land to his wind-lease neighbor, without receiving compensation from anyone.



APPOINTMENT OF BURLEIGH COUNTY SPECIAL ASSISTANT STATE'S ATTORNEY

Burleigh County, North Dakota ("County") is a member of the North Dakota Insurance Reserve Fund ("NDIRF") pursuant to a Liability Memorandum of Coverage with an effective date of July 1, 2018.

The Memorandum of Coverage provides for certain conditions, rights and duties between the County and the NDIRF in the event of a covered claim.

Attorneys Mitch Armstrong, and Sarah Wall of Smith Porsborg Schweigert Armstrong Moldenhauer and Smith, Bismarck, North Dakota have been retained by the NDIRF to represent Burleigh County under the terms of the NDIRF Memorandum of Coverage, in regards to a Notice of Appeal filed by Pure New Energy against Burleigh County.

Mitch Armstrong and Sarah Wall are hereby appointed as Burleigh County Special Assistant State's Attorneys for so long as the NDIRF coverage remains in effect, unless this appointment is modified by mutual written agreement between the Burleigh County State's Attorney and the NDIRF.

Julie Lawyer

Burleigh County State's Attorney Burleigh County, North Dakota Date: 3-13-19

HCR 3048 3.45.19 #5 P3|

House Concurrent Resolution 3048

Presented by: John Schuh, Legal Counsel

Public Service Commission

Before: Senate Energy and Natural Resources Committee

The Honorable Jessica Unruh, Chairman

Date: March 15, 2019

TESTIMONY

Madam Chair and committee members, I am John Schuh, a staff attorney with the Public Service Commission. The Commission requested that I appear before you to provide some general information related to wind decommissioning and reclamation.

In 2007, the legislature enacted N.D.C.C. § 49-02-27 providing that the Commission shall adopt rules governing the decommissioning of commercial wind energy conversion facilities. Immediately afterwards, the Commission promulgated rules with decommissioning and reclamation requirements. In 2017, the Commission revisited the decommissioning of wind farms to create a more comprehensive decommissioning framework.

A few highlights of the most recent rulemaking are:

- The company must file an annual certificate of operation with the Commission by April 1st of each year, certifying to a facility's capacity factor and output.
- Increasing the depth of removal for foundations and buildings from three to four feet for new wind farms.

- A requirement to file a decommissioning plan and cost estimate that excludes salvage value.
- A wind farm sited prior to July 1, 2017 must provide a financial assurance sufficient to ensure decommissioning upon reaching ten years of operation.
- A wind farm sited after July 1, 2017 must provide a construction assurance set at five percent of construction costs prior to beginning construction.
 Prior to operation, an operational financial assurance must be provided that is sufficient to ensure complete decommissioning of the wind farm.

I have attached a copy of our wind decommissioning administrative rules and the Commission order submitting the rules for Attorney General review. The Commission order provides a broad explanation on the current rules.

Madam Chairman, this concludes my testimony. I hope this is was informative and I will be happy to answer any questions.

CHAPTER 69-09-09 WIND FACILITY DECOMMISSIONING

Section	
69-09-09-01	Definitions
69-09-09-02	Decommissioning Responsibility
69-09-09-03	Abandonment and Useful Life - Certificate of Operation
69-09-09-04	Decommissioning Period
69-09-09-05	Decommissioning Requirements
69-09-09-06	Decommissioning Plan
69-09-09-07	Existing Facilities
69-09-09-08	Financial Assurance
69-09-09-09	Failure to Decommission
69-09-09-10	Wind Energy Conversion Facility - Waiver

69-09-09-01. Definitions.

- 1. "Capacity factor" means the ratio of the actual output generated by a facility for a period of time, to the output that could be produced at the nameplate generating capacity of that facility.
- 2. "Certificate of operation" means an affidavit executed by the owner certifying to the commission a facility's:
 - a. Nameplate generating capacity;
 - b. Annual capacity factor;
 - c. Annual megawatt hour output; and
 - d. Monthly megawatt hour output.
- "Commercial wind energy conversion facility" means a wind energy conversion facility with one or more wind turbines that has a total nameplate generating capacity equal to or greater than five hundred kilowatts.
- 4. "Commission" means the public service commission.
- 5. "Construction" means any clearing of land, excavation, or other action that would affect the environment of the site of a facility, but does not include activities incident to preliminary engineering or environmental studies.
- 6. "Decommissioning plan" means a plan filed with the commission that includes:
 - a. The anticipated life of the facility;
 - b. A decommissioning cost estimate, excluding salvage value of the turbines and equipment;
 - c. A description of the method used for determining the decommissioning cost estimate;
 - d. The anticipated manner in which the project will be decommissioned;
 - e. A description of any expected effects on present and future natural resource development; and
 - f. A detailed plan of financial assurance sufficient to ensure decommissioning.

- 7. "Existing facility" means a facility for which a certificate of site compatibility has been issued prior to July 1, 2017.
- 8. "Facility" means a commercial wind energy conversion facility, including wind turbines, turbine towers, tower bases, blades, pad transformers, collector lines, substations, facility access roads, meteorology towers, and all areas disturbed by the construction, operation, maintenance, or decommissioning activities.
- 9. "Owner" means a person who holds a certificate of site compatibility pursuant to North Dakota Century Code chapter 49-22.

History: Effective October 1, 2008; amended effective July 1, 2017.

General Authority: NDCC 28-32-02, 49-02-27

Law Implemented: NDCC 49-02-27

69-09-09-02. Decommissioning responsibility.

The owner is responsible for decommissioning the facility and for all costs associated with decommissioning.

History: Effective October 1, 2008; amended effective July 1, 2017.

General Authority: NDCC 28-32-02, 49-02-27

Law Implemented: NDCC 49-02-27

69-09-03. Abandonment and useful life - Certificate of operation.

- 1. After construction of a facility is complete, the owner shall annually file a certificate of operation with the commission for that facility by April first of each year.
- 2. If no energy is generated by one or more wind turbines for the time period specified in the certificate of operation, a written explanation for the nongenerating wind turbines must accompany the certificate of operation.
- 3. A facility is presumed to be at the end of its useful life if its annual capacity factor is less than ten percent for two consecutive years.
- 4. A facility is presumed to be abandoned if, after commencement of construction and prior to completion, a period of twenty-four consecutive months has passed with no significant construction.
- 5. A presumption under this section may be rebutted by filing a plan for commission approval outlining the steps and schedule for continuing construction or operation of the facility or wind turbine.

History: Effective October 1, 2008; amended effective July 1, 2017.

General Authority: NDCC 28-32-02, 49-02-27

Law Implemented: NDCC 49-02-27

69-09-04. Decommissioning period.

The owner shall begin decommissioning within twelve months after abandonment or the end of its useful life. Decommissioning must be completed within twenty-four months after abandonment or the end of its useful life unless the commission approves a plan specifying the steps and schedules to return the facility to operation.

History: Effective October 1, 2008; amended effective July 1, 2017.

General Authority: NDCC 28-32-02, 49-02-27

Law Implemented: NDCC 49-02-27

69-09-05. Decommissioning requirements.

Decommissioning includes:

- 1. Dismantling and removal of all towers, turbine generators, transformers, and overhead cables;
- 2. Removal of underground cables to a depth of twenty-four inches [60.96 centimeters];
- 3. Removal of foundations, buildings, and ancillary equipment to a depth of:
 - a. Three feet [91.44 centimeters] for facilities constructed before July 1, 2017; and
 - b. Four feet [121.92 centimeters] for facilities constructed on or after July 1, 2017;
- 4. Site restoration and reclamation to the approximate original topography that existed prior to construction of the facility with topsoil respread over the disturbed areas at a depth similar to that in existence prior to the disturbance; and
- 5. Grading and topsoil of areas disturbed by the facility, and reseeding according to natural resource conservation service recommendations, unless the commission approves an owner request signed by the applicable landowner, identifying the surface features the landowner prefers to remain in place, and the reason the landowner prefers those features to remain.

History: Effective October 1, 2008; amended effective July 1, 2017.

General Authority: NDCC 28-32-02, 49-02-27

Law Implemented: NDCC 49-02-27

69-09-09-06. Decommissioning plan.

- 1. Prior to the commencement of operation of a facility, the owner must have an approved decommissioning plan.
- 2. The commission shall make a determination on the decommissioning plan no later than sixty days after the decommissioning plan is deemed complete by the commission.
- 3. A decommissioning cost estimate for a facility:
 - Must be made by a professional engineer licensed by the state of North Dakota and at the owner's expense;
 - b. May include a decommissioning cost estimate, including salvage value, in addition to the decommissioning cost estimate, excluding salvage value;
 - c. Must be updated and filed with the commission ten years after initial approval of the decommissioning plan and then continue to be updated and filed with the commission every five years until decommissioning is complete.
- 4. The commission may at any time require the owner to file an updated decommissioning plan.

History: Effective October 1, 2008; amended effective October 1, 2010; July 1, 2017.

General Authority: NDCC 28-32-02, 49-02-27

Law Implemented: NDCC 49-02-27

69-09-09-07. Existing facilities.

The owner of an existing facility shall provide financial assurance after the tenth year of operation sufficient to complete decommissioning.

History: Effective October 1, 2008; amended effective July 1, 2017.

General Authority: NDCC 28-32-02, 49-02-27

Law Implemented: NDCC 49-02-27

69-09-09-08. Financial assurance.

1. Prior to commencement of construction of a facility, the owner shall provide financial assurance equal to five percent of the estimated cost of construction of the facility that may be used to decommission the facility in the event it is abandoned prior to operation. Within sixty days of receipt of written notice from the owner that the facility is commercially operational, the commission shall return or release said financial assurance provided to the commission.

- 2. Prior to commencement of operation of a facility, the owner shall provide financial assurance that is acceptable to the commission and sufficient to ensure complete decommissioning.
- Financial assurance may be in the form of a performance bond either as, or combination of, a
 surety bond, irrevocable letter of credit, self-guarantee, parent guarantee, or another form of
 financial assurance that is acceptable to the commission to cover the anticipated costs of
 decommissioning.
- 4. The commission may allow the owner to provide financial assurance through an incremental bond schedule. To be given consideration, an incremental bond schedule must include an initial bond increment prior to commencement of operation.
- 5. The commission may accept a self-guarantee or parent guarantee if:
 - a. The owner has been in continuous operation as a business entity for five years preceding the application. The commission may accept a self-guarantee with less than five years of continuous operation if guaranteed with a parent guarantee and the parent company has been in operation for at least five years preceding the application; and
 - b. The owner or parent guarantor has or is one of the following:
 - (1) A current rating in the "A" category or higher for its most recent bond issuance or issuer rating as issued by Moody's Investors Service, Standard and Poor's Corporation, or an equivalent rating by any other nationally recognized statistical rating organization, as defined and approved by the United States securities and exchange commission, that is acceptable to the commission. If an organization has different ratings among various rating organizations, the commission shall accept the higher of the ratings;
 - (2) A tangible net worth of at least ten million dollars, a ratio of total liabilities to net worth of 2.5 or less, and a ratio of current assets to current liability of 1.2 or greater; or
 - (3) An electric public utility as defined by subsection 2 of North Dakota Century Code section 49-03-01.5.
- 6. The total amount of an outstanding self-guarantee for decommissioning may not exceed twenty-five percent of the owner's tangible net worth in the United States.
- 7. The combined total amount of an outstanding self-guarantee and parent guarantee for decommissioning my not exceed twenty-five percent of the owner's and parent guarantor's combined tangible net worth in the United States.
- 8. If any financial assurance is modified, canceled, suspended, or revoked, the owner shall immediately notify the commission and provide financial assurance as soon as practicable sufficient to ensure complete decommissioning.

9. The commission may require additional financial assurance upon a finding that the current financial assurance for a facility is not sufficient to ensure complete decommissioning.

History: Effective October 1, 2008; amended effective July 1, 2017.

General Authority: NDCC 28-32-02, 49-02-27

Law Implemented: NDCC 49-02-27

69-09-09. Failure to decommission.

If the owner does not complete decommissioning, the commission may take action to complete decommissioning, including action to require forfeiture of a bond. The entry into a participating landowner agreement shall constitute agreement and consent of the parties to the agreement, their respective heirs, successors, and assigns, that the commission may take such action as may be necessary to decommission a facility, including the exercise by the commission, commission staff, and their contractors of the right of ingress and egress for the purpose of decommissioning the facility.

History: Effective October 1, 2008; amended effective July 1, 2017.

General Authority: NDCC 28-32-02, 49-02-27

Law Implemented: NDCC 49-02-27

69-09-09-10. Wind energy conversion facility - Waiver.

The commission may grant a waiver of any requirement described in sections 69-09-09-03, 69-09-09-06, or 69-09-09-08 for a commercial wind energy conversion facility with a nameplate generating capacity of no more than five megawatts of electricity upon a motion demonstrating good cause for the waiver.

History: Effective July 1, 2018.

General Authority: NDCC 28-32-02, 49-02-27

Law Implemented: NDCC 49-02-27

STATE OF NORTH DAKOTA

PUBLIC SERVICE COMMISSION

Public Service Commission
Public Utilities
Rulemaking

Case No. PU-16-775

Public Service Commission
Public Utilities - Wind Decommissioning
Rulemaking

Case No. PU-17-23

ORDER SUBMITTING RULES TO ATTORNEY GENERAL

April 21, 2017

Appearances

Commissioners Randy Christmann and Julie Fedorchak

Preliminary Statement

On January 18, 2017, the North Dakota Public Service Commission (Commission) issued a formal Notice of Intent to Amend Administrative Rules and Notice of Public Hearing and an Abbreviated Notice proposing to revise several sections of the North Dakota Administrative Code.

On January 23, 2017, the Commission issued a corrected formal Notice of Intent to Amend Administrative Rules and Notice of Public Hearing and a corrected Abbreviated Notice to reflect the correct date for receipt of comments.

The proposed rules are summarized as follows:

Public Utilities – Case No. PU-16-775 – Sections 69-06-08-01 and 69-09-02-35:

The Commission is proposing to amend North Dakota Administrative Code section 69-06-08-01 to add the impact on light sensitive land uses to the selection criteria, which must be at an acceptable minimum. The Commission is further proposing to add new policy criteria to allow preference to be given to wind energy projects that commit to installing light mitigation technology subject to commercial availability and Federal Aviation Administration approval.

The Commission is proposing to amend North Dakota Administrative Code section 69-09-02-35 to adopt the 2017 update to the National Electrical Safety Code.

Public Utilities - Wind Decommissioning - Case No. PU-17-23 - Chapter 69-09-09:

The Commission is proposing to amend North Dakota Administrative Code chapter 69-09-09 to strengthen decommissioning requirements and require decommissioning plans to be filed for Commission approval prior to operation. A two-phased approach is being proposed for financial assurance with an initial financial assurance being provided prior to construction and financial assurance sufficient to ensure complete decommissioning to be provided prior to operation.

On January 19, 2017, Staff filed statements regarding the required regulatory analyses, small entity analyses, and takings assessments.

On January 20, 2017, the notices were forwarded to the Legislative Council for publication at least 30 days in advance of the hearing.

On January 23, 2017, corrected notices were forwarded to the Legislative Council for publication at least 30 days in advance of the hearing.

The Abbreviated Notice was published once in 52 official county newspapers the week of January 27 through February 2, 2017.

A public hearing was noticed for and held on February 27, 2017, beginning at 8:30 a.m., CST, in the Commission Hearing Room, 12th floor, State Capitol, Bismarck, North Dakota.

The Commission allowed, after the conclusion of the rulemaking hearing, a comment period until March 9, 2017, during which data, views, or oral arguments concerning the proposed rulemaking could be received by the Commission and made a part of the rulemaking record to be considered by the Commission.

Public Hearing and Comments

Written and oral comments by Jerry Lein of Commission staff were received at the hearing. During the hearing, oral comments were submitted by David Shepard of Drake Lighting, Tom Carlson of EDF Renewable Energy, Jean Schafer of Basin Electric, Frank Costanza of Tradewind Energy, Inc., Chris Kunkle of Wind on the Wires, Julie Voeck of NextEra Energy Resources, Jay Doan, Jerry Doan, Wade Mills, and Andy Buntrock,

Written comments were submitted by: Enel Green Power North America, Inc. & Tradewind Energy, Inc. ("EGPNA"), Wind on the Wires ("WOW"), Basin Electric Power Cooperative ("Basin"), Montana-Dakota Utilities Co., a Division of MDU Resources Group, Inc. ("MDU"), NextEra Energy Resources ("NextEra"), Tradewind Energy, Inc. ("Tradewind" if filed individually), Red Butte Wind, LLC. ("Red Butte"), Capital Power

Corporation ("Capital Power"), and Prairie Rose Realty, Inc. A number of citizens filed comments: Andy Buntrock, Durant Schiermeister, Jim Melchior, The Mills Family (Daymon & Lois Mills, Daymon Jr. & Lori Mills, Wade & Kerri Mills), Tricia Fossum, David and Vicki Carpenter, Mark Naaden, Alison Grotberg, Sue Haas Kleinsasser, Jay Doan, Jerry Doan, Jayce Doan.

All comments were reviewed and considered. Many of the comments received were relevant to wind development but did not address the rulemaking for which the Commission noticed and sought comments. The Commission will take these comments into consideration to advise the need for future rulemaking.

The following discusses the written and oral comments that were received.

Case No. PU-17-23: Wind Decommissioning

The Commission proposed changes to N.D. Admin. Code Ch. 69-09-09. At the hearing Commission staff testified that over the last eight to nine years, North Dakota has seen a substantial number of commercial wind energy conversion facilities begin operation. The proposed rules are intended to strengthen the method of ensuring funds for decommissioning and restoration are available throughout the life of the project, heighten decommissioning requirements for future facilities, and allow the Commission to more effectively monitor the costs for decommissioning and restoration. The industry and concerned citizens expressed a number of concerns in their comments. These comments are addressed by section.

69-09-09-01: Definitions

69-09-09-01(2) "Certificate of Operation"

WOW commented that the Certificate of Operation may aggregate commercially sensitive information that could expose wind companies to a competitive disadvantage. It was suggested that the Commission may require that the report be confidential, thus giving the Commission the information they need while protecting the companies from exposing competitive information. It was further suggested that the company be only required to provide easily attainable information such as nameplate capacity and annual megawatt-hour output, and then provide an explanation why any turbines are not operational.

The revised proposed 69-09-09-01 in conjunction with 69-09-09-03(2) has been adjusted to provide that if no energy is generated by one or more wind turbines for the time period specified in the Certificate of Operation, a written explanation for the non-generating wind turbines must accompany the Certificate of Operation. However, the Certificate of Operation as proposed requires the remainder of information to be filed annually. This information is useful to the Commission for proper monitoring of use and

HCR 3048 3.15.19 # 6 19.9

operation of the facility. If the information provided to the Commission may be protected, the company may request an application for protection of information and cite the law that may allow the Commission to prevent disclosure.

69-09-09-01(5) - "Construction":

Red Butte requested the addition of a definition of "Construction" to clarify commencement of construction and requested that the definition excludes activities incident to preliminary engineering or environmental studies. This concern was echoed by EGPNA and WOW.

The revised proposed 69-09-09-01(5) has been modified to reflect these concerns, incorporating a "Construction" definition that excludes activities incident to preliminary engineering and environmental studies.

69-09-09-01(6) – "Decommissioning Plan" and Salvage Value:

The added definition for "Decommissioning Plan" requires the inclusion of a decommissioning cost estimate excluding salvage value of the turbines and equipment. EGPNA requested that the cost estimate included in the Decommissioning Plan not provide that the cost estimate be filed "excluding salvage value of the turbines and equipment," due to the appearance that it creates a limitation for the Commission from considering decommissioning costs. WOW comments support the consideration of salvage value in the decommissioning cost estimate and seek to ensure that the Commission has flexibility to do so if it chooses.

David and Vicki Carpenter commented that reliance on and consideration of salvage value for decommissioning is not a realistic approach.

As written, the proposed rules allow the Commission discretion to consider the appropriate level and type of financial assurance to ensure complete decommissioning as described in N.D. Admin. Code 69-09-09-05. The proposed N.D. Admin. Code § 69-09-09-06(3)(a) provides that an owner may include an estimate in addition to the required cost estimate excluding salvage value. The price of salvage materials is subject to market price and often volatile. The Commission's low confidence in the predictability of the market and consistency in salvage value over the length of a wind farm's useful life may result in a reluctance to include a substantial salvage value being reduced from decommissioning costs¹. The result is an absolute requirement to have a cost estimate with salvage value excluded, while allowing the owner the discretion to provide an additional estimate for consideration.

¹ While many states do allow salvage value to be considered, the Commission would not be alone if it chose to not allow consideration of salvage value as part of the cost estimate. See e.g. Wyo. Admin. Code § ENV IS Ch. 1 s 9(e)(ii); Okla. Stat. Ann. tit. 17, § 160.15(B)(1)(a); NH ADC SITE 301.08(a)(8)(a).

69-09-09-01(7) - "Existing facility"

MDU requested that "existing facility" definition be clarified so that the definition of "existing facility" be a facility for which a site compatibility certificate has been issued prior to July 1, 2017. MDU stated that this was to ensure that the conditions under which the certificate of site compatibility was issued not be modified prior to construction.

The proposed 69-09-09-01(7) defines "existing facility" as a facility for which a certificate of site compatibility has been issued prior to July 1, 2017. The decommissioning rules do not govern the certificate of site compatibility. They do reflect the manner in which a wind facility is decommissioned and the land is restored, and how an owner assures the Commission that it will be properly decommissioned.

69-09-09-01(8) - "Owner"

EGPNA requests that the definition of "owner" be changed from a person who "has acquired" to "holds" a certificate of site compatibility for a facility.

To clarify that the definition is broad enough to cover a transfer of site certificate, the Commission has revised the proposed 69-09-09-01(8) to accommodate the request.

69-09-03: Abandonment and useful life – Certificate of Operation

69-09-03(1) – the Certificate of Operation filing date

EGPNA requested the Certificate of Operation deadline be changed to at least March 31 (the end of the first quarter) to allow more time for submission and filing. The revised proposed 69-09-09-03(1) moves the filing date for a Certificate of Operation to the first of April to accommodate the requested time.

69-09-03(3) - the ten percent capacity factor for end of useful life

A number of comments were received regarding the proposal that there be a rebuttable presumption that a facility is at the end of its useful life if its annual capacity factor was less than ten percent.

EGPNA, WOW, MDU, NextEra and Red Butte requested that the rebuttable presumption for the end of useful life remain as "generates no electricity for a continuing period of 24 months." The companies claim that the ten percent is an arbitrary number and that it does not account for changing market conditions such as regional transmission organization (RTO) operating rule changes, or catastrophic and force majeure events. NextEra questioned the need for the ten percent threshold due to the

HCR 3048 3.15.19 # 6 Pg.11

owner likely losing money below a ten percent capacity factor level, and not receiving any financial benefit from delaying decommissioning.

The Commission disagrees with the assessment of ten percent being an arbitrary number. However, it is agreeable to extending the minimum annual capacity factor of ten percent to two consecutive years. As Commission Staff's comments reflect, modern North Dakota wind projects operate in the range of a 50 percent capacity factor. Ten percent is a conservative assessment. Furthermore, the events of concern are of the sort that may result in an early end of useful life. As commented by NextEra, a facility operating at less than a ten percent capacity factor level is unprofitable. Having the annual capacity factor threshold at ten percent for two consecutive years will allow the Commission to monitor the financial health of an owner and whether the facility is distressed after an unforeseen event.

Extending the ten percent minimum capacity factor to two consecutive years provides an opportunity to restore the facility to operation even with an extended maintenance issue or after a catastrophic event. If an owner is unable to reach the ten percent capacity factor but has a plan to get the facility back to useful operation, the presumption may be rebutted. The revised proposed 69-09-09-03(3) has been modified to reflect the change.

69-09-09-04 - Decommissioning Period

EGPNA requested that minor revisions be made to "tie the triggers for decommissioning . . . 69-09-09-03, which is in the current rule." Basin requested the time frame for decommissioning be moved from eight months to 12 months to allow for weather delays.

The Commission agrees with the extending of the decommissioning time to 12 months and the proposed rule is revised accordingly. With regards to EGPNA's request to tie the triggers for decommissioning 69-09-03, the Commission has given it consideration, but will not be incorporating the request during this rulemaking.

69-09-05 Decommissioning requirements

69-09-09-05(2) Removal of Cables

Concerned citizens commented on the depth of the cable removal. Jim Melchior commented that all waste should be removed to a depth of 8 feet. The Mills family disagreed and commented that removal to any depth should not be required and would do more harm to the native grasslands than if just left in the ground.

At this time, the Commission is not proposing a change to 69-09-09-05(2). The Commission will take this into consideration for future rulemaking.

69-09-09-05(3) Removal of foundations

Proposed 69-09-09-05(3) increases the depth of removal of foundations, buildings and ancillary equipment from three feet to four feet for facilities constructed after July 1, 2017. Commission staff commented that the purpose is to provide further protections against possible conflicts with future surface usage.

A number of comments were received by concerned citizens. Jim Melchior's comments related to foundations as well as cables and suggested that all waste be removed to 8 feet. Alison Grotberg commented that removal of concrete to 8 or 9 feet would be adequate for future development. Jayce, Jay, and Jerry Doan and David and Vicki Carpenter support removal of all concrete to accommodate future wells, water lines, fences, and buildings. At the hearing, Jerry and Jay Doan stated that complete removal would be appropriate for proper utilization of the land for the next generation and subsequent owners. Jerry Doan also noted that water lines are often dropped to an eight feet depth.

These concerns have been considered by the Commission and may be revisited in subsequent rulemaking. For the purposes of the current rulemaking, the Commission's proposed 69-09-09-05(3) depth of removal will remain as a step-up to four feet after July 1, 2017.

69-09-05(5) Landowner approval to retain surface features

Julie Voeck of NextEra commented at the hearing and MDU provided written comments that landowner preference should be given consideration for specifics of lease agreements regarding restoration and reclamation to original topography and that landowners should have the choice to keep changes to their property.

Proposed 69-09-09-05(5) allows that an owner request signed by the applicable landowner to retain surface features will be considered. The Commission approval requirement will prevent an owner from circumventing decommissioning requirements that have no beneficial use to the landowner.

69-09-09 Decommissioning Plan

69-09-09-06(1) and (2) - Decommissioning plan approval

As originally noticed by the Commission, the proposed rules required an owner to have an approved decommissioning plan prior to commencement of construction and allowed the Commission six months to make a determination on the decommissioning

HCR 3048 3.15.19 #6 Pg.13

plan. The six month period to make a determination was intended to allow the time frame to run with the siting approval period and incentivize concurrent filings.

EGPNA commented that the decommissioning plan being filed concurrently with the siting approval would lead to an inaccurate cost estimate. Instead, EGPNA suggested a two-phase approach for financial assurances be adopted and allow the decommissioning plan to be filed prior to operation. The suggested two-phase approach would provide an initial construction phase financial assurance of ten percent of the construction costs. Upon completion of construction, the initial financial assurance will be released and replaced upon receipt of a second financial assurance adequate for full decommissioning during the operation phase. This would allow for the Commission to have adequate financial assurances in place prior to having a decommissioning plan and streamline the process to get a wind facility operational.

WOW expressed concerns that the plan's timeline may interfere with wind development. WOW stated that the "PSC should ensure that the decommissioning plan is considered simultaneously with the site compatibility permit, instead of handing two approvals in the series, thus extending the timeline for construction." They also had concerns that even if this is done, the decommissioning plan may not be reasonably accurate at the time and a lengthy lead time may possibly result in unnecessary delay of project construction. WOW also suggested a tightening of the six month timeframe.

The Commission considered the two-phase approach to financial assurances and the timing of the decommissioning plan. The Commission agrees that a two-phase approach will be appropriate to ensuring proper decommissioning. In applying the change to a two phase financial assurance plan, the revised proposed 69-09-09-06(1) requires the decommissioning plan to be approved prior to operation of the facility, and the revised proposed 69-09-09-06(2) shortens the period for the Commission to make a determination to sixty days after the decommissioning plan is deemed complete.

69-09-09-06(3) Decommissioning Cost Estimate

The proposed 69-09-09-06(3) requires cost estimates to be made by a professional engineer. MDU commented that they develop decommissioning cost estimates in-house and that requiring a professional engineer could increase costs. Instead, MDU suggests qualifications of an engineer be provided for the Commission to accept or reject. At the hearing, Frank Costanza of Tradewind supported the licensed professional engineer requirement.

Proposed 69-09-06(3) will continue to require a professional engineer licensed by the State of North Dakota. The qualifications of an engineer is better assessed by the State Board of Registration for Professional Engineers and Land Surveyors for the purposes of administration of decommissioning.

69-09-09-08 Financial Assurance

69-09-09(1) Financial assurance requirement time

The proposed 69-09-08(1) required the owner to have financial assurance sufficient for complete decommissioning prior to the commencement of construction.

EGPNA commented that a requirement of financial assurances after year ten of operations should be sufficient due to minimal risk of failed decommissioning and project financing. However, they recognized the Commission's concerns and commented that the two-phased financial assurance structure with an initial financial assurance of ten percent of construction costs during the construction phase should be sufficient to alleviate the Commission's concerns. Red Butte commented in support of the two-phased approach and believes it will simplify the process for the owner and the Commission. For the construction phase, Red Butte suggested that a \$60,000 per turbine financial assurance will be sufficient as an alternative to the ten percent of construction costs.

WOW commented that requiring financial assurances prior to construction is an unnecessary burden on the companies, but supports an incremental or phased in approach. Capital Power commented in support of WOW and opposes the financial assurance prior to construction as an unnecessary economic burden and runs counter to industry norms.

Jayce, Jay, and Jerry Doan, Andy and KariAnn Buntrock, and Mark Naaden support financial assurances prior to the commencement of construction.

The Commission agrees that the two-phased approach is appropriate for financial assurance and a streamlined process. After reviewing the cost of construction of past projects in North Dakota, the revised proposed 69-09-09-08(1) will require an initial financial assurance equal to five percent of the estimated cost of construction in case of abandonment, prior to commencement of construction. The revised proposed 69-09-09-08(2) requires financial assurance sufficient to ensure complete decommissioning prior to the commencement of operation of a facility.

69-09-09(1) Types of financial assurance – local bonding

EGPNA, WOW and NextEra request that local bonding be considered as a financial assurance. The companies state that it would double the cost of providing financial assurance without providing any public benefit.

The Commission believes its rules retain the discretion to take local bonding into consideration. However, to what extent the local bond will be taken into consideration

HCR 3048 3.15.19 #6 P1.15

will depend heavily on the Commission being able to ensure that complete decommissioning will occur.

69-09-09-08(4) Incremental Bond Schedule

EGPNA requested an incremental bond schedule be implemented with a 25% initial bond, 25% addition after five years, and the remaining 50% be provided after ten years. Red Butte also requested 69-09-09-08(2) be changed to allow bonding to be implemented on an incremental basis of ten percent per year. Capital Power agreed that a phased in approach is appropriate. The Mills family commented that financial assurance should be incremental rather than require all financial assurance up front.

Proposed 69-09-09-08(4) provides the Commission discretion to consider financial assurance on an incremental basis.

69-09-09-08(5)(a) Self guarantee "at least"

Red Butte requests the removal of "at least" from 69-09-08(5)(b) because it implies that the Commission could impose a more stringent owner or parent guarantor requirement than are set forth in the proposed rule.

The Commission agrees with the removal of "at least" as it adds no meaning to the rule. Revised proposed 69-09-08(4) grants that the Commission "may" require more stringent standards, or the discretion to not accept a self-quarantee.

69-09-09-08(5)(b) Credit rating

The noticed proposed rules increased the "BBB-" or higher bond rating to an "A" category or higher. Commission staff commented that the heightened financial assurance requirements mirror those of the Office of Surface Mining and Reclamation Enforcement (OSM) for coal mine reclamation and ensure that only the most sound owners are allowed to self or parent guarantee.

Tricia Fossum and Andy and KariAnn Buntrock commented in favor of sound financial assurances. The Buntrocks commented that owners should be held accountable to the same standards as other industries. At the hearing, Jerry Doan commented that "A" rated bonds are needed for reclamation, similar to other industries.

The Mills family testified that the "A" rating requirement should be changed to investment grade.

NextEra commented that the credit rating should be changed to "investment grade." Investment grade credit ratings are considered low risk. The "A" credit rating is the highest among industry participants and NextEra was not aware of any major

HCR 3048 3.15.19 #6 M.16

market participants with an issuer credit rating of "A". Without specifying a credit rating at the high end of the investment grade range, investment grade is adequate to accomplish the Commission's goal without imposing unnecessary costs on wind facility owners. WOW and Capital Power both requested that the minimum bond rating remains at "BBB-" or have the language changed to investment grade. Capital Power commented that "investment grade" is consistent with most electric power markets, including MISO.

Basin suggested minor revisions for clarification that the "A" rating was meant to encompass the whole "A" category, as well as clarification that the Commission would accept the higher of multiple rating organizations if there is a split. NextEra also commented that different types of credit ratings exist and that credit ratings also provide issuer ratings, which indicate an overall credit risk. NextEra requested that the language be revised to include issuer ratings.

The Commission has considered the comments regarding credit and bond ratings and has chosen to retain the "A" grade rating while incorporating the minor revisions suggested by Basin and NextEra's issuer rating addition revision. The Commission has maintained a successful mining and reclamation program, which requires an "A" bond rating for self-bonding. Pursuant to this success, the Commission has chosen to follow OSM's proposal with regards to wind farm decommissioning². OSM's standards were based upon a finding that the top three ratings of Standard and Poor's and Moody's Investor Service would better assure that the company applying for self-bonding would be able to survive in depressed economic conditions. "A" review of Corporate Credit Ratings, demonstrate a low default for investment grade, however, even "AA" or "A" ratings "should not be seen as a guarantee of capital markets access."³

To ensure that only the most sound owners are allowed to self or parent guarantee, the revised proposed 69-09-08(5) retains the "A" rating standard while incorporating the minor revisions to allow for issuer credit ratings and accommodate Basin's requested clarifications.

PU-16-775 Siting Criteria

69-06-08-01(5)(c)

Staff commented that the proposed changes are to update and codify the Commission's existing energy conversion facility criteria to add the impact on light-sensitive land uses to the selection criteria, which must be at an acceptable minimum.

What Additional Requirements Apply to Self-Bonds, 30 C.F.R. § 800.23. See also PSC Docket No. 48.

³ Corporate Credit Ratings – A Quick Guide. PSC Docket No. 47.

WOW suggests that the proposal is unnecessary, but if kept, additional clarification from the Commission would be preferred.

Proposed 69-06-08-01(5) retains the addition of "light-sensitive land uses." N.D.C.C. § 49-22-05.1 states that the Commission shall develop criteria to guide the suitability evaluation and designation process. The addition of the criteria puts an applicant on notice that the effects of light will be evaluated for the purposes of their application and hearing.

69-06-08-01(6)(n)

The proposed 69-06-08-01(6)(n) added a new policy criteria to allow preference to be given to wind energy projects that commit to installing aircraft detection lighting systems subject to Federal Aviation Administration (FAA) approval. Commission staff commented that the aircraft detection and lighting systems are a new technology coming available that uses radar to detect when an aircraft is in the vicinity so the flashing lights can be turned on only when needed. The Commission is already giving consideration to the use of aircraft detection and lighting systems. The rule changes would codify the existing practice.

WOW requested that the Commission allow other technologies designed to mitigate lighting impacts to be considered, such as light intensity dimming solutions (LIDS) to allow for flexibility. Drake Lighting, EGPNA, and MDU agreed that the requirements should be technology neutral.

EGPNA requested the addition of "to use commercially reasonable efforts" and "subject to FAA-approved system" instead of a hard requirement to implement the technology. EGPNA's concern is due to the limited commercial availability of the systems if they become widespread and or unable to secure a FAA approval, or that it may be financially untenable to do so. MDU commented that it should only apply to prospective cases going forward.

There was an overwhelming support from concerned citizens in favor of lighting system rules. Tricia Fossum, David and Vicki Carpenter, Mark Naaden, Jim Melchior, Durant Schiermeister, Sue Hass Kleinsasser, Andy Buntrock, and the Mills Family all commented in support of the changes. In general, the citizens indicated the light pollution from the wind turbines were littering the night sky and that less intrusive technology should be implemented. The Mills Family stated that LIDS should be preferred over radar due to the expense on existing wind farms.

In consideration of the concerns of the industry, revised proposed 69-06-08-01(6)(n) has been modified to be technology neutral and subject to commercial availability in addition to the FAA approval.

69-09-02-35 - Installation and maintenance

Proposed 69-09-02-35 updates the rules and regulations for the installation and maintenance of electric supply and communication lines. The purpose of the adopting the 2017 Edition is to ensure that North Dakota safety requirements keep pace with industry standards. Aside from Staff testimony, no comments were received.

Proposed 69-09-02-35 updates the National Electrical Safety Code from 2012 to 2017.

Discussion

The Commission agrees with adopting the rules as revised.

Having reviewed the proposed revised rules and the testimony and comments received, the Commission finds good cause for submitting the revised proposed rules, attached to and made a part of this order, to the Attorney General for an opinion as to legality.

Order

The Commission orders the revised proposed changes to the North Dakota Administrative Code, as attached to and made a part of this order, be submitted to the Attorney General for an opinion that the rules are approved as to their legality.

PUBLIC SERVICE COMMISSION

Brian Kroshus

Commissioner

Randy Christmann

Chairman

Julie Fedorchak

Commissioner

HCR 3048 3.28.19 #1 Pg.1

Sixty-sixth Legislative Assembly of North Dakota

HOUSE CONCURRENT RESOLUTION NO. 3048

Introduced by

Representatives Magrum, Fegley, Johnston, Karls, Satrom, Simons

1	A concurrent resolution directing the Legislative Management to consider studying the feasibility
2	and desirability of establishing a wind reclamation fund and whether the statutorily required
3	minimum wind turbine setback distances provide adequate protections to nonparticipating
4	landowners and their property.
5	WHEREAS, wind power is the fastest-growing source of electricity in the world and North
6	Dakota is a leading state within wind power generation, with 21.5 percent of all in-state
7	generated electricity in 2016 powered by wind; and
8	WHEREAS, wind energy can be a very environmentally, economically, and socially
9	sustainable source of energy when careful decommissioning planning is undertaken to ensure
10	the costs and benefits are shared equitably and there are no lasting impacts on the physical
11	and cultural landscape; and
12	WHEREAS, the type of land used for wind energy generation often is agriculture, grazing,
13	recreation, open space, scenic areas, wildlife habitat, and forest management and is typically
14	suitable to areas of grazing or agricultural uses; and
15	WHEREAS, the agricultural and grazing land uses are disturbed by the construction of a
16	wind turbine, and some intensive agriculture may be adversely impacted during operation; and
17	WHEREAS, without additional financial assurance requirements, property owners would be
18	burdened with the financial responsibility of restoring land to the original condition after the
19	decommissioning of a wind turbine; and
20	WHEREAS, establishing a wind reclamation fund would assist property owners with the
21	excess costs associated with removal of a wind turbine, foundation and road removal, site
22	remediation, abandonment, and repairing damage caused during decommissioning; and
23	WHEREAS, minimum wind turbine setback distance requirements are codified safety
24	measures enacted to protect the land, property, and health of nonparticipating landowners; and

Sixty-sixth Legislative Assembly

1

2

3

4

5

6

7

8

9

10

11

12

HCR 3048 3.28.19 #1 PJ.2

WHEREAS, noise, shadow flickering, ice fall, and turbine failure, produce risks to a
nonparticipating landowner's land, property, and health, which can be reasonably mitigated,
minimized, or eliminated by requiring effective and feasible setback distances:

NOW, THEREFORE, BE IT RESOLVED BY THE HOUSE OF REPRESENTATIVES OF NORTH DAKOTA, THE SENATE CONCURRING THEREIN:

That the Legislative Management shall consider studying the feasibility and desirability of establishing a wind reclamation fund and whether the statutorily required minimum wind turbine setback distances provide adequate protections to nonparticipating landowners and their property; and

BE IT FURTHER RESOLVED, that the Legislative Management report its findings and recommendations, together with any legislation required to implement the recommendations, to the Sixty-seventh Legislative Assembly.