

MICROFILM DIVIDER

OMB/RECORDS MANAGEMENT DIVISION

SFN 2053 (2/85) 5M



ROLL NUMBER

DESCRIPTION

1317

2007 HOUSE FINANCE AND TAXATION

HB 1317

2007 HOUSE STANDING COMMITTEE MINUTES

Bill/Resolution No. 1317 A

House Finance and Taxation Committee

☐ Check here for Conference Committee

Hearing Date: February 6, 2007

Recorder Job Number: 2888

Committee Clerk Signature

Mickie Schmidt

Minutes:

Chairman Belter called the committee to order and opened the hearing on HB1317.

Representative Brandenburg: Wonderful things are happening with economic development out in our area as well as the rest of the State. You could imagine what that's doing to wind turbine. This has been very exciting to see cause you wonder how this is all happening to come about and a lot of this is the legislation that we passed in the last two sessions and this Bill deals with property tax at 3% and reducing it to 1-1/2%. People ask why do we need to do that; we need to be competitive with South Dakota and Minnesota. I wrestle with this because you got to leave some money home with your people too. This balance of trying to be able to get the generation placed in North Dakota in order to be competitive with the other States. This is a very important piece of legislation to allow wind development to happen. And yet it still brings money back home for the local district and the counties and that's why it's important. I have an amendment that I would also like to propose. **(See attachment #1)** The main reason is that we just want to allow the time to a purchase power agreement. We've got a number of different situations where if a power company and yourself wanted to put their own wind farm up and qualify for the property tax reduction, there's a miso, which is part of a generation type set up which doesn't fall under the purchase power agreement, so there's different categories

that these wind farms can be built, so with this amendment I think it would address all of those people that are interested and to be able to qualify for the property tax reduction. So with that I would answer any questions you may have.

Representative Grande: On the second part of your amendment where you're deleting lines 19-21, you're also removing an expiration date, are we not going to have any expiration date?

Representative Brandenburg: That's kind of what I was looking at but we can address that if you feel that that's necessary.

Vice Chairman Drovdal: I know this is going to sound like I'm against your Bill and I don't want it to be that way, but the problem I have on credits like this is it's nice and encouraging, we want people to come in. But when we reduce somebody's share of the property of the tax load, we put it on existing business. And how do we go back and tell our existing business's that we're chasing out because of the tax burden already and your last Bill you mentioned it that there's no local ones left anymore. How do we go back and tell those local business's it's alright for you to pay a little bit more and pick up this guy's share?

Representative Brandenburg: That's kind of how a lot of people look at it but, I look at it this way is that; if you're looking at a 50 mega watt wind farm coming in, that's what's happening all over the county as well as Burleigh County. And we're dealing with dependent world of energy. Our goal market is Minneapolis. We need to get to Minneapolis to be able to sell this power. Our competition is South Dakota, as well as North Dakota and Minnesota. Minnesota puts on a mandate. They put the mandates on and they force the people to do it. A 50 mega watt wind farm which probably brings in \$75 million dollars of economic development bring that in to Burleigh County as well as Oliver County. That's creating jobs. That has sold towers from Fargo, blades from Grand Forks. We're giving up property tax. In Lamoure County, its \$300 thousand dollars for property tax at 3%, if we reduce it by 1-1/2% it would be \$150 thousand

dollars. So we gave up \$150 thousand dollars for property tax, but we also created income of 3,500-4,000 thousand dollars for every tower for the land owners for the 25 year contracts.

Also we created \$75 million dollars of structure, development of the wind farm for that structure part of it. We had the people who came in to build them, and we also the full time jobs that are left afterwards, which is about, we have 6 full time people in Edgeley and another 10 part-time basis year around. There's times when I go into Edgeley and I'll drive by in the morning and they got half a dozen to ten pickups running, getting ready to go out to the wind farms. They've got to be serviced. There's a trade off. If you give away all of that tax break, you wonder who's going to make up the difference? But if you don't build them there, they don't happen, they happen somewhere else. We almost have to give so much away, and it bothers me too, Rep.

Drovdal, because why do we have to give so much away to get the building, because that's how close the margin is to get the generation here. My thought is get them here first, before we deal with that.

Representative Headland: You keep mentioning South Dakota and Minnesota and that we need to be competitive. Do their property tax rates stay consistent at the 1-1/2% or do they sunset in those States? What's happening in those States?

Representative Brandenburg: This is exactly what happens when wind farms were built in Edgeley. Basin was looking at 40 mega watts for North Dakota, 40 mega watts in South Dakota and we passed legislation in 2001. South Dakota was not competitive with us and they went into session and I know that they had a drop-dead deadline of the first part of March to deal with their issue of property tax so. They put it upon themselves to tax only what's in the ground and not what's above the ground, making South Dakota competitive. It's a competitive market and if we don't do this there maybe more competitiveness to put these towers in South Dakota. Did I answer your question?

Representative Headland: No, you didn't. I'm asking you if Minnesota or South Dakota sunsets their tax voters in this area?

Representative Brandenburg: I don't know if they're all sunseted. Minnesota's a lot of mandate. South Dakota's just not a lot of tax. I think that's the best way to say it. People around here that work in the energy field probably would have better answers than I do.

Representative Pinkerton: The 2.5 million dollar tower that you're talking about, \$75 thousand dollars is 1-1/2%. Of the 1% of 2.5 million dollars it would be \$25 thousand dollars. 10% would be \$250 thousand dollars. A 2.5 million dollar tower is appraised at \$75 thousand dollars and 3% of value. In most taxes in North Dakota and tax amenities give only \$20.00 a thousand, you're not talking about a great deal of money. Sounds like in this 2.5 million dollar thing that you're putting in, you're talking about \$750.00 per tower.

Representative Brandenburg: Really when you think about it, it's not that... At the 1-1/2% it's not the end of the world. And you'd like to have all of the property tax that you can. But I always say that you got to get them here first and then you can deal with it later.

Representative Pinkerton: If it comes down to this \$750.00 that's going to make or break this deal per tower, it's pretty unreasonable not to.

Representative Brandenburg: We're dealing on a 25 year contract. An example is for Lamoure County it's taxed at 3% and it comes to right around \$280,000 and that could change depending on the mill levy. If you figure \$280,000, now if you want at 1-1/2% you'd be talking \$140,000. So if you take that \$140,000 times 25 years which is the life of the purchase power agreement and also figure you're interest in there that you'd be paying on for a period of time, is doesn't seem like a big number, but it is. And when you're trying to cut your energy costs as low as you possibly can, and make your bid for your agreement for the purchase power

agreement and the price of the power, these are big issues. It's not just a one time number; it's a number for 25 years.

Representative Pinkerton: If the margins are that slim on this kind of business, then what are the guarantees that this wind tower is still going to be there in 10 years and who's responsible for taking it down?

Representative Brandenburg: In energy development the life of these are expected at 25 years, depending on the tower and then they need to be replaced. Let just say worst case scenario, that they're no good, doesn't work, and you're going to have to get rid of the tower. The iron is expensive so you're not going to have a problem dealing with taking that iron and selling or salvaging it and the cement pad is probably 25'x25'. In most contracts, the developers that write the contracts, it states that they have to dig them down to 4 feet in the ground.

Representative Pinkerton: The County is going to be the one who's going to have to clean the problem up. They have to have some revenue streams to protect themselves.

Representative Brandenburg: They all owe the landowners \$3500 to \$4000 dollars a year for 25 years and the iron is going to more than its worth to clean up and take away and the only thing the landowners are going to be left with is a hunk of cement. And I think for \$4000 for 25 years, you can live with that hunk of cement, if it came down to that.

Vice Chairman Drovda: Under current law, in trying to read this Bill it looks like it had a sunset clause on it but under this Bill before, only wind generate turbine generators of 100 kilowatts or more, were taxed at 1-1/2%, the rest were taxed at 3%.

Representative Brandenburg: One hundred kilowatt is so that , these industry type structures that fall under this category, otherwise if it were 100 kw or less which could include some old generators that would qualify for this. That's what we're trying to do is create economic

development construction. So that's why that 100 kw is in there. In order to qualify for the newer property tax you'd have to be putting in a big generator.

Vice Chairman Drovdal: Don't the local sub.'s have the ability to waive property taxes for a said number of years for development like this?

Representative Brandenburg: Yes, they would in a tax abatement, but this really isn't dealing with a tax abatement. This is actually lowering property taxes down to a level that becomes competitive.

Representative Froseth: So this would be on anything constructed before January 1, 2011. What is the percentage on anything that would be constructed after 2011?

Representative Brandenburg: I'm not sure.

Representative Grande: It does go into effect in section 2, but it means that it's completed by 2011.

Representative Brandenburg: In order to qualify for the 1-1/2%, you need to have this construction up and going by that date.

Representative Froseth: What would this assessed percent be after 2011?

Representative Brandenburg: I think we will have to address this again, in the next session.

Chairman Belter: Is there further testimony in support of HB1317?

Chris VandeVenter, Representing Basin Electric Power Cooperative; We're here to support this Bill. Basin Electric has invested in nearly 100 mega watts of wind generation in North Dakota. And with the price of steel and wind turbines, those costs are the cost of building and at 1.5% assessed, this will help keep those costs down and create more development, so we would like to build more wind turbines and we believe this Bill will help us do that.

Representative Schmidt: In my area it seems the tax is no problem. We were supposed to have 100 towers in Rugby. The transmission lines are the problem. We have no transmission lines.

Chris VandeVenter: Transmission is a problem as far as the amount of winds you can build in North Dakota. But, the costs of wind farm, we've seen probably 20 to 30 mill levy increase per mega watt. The costs; transmission is a part of it, but bottom line is it is just too expensive to build.

Chairman Belter: Is there further testimony in support? Is there any opposition?

Bob Graveline, President of the Utility Shareholders of North Dakota; (See attachment #2)

Kathy Aas, Representing Xcel Energy; In its current state, we are opposed with the purchase power agreement, but with the proposed amendment, we would support it.

John Olson, Ottertail Power Company; we support this Bill with those amendments. Ottertail Power Company does business primarily by purchasing turn key operations.

Chairman Belter: Is there any other opposition? Is there any neutral testimony?

Cory Fong, Tax Commissioner: I just wanted to clarify a couple of things that came up in the questioning of Rep. Brandenburg. First off, I was involved in the original version of this legislation in 2005 when I was at the Commerce Dept. The whole reason that the purchase power agreement was put into that section was to create parameters on the lifetime of the reduction. And so I think what's being suggested by industry and Rep. Brandenburg is that, you know it creates a problem because there're some industries that are not using purchase power agreements to accomplish this and they feel like they would be discriminated against.

So again, we're not concerned about taking that language out, however, keep in mind what Rep. Brandenburg was suggesting that maybe a lifetime, a parameter on the reduction would

be wise, say 20 years which I believe the typical length of purchase of power agreement. And again that was the only reason to sell from 5 to the purchase of power agreement reference in statute was, was again to create parameter for how long the reduction would be in place. Rep. Pinkerton I think was getting at the tax. And this is a reduction in the taxable value. And just let me take you through the way that process works. If you start at market value for example, then you divide that in half and get the set value, you then times that by the taxable value, which this is addressing and then you take the taxable value times the actual mill rate to get the tax, and so there's a bit of a disconnect here on how much it would actually be in terms of actual savings and I'm going to identify Marcy Dickerson from the Property Tax division who might be able to clarify that in addition to what I just offered. The other thing that I wanted to address is the deadline that's in the current version. In 2005, there were some limitations put in so that it would spark construction. They had had their purchase power agreement in place by January 1, 2006. And they had to have construction started by July 1, 2006 in order to qualify for that reduced taxable value rate. And so the question came up of what would happen after 2011? Well those would revert back to 10%, which is the rate for centrally assessed property, so I just wanted to clarify that anything up to 2011, if they're starting construction would be at this reduced rate after that period it would revert back to 10%. I hope this sets out some of the parameters and history about why those graduated deadlines were in there of January 1, 2006 and 2011.

Marcy Dickerson, State Supervisor of Assessments; Basically say you started with a wind tower that's worth 2 million dollars. You'd multiply that times 50% to get your assessed value which would be 1 million dollars. Then by what level taxable value you're at, the 3% or the 1-1/2% or the 10% for other essentially assessed property would be multiplied times that 1 million dollars of assessed value. If you were at 10%, it would be about \$100,000 taxable

value. If you're 1-1/2% you're going to be at \$15,000. That would be multiplied by the local mill rate which would be 300 and some mills. The Statewide mill rate is 400 and something but in the rural areas, generally the mill rates are lower. That would be the result of your tax. Your taxable value times that local mill rate. That was just an example on a 2 million dollar investment.

Representative Pinkerton: So what would be the tax?

Marcy Dickerson: At 1-1/2%, set the value on that was \$15,000. About a third of \$15,000, probably about \$5,000 to \$6,000 because your mill rate, if it were 500 mills, it would be half of the taxable value. But you're mill rates probably going to be 300 and some in a Township so; it would be about 1/3 of your taxable value.

Representative Brandenburg: Normally out in the country you look at your mill rate, its 30 - 80, with the average about at 300 mills. In the City it's anywhere from 350 -400 mills.

Marcy Dickerson: Your average City mill's are now between 400-450 mills.

Representative Pinkerton: I thought that property taxes were pretty much of that \$20 of a thousand?

Marcy Dickerson: That is about right when you're looking at other property that doesn't have a special taxable value. Like commercial property ordinarily essentially assessed property is 10% of assessed value. So if you have a \$100,000 house, you got \$50,000 taxable value, you got assessed value times 10% gives you \$5,000 for commercial taxable values. You multiply that times 500 mills, you'd be at half the price, \$2,500. But if less than 500 mills, say 400 mills, it will work out to about 2% of your true and full value is what your tax will represent, but that's when you're looking at something where the taxable value is 10%. Residences; the taxable value is only 9%, so there a little less. Your residential property is running about 1.80% to 2.1% of market value, that's the effective tax rate. Your commercial property is running 2%-2-1/4%,

depending on the mill rate in the area. And the difference between them is the 9% residential taxable value and the 10% commercial taxable value.

Representative Pinkerton: \$20.00 per thousand still is a pretty close guess?

Marcy Dickerson: That's low on commercial and high on residential. It's right in the middle of them.

Representative Pinkerton: So the tax, if this was a \$2 million veterinary clinic out there, what would the tax be on it?

Marcy Dickerson: About 2% of \$2 million dollars, about \$40,000.

Representative Pinkerton: If we tax it at, if this was a wind tower taxed at 1-1/2 % of true and real value...

Marcy Dickerson: It's being taxed at 15% of what the veterinary clinic would be taxed for.

Representative Pinkerton: By this Bill they're saving about \$6,000 per tower?

Marcy Dickerson: All along since the first legislation was enacted, in 2001, there has been a preferential tax break for wind towers. They were originally put in the legislation at 3%, and in the last session, the ones that fit in that particular time frame were reduced to 1-1/2%. But basically the original concept was that they would save 70% of the tax compared to other commercial essentially assessed property. When they got reduced to the 1-1/2%, they're saving 85% of the tax compared to other commercial essentially assessed property.

Vice Chairman Drovda: If I had a 2 million dollar farm out there, what would my tax be under the same circumstances?

Marcy Dickerson: Again, you'd probably be at the lower rural mill rate, but you would be paying on the 10% taxable value, so you would be paying \$30,000.

Representative Froseth: Is there a sales tax exemption on the purchase of the equipment for the wind farms?

Marcy Dickerson: I would have to refer to someone else.

Dan Rouse, Tax Dept;

Representative Kelsh: A little more background, when we decided to tax all centrally assessed power plants at 10% and we enacted this law in 2001, because wind a mega watt rate of power only produces it's whole output about 30% of the time, so that's why we reduced it to 3% based on the output of power generated. Now with the cost going up, almost doubling since that was originally enacted. Any power plant construction enjoys a sales tax break and during the construction phase there's a sales tax exemption.

Representative Froseth: Then after January 2011, we'll have to either revisit this Bill or does it go to 10%?

Representative Kelsh: That was the sunset we put in at 2001.

Chairman Belter: Any other testimony on HB 1317? If not, we'll close the hearing on HB1317.

2007 HOUSE STANDING COMMITTEE MINUTES

Bill/Resolution No. 1317 B

House Finance and Taxation Committee

☐ Check here for Conference Committee

Hearing Date: February 6, 2007

Recorder Job Number: 2889

Committee Clerk Signature

Mickie Schmitt

Minutes:

Chairman Belter called the committee back to order.

Representative Headland: I'd like to move the Brandenburg amendments.

Representative Owens: Second it.

Representative Vig: Are they exactly the same as what the utility shareholders?

Representative Brandenburg: They're exactly the same, line for line.

Chairman Belter: Any discussion?

Representative Pinkerton: This is forever. There's no sunset.

Representative Kelsh: It's 2001.

Representative Pinkerton: My understanding was the 2011; this applies to those completed before 2011 so that the tax reduction is for the life of the equipment. For most economic development that you give tax abatement for, it's for 3, 5, or 10 years but not forever.

Representative Grande: Tax Commissioner Fong said that he didn't feel that this worked as a sunset, although Marcy felt it did, but I didn't understand which of what was being sunseted.

Representative Owens: Rep. Pinkerton is correct. That as long as you build it before, the way it's written right now, as long as you build it and complete construction before January 1, you

qualify. If you do it afterwards, you don't qualify. But if you do it before, it's forever right now, there is no sunset.

Vice Chairman Drovda: If we pass this Bill, then all existing wind towers if they were built before 2011, will have a 1-1/2 %? That's what it says.

Chairman Belter: I would interpret it to mean all of them that have been built during that time frame.

Representative Brandenburg: This does need to be addressed. That was not our intent.

Representative Froseth: Overstrike language on 14, 15, 16, 17, and 18. Those plants that were built in that time frame are under the 1-1/2% and they'll stay under that. So it wouldn't affect anything that's already in existence that's already at 1-1/2%

Representative Owens: That still only applies to wind turbines that have purchase power agreement. This, taking out the purchase power agreement that executed, will take care of all of those that were done before without a purchase power agreement. It's the ones that had one and they are already at 1-1/2% forever according to the information that was struck out. Now it adds all of the other ones in and there is no sunset, and for all new construction between now and January 1, they would fall into that regardless of purchase power agreement or not under the amendment and there's no sunset on that either.

Vice Chairman Drovda: Not only would that Bill apply to those of a purchase power agreement, it also restricted the construction is to get after April 30, 2005 and before July, so it was a narrow time frame. This is opening it up to everyone built before that's 100 watt.

Representative Grande: We have a couple of gaps in here also. So have any towers been built within ND without a purchase power agreement?

Representative Brandenburg: No there's not.

Representative Grande: In the overstrike, July 1, 2006 was the end time, but this next one doesn't go into effect until December 31, 2006, so anything built within that time frame then would now go into affect too. I don't know what was built in those last six months.

Representative Kelsh: Probably what we need is a little primer on how the agreement as to how it works and that is because they negotiate their power of purchase agreements with the utilities, generally is how it's been working. We have a developer and the utility and they negotiate that price over the lifetime of the project so if you put a sunset on this evaluation before the end of the power of purchase agreements and then renegotiate those contracts, sometime in the middle. It's not as if it applies forever, it's the lifetime of the projects and they can plan what the landowner is going get, what they would pay for the utilities for that power. So the sunset is January 1, 2011, so any projects built after that, unless we revisit this before then, will pay 10%.

Representative Owens: But the ones that were built before January 1, 2011 will forever have the 1-1/2% the way it's written now and if we put in there that after a certain date it goes to 3% or 10%, we sunset it out to where it changes. If it's already in the law, could they not then construct their agreements taking that into consideration.

Representative Brandenburg: Those projects that were already built, they're already grandfathered in. They already got a 3% or 1-1/2%. When we get to the 2011 date, then we deal with what are we going to do with that project tax? What is it going to be? Maybe we should change the construction of January 1, to July 1, 2007.

Chairman Belter: When a purchase power agreement, you make the assumption that if we pass this, they will pay 1-1/2% for the life of the purchase agreement.

Representative Kelsh: The reason why we want to take the purchase agreement out of there because of IOU's, now we get into ownership of the rent facilities themselves rather than just buy the power from the developer.

Representative Pinkerton: Could we add just a line to it, its construction completed after some date in 2007 that would prevent the other units from being added to this Bill, July 1 and then could we sunset this in 10 years after construction?

Representative Grande: I wouldn't mind changing the overstrike out of the 13 to 18 and changing the dates within there and eliminating the for which a purchase of power agreements, delete in there and that way we've got the time frames that seem to be in the discussion here.

Chairman Belter: I don't have a problem with the July 1, 2011.

Representative Kelsh: So it drops it to 1-1/2% for two more years and then it goes back to 3%.

Representative Grande: You could put 2011 in that line 17.

Representative Brandenburg: So what you're saying is that however on central assessed wind turbine electric generation has a capacity of 100 megawatts or more?

Representative Grande: Then jump over to has been...

Representative Brandenburg: Has been executed after July 1, 2007 to January 1, 2011.

Vice Chairman Drovdal: We got to take that language out in 20 and 21.

Representative Headland: Did you say Edgeley is at 3%? If we do that, won't we give a competitive advantage to these new towers over that old tower then?

Representative Brandenburg: No, any new construction will be at 1-1/2%. The old towers will stay where they are at.

Representative Headland: I'll withdraw my motion.

Representative Owens: I'll withdraw my second.

Page 5

House Finance and Taxation Committee

Bill/Resolution No. 1317 B

Hearing Date: February 6, 2007

Chairman Belter: Ok, we'll hold this until tomorrow. We'll close the hearing on HB1317.

2007 HOUSE STANDING COMMITTEE MINUTES

Bill/Resolution No. 1317 C

House Finance and Taxation Committee

☐ Check here for Conference Committee

Hearing Date: February 7, 2007

Recorder Job Number: 2990 & 2991 (last part)

Committee Clerk Signature

Mickie Schmidt

Minutes:

Chairman Belter opened the hearing on HB 1317 and Rep. Brandenburg proposed an amendment. The Chairman asked Rep. Kelsh to walk us through the amendment.

Representative Kelsh: After our discussion yesterday we thought we ought to have a beginning time so that if anything is built now, that they wouldn't take advantage of the ½%. So this states that starting July 1, 2007 any project that is built before July and January 1, 2011 would qualify for this property tax reduction. The way it's all references to power purchase agreement that we heard yesterday, the utilities, Xcel, Ottertail, MDU, would like to get into the ownership of wind farms. We just made reference to the life of the project which is from the time that they build it to the time that they decommission.

Representative Froseth: So now what we're creating then is that 2 tier taxation system, the ones that are already built and here which is 3 or 4 that will be assessed at 3% and any new coming on will be taxed at 1-1/2%?

Representative Kelsh: There are some that were built before the deleted language in this Bill that made reference to April 30 2005 to January 1, 2006, those have fallen and are being taxed at 1-1/2%. The ones before that are taxed at 3%.

Representative Froseth: It's kind of interesting after we finished hearing testimony in this Bill yesterday, I went out and checked my e-mail and one said a new wind generating farm near Center ND. I don't know that they have any clue about this Bill. Apparently the wind generating units are coming into the State. My first thought was, is this really necessary? They're coming anyway. How many do we have now, 6 or 7? I wonder if this incentive will bring more or are they coming anyway? Also they get sales tax exemption on all the equipment that they buy and I think they get an income tax deduction for depreciation. Is it really necessary to entice these companies to build wind generating facilities in ND?

Representative Brandenburg: Yes they are a very important part of this, and they knew about this Bill. They're anticipating that this project is not going to be started until after July 1, so they qualify for this. This is very, very important.

Chairman Belter: Some of these projects that are now being put in are being put in where there is transmission available. We're going to eventually get to the point where the new projects are going to need transmission lines with them and when we get to that point then I would think that then these things will really become a player because you'll not only have the wind farm that needs to be built, you got to have all of the transmission lines that go along with them which is a huge investment.

Representative Brandenburg: There's talk right now and being discussed about wind generation being built and also building new transmission. These other Bills being passed just isn't affecting wind energy but also affect coal, because coal needs the transmission to get out of the State.

Representative Grande: On these amendments, I thought we were going to be discussing the time frame and I don't see a time frame.

Chairman Belter: Your amendments aren't right?

Representative Brandenburg: I haven't had a chance to get my amendments ready. We've been up to Legislative Counsel twice.

There was general discussion between the committee about the amendment in correcting the amendment.

Representative Grande: On the third line of the amendments after the words "July 1 2007 must be valued at the current assessed value." I'm striking the word 3% and putting value at their or the current assessed value.

Chairman Belter: Would you like to get that clarified with John Walstad?

Representative Brandenburg: Yes.

Representative Grande: Before you go, I thought we had had discussion of what was over struck, 14-18 and whether or not we were going to try to put a new date in there so that we were covering these incoming projects specifically? Take the overstrikes off and change the date, and delete the power agreement. You're going to have to take off in line 15, the words, the comma, after more through the word agreement, take those words out, right?

Representative Owens: Actually it would be the comma after more for which power agreement, you strike the rest of that line then you come to line 16 and continue to strike there up to 2006, cause then you'd put in on which construction was begun at and that's where the date start. The dates on line 16 refer to the power purchase agreement, so we need to strike those as well.

Vice Chairman Drovdal: Are there any other comments on the proposed amendments for them to work on? Seeing none, I'll close the hearing on HB 1317.

CONTINUATION ON HB 1317, JOB # 2991:

Representative Froseth: Before they go to the Legislative Counsel on 1317, would they consider putting a year limit on that, like a 5 year limit? The reason I think there should be a limit on it is because, I don't know what the life is of these wind farms, I've heard something like 20 years. I think that Townships and Counties could be left with the possibility of a huge clean up if the company just walks away from his facilities. I've had some experience with some oil field skeletons lying around, especially Burke County and it's not pretty. There are spots all over throughout that County where there's corners filled with oil field trash that just sits there. County and Townships don't have the money to clean it up and the oil company that owned it just walked away from it and moved out of State or quit the business and there it sets. That's why I think there should be a time limit and maybe some of the property taxes could be dedicated to a clean up purpose after the time limit.

Representative Kelsh: Even though it's not referred to in this Bill, there are a couple of Bills in Natural Resources that deal with the decommissioning. And the study that we required to bonding, there's a fund that's created when they do a project to address your concerns.

Vice Chairman Drovdal: There's a time period where they have 2 summers to clean it up or it will be repossessed by the State and the State will use that fund to clean it up.

Representative Grande: A couple of things with that, the farmers are given about 4 thousand dollars a year for use of that piece of land and after 20 years of \$4,000, if they haven't saved enough money to clean up their own land, I think it's an issue for themselves, it's their land. These agreements that are set up in the time frame come July 1, 2007 to January 1, 2011, during that agreement period the 1.5 would stay in affect because that's in their agreement of the 20 year agreement of that contract. After the 2011 time, the construction portion of that goes back to 10% unless we readdress this issue. There are 2 different things that we're

talking about, when their agreement takes place in that time frame but that agreement will run 20 years of the life of that contract.

Representative Brandenburg: Dealing with the payments that are paid to land owners, they are getting \$4,000 for a 20 year purchase power agreement. They are getting \$120,000 over the life of that contract and that should offset that cost. You probably will be left with a hunk of cement, 25' by 25'.

Representative Owens: Rep. Grande, you were talking about in their agreements, they would have this 20 year agreement. What agreement are you talking about?

Representative Grande: The farmers sign an agreement with whoever puts that wind farm up.

Representative Owens: The farmers? That's all I need to know.

Representative Froseth: I can understand that the farmer will get \$80,000 to \$100,000, but a farmer has to rent one of those huge cranes to take that tower down, that money would be gone in a month. That's an expensive demolition project that's just as expensive to demolish it as it is to build it. I think what we're probably doing here today might have some long term consequences in 20 years from now.

Representative Pinkerton: I made some phone calls last night and the towers that they're tearing down in California, they're a 100 KW towers, and they are more expensive to take down than to put them up.

Representative Brandenburg: That's the key right there is that the companies that are taking them down, the old ones, they demolish it and replace it with more efficient wind towers, so they are not being abandoned, it's actually being reconstructed.

Chairman Belter: These are the new amendments?

Representative Grande: Do we have a clean Bill in front of us?

Representative Grande: I would like to move the unofficial amendments.

Representative Brandenburg: Second it.

Chairman Belter: Any discussion? If not, all in favor of the propose amendments signify by saying aye. The motion carries. What are your wishes on 1317?

Representative Brandenburg: I move a Do Pass as Amended.

Representative Kelsh: Second it.

Chairman Belter: Is there any discussion? If not will the clerk read the roll; 11-y; 3-n; 0-absent; Rep. Brandenburg will carry the Bill.

HB 1317 2-7-07 AN

#1

78277.0102
Title.

Prepared by the Legislative Council staff for
Representatives Brandenburg and S. Kelsh
February 6, 2007

PROPOSED AMENDMENTS TO HOUSE BILL NO. 1317

Page 1, line 9, after the boldfaced period insert "A centrally assessed wind turbine electric generation unit with a nameplate generation capacity of one hundred kilowatts or more on which construction is completed before July 1, 2007, must be valued at three percent of assessed value to determine taxable valuation of the property."

Page 1, line 11, remove "for which a purchase power agreement has been executed and"

Page 1, line 12, after "completed" insert "after June 30, 2007, and"

Page 1, line 18, remove ". This" and overstrike "reduced valuation applies for that"

Page 1, overstrike line 19

Page 1, remove lines 20 and 21

Renumber accordingly

2-7-07 AM

#2

Proposed Amendments to HB 1317- UNOFFICIAL

Page 1, line 9, after the boldfaced period insert "A centrally assessed wind turbine electric generation unit with a nameplate generation capacity of one hundred kilowatts or more on which construction is completed before July 1, 2007, must be valued at the current assessed value to determine taxable valuation of the property."

Page 1, line 11, remove "for which a purchase power agreement has been executed and"

Page 1, line 12, after "completed" insert "after June 30, 2007, and"

Page 1, line 13, remove the overstrike over "However, a"

Page 1, remove the overstrike over line 14

Page 1, line 15, remove the overstrike over "~~one hundred kilowatts or more for which~~"

Page 1, line 16, remove the overstrike over "~~construction is begun after~~" and insert immediately thereafter "July 1, 2007"

Page 1, line 17, remove the overstrike over "~~and before~~" and insert immediately thereafter "January 1, 2011" and remove the overstrike over "~~must be valued at one and one-half percent of assessed value to~~"

Page 1, line 18, remove the overstrike over "~~determine taxable valuation of the property and this~~"

Page 1, line 18, remove ". This" and overstrike "reduced valuation applies for that"

Page 1, overstrike line 19

Page 1, remove lines 20 and 21

Renumber accordingly

February 7, 2007

**House Amendments to HB 1317 (78277.0103) - Finance and Taxation Committee
02/07/2007**

Page 1, line 9, after the boldfaced period insert "A centrally assessed wind turbine electric generation unit with a nameplate generation capacity of one hundred kilowatts or more on which construction is completed before July 1, 2007, must be valued at the current assessed value to determine taxable valuation of the property."

Page 1, line 11, remove "for which a purchase power agreement has been executed and"

Page 1, line 12, after "completed" insert "after June 30, 2007, and"

Page 1, line 13, remove the overstrike over "~~However, a~~"

Page 1, remove the overstrike over line 14

Page 1, line 15, remove the overstrike over "~~one hundred kilowatts or more, for which~~"

Page 1, line 16, remove the overstrike over "~~construction is begun after~~" and after the sixth overstruck comma insert "July 1, 2007,"

Page 1, line 17, remove the overstrike over "~~and before~~", after the second overstruck comma insert "January 1, 2011,", and remove the overstrike over "~~must be valued at one and one-half percent of assessed value to~~"

Page 1, line 18, remove the overstrike over "~~determine taxable valuation of the property~~", remove ". This", and overstrike "reduced valuation applies for that"

Page 1, line 19, overstrike "property for the duration of the initial purchased power agreement for that generation unit"

Page 1, remove lines 20 and 21

Renumber accordingly

Date: 2-7-01
Roll Call Vote #: 1317

2007 HOUSE STANDING COMMITTEE ROLL CALL VOTES
BILL/RESOLUTION NO.

House _____ Finance & Tax _____ Committee

☐ Check here for Conference Committee

Legislative Council Amendment
Number _____

Action Taken Do Pass As Amended -

Motion Made By Rep. Brandenburg Seconded By Rep. Kelsh

Representatives	Yes	No	Representatives	Yes	No
Chairman Belter	✓		Rep. Froelich	✓	
Vice Chairman Drovdal	✓		Rep. Kelsh	✓	
Rep. Brandenburg	✓		Rep. Pinkerton		✓
Rep. Froseth		✓	Rep. Schmidt	✓	
Rep. Grande	✓		Rep. Vig	✓	
Rep. Headland	✓				
Rep. Owens	✓				
Rep. Weller	✓				
Rep. Wrangham		✓			

Total (Yes) 11 No 3

Absent 0

Floor
Assignment Rep. Brandenburg

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

REPORT OF STANDING COMMITTEE

HB 1317: Finance and Taxation Committee (Rep. Belter, Chairman) recommends AMENDMENTS AS FOLLOWS and when so amended, recommends **DO PASS** (11 YEAS, 3 NAYS, 0 ABSENT AND NOT VOTING). HB 1317 was placed on the Sixth order on the calendar.

Page 1, line 9, after the boldfaced period insert "A centrally assessed wind turbine electric generation unit with a nameplate generation capacity of one hundred kilowatts or more on which construction is completed before July 1, 2007, must be valued at the current assessed value to determine taxable valuation of the property."

Page 1, line 11, remove "for which a purchase power agreement has been executed and"

Page 1, line 12, after "completed" insert "after June 30, 2007, and"

Page 1, line 13, remove the overstrike over "~~However, a~~"

Page 1, remove the overstrike over line 14

Page 1, line 15, remove the overstrike over "~~one hundred kilowatts or more, for which~~"

Page 1, line 16, remove the overstrike over "~~construction is begun after~~" and after the sixth overstruck comma insert "July 1, 2007,"

Page 1, line 17, remove the overstrike over "~~and before~~", after the second overstruck comma insert "January 1, 2011,", and remove the overstrike over "~~must be valued at one and one-half percent of assessed value to~~"

Page 1, line 18, remove the overstrike over "~~determine taxable valuation of the property~~", remove ". This", and overstrike "reduced valuation applies for that"

Page 1, line 19, overstrike "property for the duration of the initial purchased power agreement for that generation unit"

Page 1, remove lines 20 and 21

Renumber accordingly

2007 SENATE FINANCE AND TAXATION

HB 1317

2007 SENATE STANDING COMMITTEE MINUTES

Bill/Resolution No. HB 1317

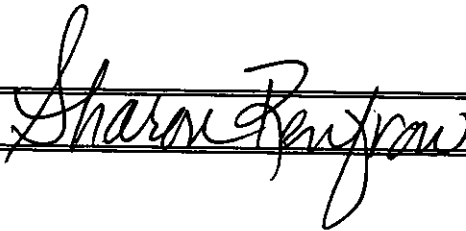
Senate Finance and Taxation Committee

☐ Check here for Conference Committee

Hearing Date: March 7, 2007

Recorder Job Number: # 4603

Committee Clerk Signature



Minutes:

Sen. Urlacher called the committee to order and opened the hearing on HB 1317 which relates to centrally assessed wind turbine electric generators.

Rep. Brandenburg: prime sponsor of the bill appeared in support stating this deals with property tax reduction and I handed out an amendment. (See attached) Basically we're dealing with reducing the property tax, back at the end of last session we reduced the property tax from 3% to 1 ½% for a period of time to allow wind farms to have the chance to be competitive with other states. In dealing with this at this time, we're making it permanent to 2011.

Sen. Urlacher: how does this compare with other types of energy development projects? Have you looked at how that blends in with tax breaks or whatever on other projects, other developments?

Answer: we're looking at a number of them, all these high costs have impacted every one of them and certainly we're trying to be in competition with other developments that are happening within the area. The biggest issue is if we're going to get these wind farms then we're going to have to be competitive with SD as well as MN because our load center is actually Mpls. We're trying to stay in tune with all of them so that everybody gets a piece of

this, there's a balance to it Mr. Chairman but we are trying to accommodate all industries as we do this.

Sen. Urlacher: now a lot of those companies are from out of state that are putting up those and does that, is the present day tax structure competitive then with these other states, would it bring them in or better?

Answer: that's why section 2 is here. Section 2 would allow Otter Tail or Basin or MDU or MinKota or Excel would decide to put them up themselves under their own arrangement without a purchase power agreement, they would then qualify for this property tax reduction.

Sen. Cook: when a wind farm is built are they subject to ND sales tax?

Answer: there's a sales tax exemption on the construction portion of wind farms that's been carried forward so that they would have a sales tax exemption during the construction.

Sen. Cook: the builders of the wind farm are allowed a tax credit when they initially finance a new wind farm, is that correct?

Answer: there's an income tax credit that's been out there right now and you'll see that coming forth in HB 1233 dealing with income tax credit, talking to that issue about looking at income tax credit for people within the energy family.

Sen. Cook: to expand that income tax credit? Yes Why? When we first looked at property tax reduction and looking at what the taxes are in MN and SD, this is really a very business like environment. In order for us to be competitive, we have to be competitive on income tax credits, sales tax reduction, property tax reduction and also the income tax credit because ND doesn't have mandates. This puts us on an even playing field to be able to have the wind towers attracted to ND because if you don't give incentives, they are not going to come.

Sen. Oehlke: can you tell me the life expectancy of a wind turbine or a turbine farm?

Answer: a wind farm, they say a life expectancy of a wind tower is 25 – 30 years, they look at a wind tower to be upgraded they may even last longer.

Sen. Horne: can you give us an update on the number of wind towers that we currently have in ND and the numbers that have been constructed since 2005, where are we at in wind tower production?

Answer: 2003 was Edgely, Cullum wind farm, then a wind farm put out in Oliver County and another wind farm expansion to that wind farm and also there is a number of wind towers around the State some single ones. I believe in the State there's 130 mega watts in that range. There are some big projects being planned throughout the State, I would predict that with the passage of these bills, there's probably 400 to 500 mega watts in the planning right now that could be announced with these bills that would make that announcement to happen.

Sen. Tollefson: what is the estimated cost per kilo watt hour on wind energy, what does it cost to generate one kilo watt hour?

Answer: 2.2 million

Sen. Tollefson: without these subsidies that you're talking about and that are available, what would the cost be? Would it price it out of market?

Answer: looking at this, wind power anywhere from 4 cents kilo watt hour to 6 cents kilo watt hour, looking at the incentives that come with it, you got the federal energy tax credit which really is 50%, involves over a 10 yr period and it reduces that on the federal side. On the State side we've got the property tax reduction which would reduce as well as a sales tax exemption and then we're also working on the income tax credit. Basically those two, and coal power is right around 2 cents, so without these incentives we're bringing wind power down with the incentives somewhere around 3, 3 ½ - 4 cents at the most. So wind energy is still more expensive than coal, coal is always your cheapest power.

Sen. Tollefson: the wind power generated in your part of the State is brought to the grid and of course eventually ends up at the market in MN or wherever, without the subsidy or tax breaks that wind power receives and perhaps we'll get more of, the mix would make ND power less palatable on the grid, or maybe I'm saying what you should be saying.

Answer: you're right on. Without these incentives, this ain't going to fly. It needs help to make it work.

John Olson: Ottertail Power Co. stating they support the bill and the amendment, we think the amendment improves the working effectiveness efficiency of what we're trying to do here.

Sen. Cook: didn't turn his mic on so can't really hear the question. (21.43)

Answer: we certainly are involved in renewable energy policy.

Sen. Tollefson: somewhere along the way, perhaps those incentives and breaks are going to have to go away, what would happen to the wind energy development in ND 10 years from now or whenever when the incentives are gone, are they going to be able to really sustain themselves?

Answer: in 2011 it terminates for this tax incentive for this reduction.

Sen. Horne: is it possible that the wind towers built in ND for Ottertail and Excel Energy can meet the requirements of MN mandates?

Answer: I'm not confident enough to answer that question, can't answer that.

Mark Nisbet: Excel Energy and we have had experience in the State, we have 18 turbines delivering 12 mega watts north of Velva and we are able to count those on that MN mandate over there. That's one of the opportunities that we're talking about, when we put that project up in ND because the incentives are higher in MN, it was actually more expensive in ND even though the productivity is high, so continues incentives like we're talking about are important but very clearly as these packages are on renewables are being put together the opportunity

for ND is selling into that MN market with the objectives as high as they are. With the good wind regime here in as maybe some of the better places in MN are used up, that advantage should swing our way.

Sen. Tollefson: without the incentives, the wind business generation would not be attractive on the grid anymore.

Answer: I would say that's true, but going forward there is some real concerns in our business that the costs of coal might go up as we're talking about the carbon impact. So currently as we provide we're looking at it being valuable for us to have a diverse source so we sort of spread those costs and those risks over a Rota source. Our company were pleased to be involved with wind, with hydro, with nuclear as well as coal. The opportunity to that mix of fuels and again we believe that the future of coal and the sheer abundance of it the need for base load that coal is going to be valuable to our mix for many years. Currently when there is that demand for wind it's a good opportunity for ND to position themselves to sell outside of the states boundaries.

Sen. Tollefson: loads are selected off of the grid and if certain energies and if certain energies at certain times of day are more attractive than at other times a day, it could be theoretically at least without any sustained benefits or subsidies we'll call it for this type of energy production, our energy would not be attractive, correct?

Answer: I would say probably as we're locking in with those incentives for the life of that contract and we're going to have our cost structure such that we'll pay for it during that period and we understand those costs with the incentives, at that point, we'll still have wind without any fuel costs will still be attractive at the end of the lifetime. Its very much a balancing act.

Sen. Urlacher: it appears as though we are competing with outside mandates and other states and rather than paying the price for kilo watt hour by the consumer we are paying it

through the tax system of incentives to meet that. It seems we need a balance and knowledge of what level those incentives are to meet the competition through mandates on the outside area. Am I reasonably correct in that? We're paying it through a tax incentive rather than a product.

John Olson: you are creating an environment in which companies like Ottertail look at those issues and they have to look at the competitive structures that exist in not only ND but in other states, your absolutely correct. I think you'll know from market forces, from the incentives that are available to the companies, your know from the proof in the pudding.

Bob Graveline: Utility Shareholders of ND appeared in support stating with Rep.

Brandenburg's amendments, power purchase agreements are out and so we would have no problem with this bill and the language in 1072 as long as the purchase power provision is taken out.

Sen. Tollefson: made a Motion to Move the Amendment 0202, seconded by Sen. Oehlke.

Voice vote: 7-0-0 Amendment carries.

Sen. Triplett: I would request a delay in terms of final action on this bill and my reason for that is that there is another bill related to wind energy on the House side that was killed and I would at least ask the chair to make a ruling as to whether it would be Germaine to amend some of that back in, its on the topic of wind energy and it was a bill that would set up some administrative rule making authority for the PSC regarding the decommissioning of wind energy and would request a day to be able to prepare an amendment to offer that as an addition to this bill.

2007 SENATE STANDING COMMITTEE MINUTES

Bill/Resolution No. Engrossed HB1317

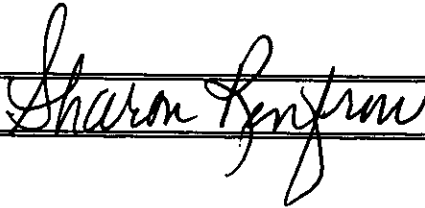
Senate Finance & Tax Committee

☐ Check here for Conference Committee

Hearing Date: March 12, 2007

Recorder Job Number: 4841 & 4922

Committee Clerk Signature



Minutes:

Senator Urlacher opened the hearing on HB 1317 relating to centrally assessed wind turbine electric generators; and to provide an effective date. There were 7 committee members present.

Senator Triplett introduced HB 1317 and brought a proposed amendment to Engrossed HB 1317. The amendment was drafted by Commissioner Susan Wefald and she will explain it. The amendment is taken from HB 1363, a bill that failed in the House.

Commissioner Susan Wefald testified in support of Engrossed HB 1317 with the addition of the proposed amendment by Senator Triplett. Her written testimony is enclosed along with a letter that answers many of the questions asked.

Senator Horne asked if the land owner would be responsible for decommissioned if the company does not do it. Why did the House have a problem with this bill?

Comm. Wefald said she did not hear all of the hearing but they discussed the bonding requirements and had concerns in that area. To have a bond there has to be a rule making. She stated that the Commission is very supportive of wind energy in ND but feels that companies should know what are expected of them.

Senator Triplett asked why it was important to have a law like this in place before the industry takes off.

Comm. Wefald said that it gives the companies some sense of certainty to know what is required in ND law and at the present they have to go to local township boards or county commission and each can put different requirements on them or none at all.

Senator Oehlke asked that if a tower has not operated for 12 months does it have to be decommissioned.

Comm. Wefald said if the turban has not been operating in the last 12 months it must be decommissioned unless they write a letter and get that time extended. This law just protects the State from having abandoned turbans on the prairie.

Senator Horne asked about cost of decommissioning these towers.

Comm. Wefald said that she had no true cost but she has worked with an Insurance Company and they have estimated ten to thirty thousand dollars per turban. Some people may say that is low but that is what the State of Minnesota used on one of their orders for decommissioning.

Senator Cook had some questions on easements and the landowner's responsibility.

He asked that if we pass this legislation will we trump those existing easements.

Comm. Wefald said in the question and answer letter it asks: What effect would this bill have on easement agreements that have already been signed? Answer: We believe this section of law would supersede previously signed easement agreements, since the state would now have power over decommissioning that would take place after this bill takes effect.

Senator Cook asked if they would consider language that would make it clear that this bill does not supersede previously signed easements.

Comm. Wefald explained why we need the amendment the way it is.

Senator Urlacher closed the hearing on Engrossed HB 1317.

Senator Triplett moved amendment 0203 to Engrossed HB 1317.

Senator Horne seconded the motion.

Senator Triplett said that this bill just sets the rules in place for companies coming. It gives us uniform rules across the state. I don't think landowners should be responsible for the businesses responsibility of decommissioning.

The chairman called for a voice vote. 7-0-0

Senator Triplett moved for a Do Pass as amended on Engrossed HB 1317.

Senator Tollefson seconded the motion. 7-0-0

PROPOSED AMENDMENTS TO ENGROSSED HOUSE BILL NO. 1317

Page 1, replace lines 9 through 22 with:

"Taxable valuation of centrally assessed wind turbine electric generators.
A centrally assessed wind turbine electric generation unit with a nameplate generation capacity of one hundred kilowatts or more, on which construction is completed before January 1, 2011, must be valued at three percent of assessed value to determine taxable valuation of the property. ~~However, a~~ except:

1. A centrally assessed wind turbine electric generation unit with a nameplate generation capacity of one hundred kilowatts or more, for which a purchased power agreement has been executed after April 30, 2005, and before January 1, 2006, and construction is ~~begun~~ completed after April 30, 2005, and before July 1, 2006, must be valued at one and one-half percent of assessed value to determine taxable valuation of the property and this reduced valuation applies for that property for the duration of the initial purchased power agreement for that generation unit; and
2. A centrally assessed wind turbine electric generation unit with a nameplate generation capacity of one hundred kilowatts or more, on which construction is completed after June 30, 2006, and before January 1, 2011, must be valued at one and one-half percent of assessed value to determine taxable valuation of the property."

Renumber accordingly

March 12, 2007

PROPOSED AMENDMENTS TO ENGROSSED HOUSE BILL NO. 1317

Page 1, line 1, after the first "to" insert "create and enact a new chapter to title 49 of the North Dakota Century Code, relating to the decommissioning of commercial wind energy facilities; to"

Page 1, after line 5, insert:

"SECTION 1. A new chapter to title 49 of the North Dakota Century Code is created and enacted as follows:

Definitions. In this chapter, unless the context otherwise requires:

1. "Commercial wind energy conversion facility" means a wind energy conversion facility of equal to or greater than five hundred kilowatts in total nameplate generating capacity.
2. "Commission" means the public service commission.
3. "Wind turbine" means a wind turbine of equal to or greater than five hundred kilowatts in total nameplate generating capacity.

Jurisdiction of the commission for decommissioning of commercial wind energy conversion facilities. The commission has continuing jurisdiction and authority over all persons and property necessary to enforce this chapter. The commission may:

1. Investigate all methods and practices of commercial wind energy conversion facilities, subject to this chapter.
2. Require the filing and determine the amount of a bond or other assurance, conditioned upon the full compliance with this chapter and the rules and orders of the commission. The commission may accept under the terms and conditions as the commission may prescribe a surety bond, collateral bond, self-bond, escrow account, or any alternative form of security or other financial assurance, or combination thereof, by which an owner or operator assures faithful performance of all requirements of this chapter and the rules and orders of the commission.
3. Regulate the decommissioning of a commercial wind energy conversion system.
4. Adopt and enforce rules and orders to effectuate the purposes and the intent of this chapter.

Decommissioning of commercial wind energy conversion facilities.

1. The owner and operator, at its expense, shall complete decommissioning of the commercial wind energy conversion facility, or individual wind turbines, within twelve months after the end of the useful life of the commercial wind energy conversion facility or individual wind turbines. The commercial wind energy conversion facility or individual wind turbine is presumed to be at the end of its useful life if no electricity is generated for a continuous period of twelve months unless a plan is developed and

submitted to the commission outlining the steps and schedule for returning the turbine to service.

2. Decommissioning of commercial wind energy conversion facilities includes removal of all physical material pertaining to the wind energy conversion facility to a depth of forty-eight inches [1.219 meters] beneath the soil surface and restoration of the disturbed area to substantially the same physical condition that existed immediately before construction.
3. Disturbed earth must be graded and reseeded, unless the landowner requests in writing that the access roads or other land surface areas not be removed and restored to substantially the same physical condition that existed immediately before construction.
4. The commission may require a performance bond to provide for the decommissioning and removal of a commercial wind energy conversion facility. The performance bond may be in the form of a surety bond, collateral bond, self-bond, cash, or any alternative form of security or other financial assurance as prescribed by the commission by rule. The commission shall consider the anticipated life of the project, the estimated decommissioning costs in current dollars, the method and schedule for updating the costs of decommissioning and restoration, the method of ensuring that funds will be available for decommissioning and restoration, and the anticipated manner in which the project will be decommissioned and the site restored when adopting rules that detail the bond requirements and when determining the amount of any required bond.
5. If the commercial wind energy conversion facility owner or operator does not complete decommissioning, the commission may take any action necessary to complete decommissioning, including requiring forfeiture of the bond. The execution of a participating landowner agreement constitutes 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 implement the decommissioning plan, including the exercise by the commission, commission staff, and contractors of the right of ingress and egress for the purpose of decommissioning the commercial wind energy conversion facility.
6. An easement or lease between a landowner and the owner or operator of a commercial wind energy facility or wind turbine may contain provisions for decommissioning that are more restrictive than this chapter."

Page 1, replace lines 9 through 22 with:

"Taxable valuation of centrally assessed wind turbine electric generators.

A centrally assessed wind turbine electric generation unit with a nameplate generation capacity of one hundred kilowatts or more, on which construction is completed before January 1, 2011, must be valued at three percent of assessed value to determine taxable valuation of the property. ~~However, a~~ except:

1. A centrally assessed wind turbine electric generation unit with a nameplate generation capacity of one hundred kilowatts or more, for which a purchased power agreement has been executed after April 30, 2005, and before January 1, 2006, and construction is ~~begun~~ completed after April 30, 2005, and before July 1, 2006, must be valued at one and one-half percent of assessed value to determine taxable valuation of the property and this reduced valuation applies for that property for the duration of the initial purchased power agreement for that generation unit; and

2. A centrally assessed wind turbine electric generation unit with a nameplate generation capacity of one hundred kilowatts or more, on which construction is completed after June 30, 2006, and before January 1, 2011, must be valued at one and one-half percent of assessed value to determine taxable valuation of the property."

Page 1, line 23, replace "This" with "Section 2 of this"

Renumber accordingly

Date: 3-12-07

Roll Call Vote #: _____

2007 SENATE STANDING COMMITTEE ROLL CALL VOTES
BILL/RESOLUTION NO. 1317

Senate Finance & Tax Committee

☐ Check here for Conference Committee

Legislative Council Amendment Number _____

Action Taken Do pass as amended

Motion Made By Senator Triplett Seconded By Senator Tollefson

Senators	Yes	No	Senators	Yes	No
Sen. Urlacher	✓		Sen. Anderson	✓	
Sen. Tollefson	✓		Sen. Horne	✓	
Sen. Cook	✓		Sen. Triplett	✓	
Sen. Oehlke	✓				

Total (Yes) 7 No 0

Absent 0

Floor Assignment Senator Tollefson

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

REPORT OF STANDING COMMITTEE

HB 1317, as engrossed: Finance and Taxation Committee (Sen. Urlacher, Chairman) recommends **AMENDMENTS AS FOLLOWS** and when so amended, recommends **DO PASS** (7 YEAS, 0 NAYS, 0 ABSENT AND NOT VOTING). Engrossed HB 1317 was placed on the Sixth order on the calendar.

Page 1, line 1, after the first "to" insert "create and enact a new chapter to title 49 of the North Dakota Century Code, relating to the decommissioning of commercial wind energy facilities; to"

Page 1, after line 5, insert:

"SECTION 1. A new chapter to title 49 of the North Dakota Century Code is created and enacted as follows:

Definitions. In this chapter, unless the context otherwise requires:

1. "Commercial wind energy conversion facility" means a wind energy conversion facility of equal to or greater than five hundred kilowatts in total nameplate generating capacity.
2. "Commission" means the public service commission.
3. "Wind turbine" means a wind turbine of equal to or greater than five hundred kilowatts in total nameplate generating capacity.

Jurisdiction of the commission for decommissioning of commercial wind energy conversion facilities. The commission has continuing jurisdiction and authority over all persons and property necessary to enforce this chapter. The commission may:

1. Investigate all methods and practices of commercial wind energy conversion facilities, subject to this chapter.
2. Require the filing and determine the amount of a bond or other assurance, conditioned upon the full compliance with this chapter and the rules and orders of the commission. The commission may accept under the terms and conditions as the commission may prescribe a surety bond, collateral bond, self-bond, escrow account, or any alternative form of security or other financial assurance, or combination thereof, by which an owner or operator assures faithful performance of all requirements of this chapter and the rules and orders of the commission.
3. Regulate the decommissioning of a commercial wind energy conversion system.
4. Adopt and enforce rules and orders to effectuate the purposes and the intent of this chapter.

Decommissioning of commercial wind energy conversion facilities.

1. The owner and operator, at its expense, shall complete decommissioning of the commercial wind energy conversion facility, or individual wind turbines, within twelve months after the end of the useful life of the commercial wind energy conversion facility or individual wind turbines. The commercial wind energy conversion facility or individual wind turbine is presumed to be at the end of its useful life if no electricity is generated

for a continuous period of twelve months unless a plan is developed and submitted to the commission outlining the steps and schedule for returning the turbine to service.

2. Decommissioning of commercial wind energy conversion facilities includes removal of all physical material pertaining to the wind energy conversion facility to a depth of forty-eight inches [1.219 meters] beneath the soil surface and restoration of the disturbed area to substantially the same physical condition that existed immediately before construction.
3. Disturbed earth must be graded and reseeded, unless the landowner requests in writing that the access roads or other land surface areas not be removed and restored to substantially the same physical condition that existed immediately before construction.
4. The commission may require a performance bond to provide for the decommissioning and removal of a commercial wind energy conversion facility. The performance bond may be in the form of a surety bond, collateral bond, self-bond, cash, or any alternative form of security or other financial assurance as prescribed by the commission by rule. The commission shall consider the anticipated life of the project, the estimated decommissioning costs in current dollars, the method and schedule for updating the costs of decommissioning and restoration, the method of ensuring that funds will be available for decommissioning and restoration, and the anticipated manner in which the project will be decommissioned and the site restored when adopting rules that detail the bond requirements and when determining the amount of any required bond.
5. If the commercial wind energy conversion facility owner or operator does not complete decommissioning, the commission may take any action necessary to complete decommissioning, including requiring forfeiture of the bond. The execution of a participating landowner agreement constitutes 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 implement the decommissioning plan, including the exercise by the commission, commission staff, and contractors of the right of ingress and egress for the purpose of decommissioning the commercial wind energy conversion facility.
6. An easement or lease between a landowner and the owner or operator of a commercial wind energy facility or wind turbine may contain provisions for decommissioning that are more restrictive than this chapter."

Page 1, replace lines 9 through 22 with:

"Taxable valuation of centrally assessed wind turbine electric generators.

A centrally assessed wind turbine electric generation unit with a nameplate generation capacity of one hundred kilowatts or more, on which construction is completed before January 1, 2011, must be valued at three percent of assessed value to determine taxable valuation of the property. ~~However, a except:~~

1. A centrally assessed wind turbine electric generation unit with a nameplate generation capacity of one hundred kilowatts or more, for which a purchased power agreement has been executed after April 30, 2005, and before January 1, 2006, and construction is ~~begun~~ completed after April 30, 2005, and before July 1, 2006, must be valued at one and one-half percent of assessed value to determine taxable valuation of the

~~property and this reduced valuation applies for that property~~ for the duration of the initial purchased power agreement for that generation unit; and

2. A centrally assessed wind turbine electric generation unit with a nameplate generation capacity of one hundred kilowatts or more, on which construction is completed after June 30, 2006, and before January 1, 2011, must be valued at one and one-half percent of assessed value to determine taxable valuation of the property."

Page 1, line 23, replace "This" with "Section 2 of this"

Renumber accordingly

2007 HOUSE FINANCE AND TAXATION

CONFERENCE COMMITTEE

HB 1317

2007 HOUSE STANDING COMMITTEE MINUTES

Bill/Resolution No. 1317

House Finance and Taxation Committee

☒ Check here for Conference Committee

Hearing Date: March 29, 2007

Recorder Job Number: 5612

Committee Clerk Signature

Mickie Schmidt

Minutes:

Conference Committee:

Representative Brandenburg opened the meeting, called the Conference Committee for HB 1317 to order and had the clerk take the roll; everyone was present.

Representative Brandenburg: We're dealing with HB 1317 and there were some amendments put on from the Senate. Would you want to explain your amendment to the house that would be in order?

Sen. Cook: I think the only thing these amendments do is put in this language for decommissioning of a wind turbine.

Sen. Anderson: In just looking at my notes, one of the reasons was in testimony was, we don't want ghost towns of wind generators when decommissioned. This amendment determines how to remove etc..., etc... but I can't explain it any further than that.

Representative Brandenburg: Does anybody else have anything to add from the Senate?

Sen. Oehlke: I don't how detailed you want to give the when the amendment itself was presented. It was presented from the Public Service Commission (PSC), and they indicated that they have the blessings of the wind folk. I found out later that that maybe wasn't completely accurate but, I don't have that in writing.

Representative Brandenburg: Ok, thank you. If I could just explain our position in the House; HB 1317 deals with property tax reduction. The decommissioning which was heard on Natural Resources in the House and this Bill was defeated in the house. But in conversation with the Senate, I realized there was more concern of decommissioning too and if I could make a recommendation that HB1456 which did pass the Senate and I have talked with Rep. Porter and that committee and he would not concur with the decommissioning. It is an issue. Both Rep. Kelsh and I have served on the energy committee which is in the neighborhood. More time is needed for details to be looked at and is this the right Bill to put it on? I don't think so. Does anyone else have any comments?

Representative Kelsh: I would concur with Rep. Brandenburg that decommissioning is an issue.

Sen. Cook: What is 1456 and are you proposing that this language be put onto 1456?

Representative Brandenburg: Yes, I know this issue is probably more important to the Senate than it is to the House. I'd like to tell you what I would recommend is to take decommissioning out of this Bill and put it into 1456, and that this be studied. Then we can come back next session with better language on how to handle decommissioning.

Sen. Cook: It's not such an issue of where it's at, it's an issue of whether it's actually going into law or is it going to be studied? That's your issue; you'd rather have a study?

Representative Brandenburg: Yes. The issue is that if it goes into law, I don't think they're ready for this. It needs some more time. I'm not saying it's completely wrong and I'm not saying it's completely right. What I'm saying is it needs to be studied and come back next session; it's in its infancy stage. There are costs there, there's no question about it. I don't like decommissioning but there's a lot of support for it and it's going to happen someday, but I don't think it belongs on 1317.

Representative Headland: I understand what you're saying about decommissioning. It was defeated in the House. And I think it would be a step forward to study it; however I don't think that we want to take this language in any shape, form or fashion and put on another study Bill. I think that you can have language to study the issue of decommissioning.

Sen. Oehlke: do we have any idea how much development will be happening in the next few years while this is being studied?

Representative Brandenburg: Rep. Kelsh, maybe you have a better handle on this.

Representative Kelsh: Your guess is as good as anyone. It could be 300 mw in a few years. It can go up pretty fast.

Sen. Oehlke: That's part of my concern because I know another issue that we're dealing with to wind. In my County, they are working on putting a decommissioning program for that company right now. So what if all these political subs around the State come up with their own and then meanwhile we're studying it and come up with a ... that's the main reason that I like it, the amendment that we put on it. I didn't bring up but I thought I liked the idea because it puts some of that responsibility away from the Counties.

There was general discussion between the committee members.

Sen. Cook: I think we've had a good discussion on this and maybe we just reserve ourselves to discuss this again. I think that is one of the issues. If we don't put something in law today, if we study it, what's going to happen to all of the contracts that are written through now and the fact that the time that there is something put into code? Are we going have to grandfather in? Will eventual language on decommissioning affect all of these and protect the land owners that are already out there now?

Representative Brandenburg: There's no question that this is an issue and it's getting bigger and bigger and we're going to have to deal with it. I'm just not sure if this is the time and place

Page 4

House Finance and Taxation Committee

Bill/Resolution No. HB 1317

Hearing Date: March 29, 2007

for it. We will adjourn this meeting and set up another conference committee on Monday or Tuesday.

2007 HOUSE STANDING COMMITTEE MINUTES

Bill/Resolution No. 1317

House Finance and Taxation Committee

☒ Check here for Conference Committee

Hearing Date: April 2, 2007

Recorder Job Number: 5652

Committee Clerk Signature

Mickie Schmidt

Minutes:

Conference Committee:

Chairman Brandenburg opened the conference committee to order for HB 1317 and asked the clerk to take the roll; everyone was present except Rep. Kelsh.

Chairman Brandenburg: We had the last meeting last Thursday and I guess you know where the House position is at and are wondering if the Senate had a chance to talk and I do have some amendments that I'd just like to show you concerning what we talked about. **(See Attachment #1)** These are about decommissioning and putting it on HB1456. I did visit with Sen. Ruby and Porter and he held the Bill and did not concur and he is setting up the conference committee and is more than willing to put this on HB 1456. And that's the sighting Bill and there's still going to be a study and decommissioning would be studied with this too. It will probably end up being studied by the energy committee. So this is what I have to offer you and see if this will be agreeable to the Senate.

Sen. Oehlke: I brought a copy of that. It just is an e-mail that came to us in the Senate. I assume you got a copy of it as well, maybe not. The thing that I was curious about is that this fellow mentions that Minnesota does require certain things relative to reclamation and decommissioning of turbine sites. I was kind of assured over and I've asked that question more

than once and people have said oh no, nobody does this. Now I'm thinking that maybe I need to find out from the State of Minnesota or have someone check for me or something because now I'm getting mixed messages and I'm not just going to believe an e-mail but on the other hand this fellow sounds very credible.

Chairman Brandenburg: That would be fine if you want to check that out but I do know Joe Richardson. There's one thing we visited about after our last meeting. In this amendment that was put on here about decommissioning, the one thing that hasn't been brought out is that not only would this deal with decommissioning, it also would deal with any size wind farm under 100 mw that came under the strings of the Public Service Commission (PSC). Right now if you're 100 mw or less, you would not fall under the strings of the PSC, so this amendment on decommissioning does put the PSC back in control of any size project to zero. You'd have to put all the regulatory issues that are required of the PSC, that's really what this issue is about. It's kind of tied the hands of developers that wanted a piece and that process can take quite a bit of time.

Sen. Cook: So your concern is not just the decommissioning but also that put in the amendment for the PSC?

Chairman Brandenburg: That is part of my concern because to be competitive with South Dakota (SD); SD's got 100 mw and ND needs to have that too. If you were a developer looking at where the wind farms or any energy facility would you go to SD or ND? That's the issue right there.

Sen. Cook: I think Sen. Oehlke brings up a good point, maybe our Intern could check with Minnesota and call NCSL, they may have already done a survey of States to see which States have decommissioning laws in the books. Maybe the Industry folks know, but let's just try to

get a handle on what else is out there that maybe even if there is some decommissioning language out there and find out what it says.

Chairman Brandenburg: I certainly agree with you. Are there any other questions at this point? If not we will close the conference committee hearing on HB 1317.

2007 HOUSE STANDING COMMITTEE MINUTES

Bill/Resolution No. 1317 CC

House Finance and Taxation Committee

☒ Check here for Conference Committee

Hearing Date: April 9, 2007

Recorder Job Number: 5825

Committee Clerk Signature

Mickie Schmidt

Minutes:

Conference Committee:

Chairman Brandenburg opened the committee conference on HB1317 and asked the clerk to take the roll; everyone was present.

Chairman Brandenburg: 4401.0450; we're talking about the rules that we got set up by the Public Utilities Commission in Minnesota. **(See attachment #1)** This came from LC and I also got rules that came from Massachusetts which were set up by Energy Resources. **(See attachment #2)** We also got an e-mail from the US Bureau of Land Management with their guidelines for decommissioning on federal lands. **(See attachment #3)** I also got an e-mail and documents about research from the American Wind Energy Association. **(See attachment #4)**, and the library from the National Wind Watch in Vermont, **(See attachment #5)** which I have handed out to you as I was giving you the information. LC received this and I'll just read this to you and it will explain it. **(See attachment #6)** (He read the e-mail) So what I'm seeing from other States, there's rules that have been set up by the PSC's, PUC's, or Energy Divisions of the states that address these issues. I'll open up for discussion now. Is that how you guys see the information?

Sen. Cook: Yes, that's how I read it, basically a few rules and the inside of what's to come of the future and that's incentives to get them to repower.

Sen. Anderson: I can't add anything to that.

Sen. Oehlke: They have more efficient ones in Europe. What's with that?

Sen. Cook: Are you going suggest then that we'd probably take a look at amending this language?

Chairman Brandenburg: That's kind of my thinking and PSC wants to change the rule and authority.

Sen. Cook: We have not discussed this at all but, I would be against at least looking at it and we can discuss it if you want to have some amendments drafted that we recede and further amend and I'd ask you to do it so that you can put the language in there that you would be comfortable with, present it to us, we'll have another meeting and we'll see if we can visit with Sen. Triplett, she's the one who is ahead of this.

Chairman Brandenburg: Sen. Cook, that's why I haven't sent the amendments over because I thought we should discuss it first before I put it in.

Sen. Oehlke: Relative to 1456, I was wondering about the how the rules affect the study or vice versa?

Chairman Brandenburg: we're going to have a study on decommissioning.

Sen. Oehlke: So we aren't confusing our issues?

Chairman Brandenburg: I'll get some amendments drawn up and we'll set up another meeting. I think we're on the right track. Is there any other discussion? We'll adjourn and meet again.

2007 HOUSE STANDING COMMITTEE MINUTES

Bill/Resolution No. 1317 CC

House Finance and Taxation Committee

☒ Check here for Conference Committee

Hearing Date: April 11, 2007

Recorder Job Number: 5904

Committee Clerk Signature	<i>Mickie Schmidt</i>
---------------------------	-----------------------

Minutes:

Committee Conference:

Chairman Brandenburg opened the Conference Committee on HB1317 and asked the clerk to take the roll; all were present.

Chairman Brandenburg: We have amendments in front of us dealing with decommissioning. Everybody's had a chance to look at them and I talked to the Public Service Commission (PSC) and visited with both Commissioner Wefald as well as Commissioner Clark. This amendment is dealing with exactly what Minnesota's doing dealing with rules. Commissioner Wefald has shared with I think everybody in the committee, their concern about 4902-2 and she'd like to have the "02" dropped and I guess I'll open that discussion up at this point and talk to you about that and see how the committee feels about it.

Sen. Oehlke: It did occur to me and thinking about the last 02 there, perhaps it would be a good idea to drop that just so that all of those various wind installations are treated equally, so we're not picking on the public guys.

Sen. Cook: I agree unless there's some reason why we shouldn't and I haven't heard any of that.

Chairman Brandenburg: Any comments from anyone else?

Rep. Headland: I do agree also.

Chairman Brandenburg: Ok, I guess it would be in order to, if everybody's in agreement with everything else, we just remove the 02 portion of it, and then I would ask for a motion.

Sen. Cook: I would move the amendment 78277.0205 with one exchange and that's the 02 be removed from the Century Code reference of 4902, the last 02 will be removed.

Rep. Headland: Second it.

Chairman Brandenburg: All in favor signify by saying aye. The motion carries. At this point we're all in agreement; I think it would be in order to move the amendment.

Sen. Cook: That's what I just did.

Chairman Brandenburg: Don't we have to have the Senate recede from their amendment?

Sen. Cook: I just did.

Chairman Brandenburg: We did all of that? Ok, we're done. If the motion was in order and that the clerk has the right motion, we're done.

Sen. Cook: I moved these amendments with the one change.

Chairman Brandenburg: If there's no further discussion at this time, we should be able to dissolve, correct?

Sen. Cook: Correct.

Chairman Brandenburg: Thank you all for your input and we'll move forward, the conference is adjourned.

REPORT OF CONFERENCE COMMITTEE (ACCEDE/RECEDE)

Bill Number 1317 (, as (re)engrossed):

Date: 3-29-07

Your Conference Committee House Finance & Tax

For the Senate:

For the House:

Roll:		YES / NO			YES / NO	Roll:
✓	Sen. Cook			Rep. Brandenburg		✓
✓	Sen. Oehlke (Elke)			Rep. Headland		✓
✓	Sen. Anderson			Rep. Kelsch		✓

recommends that the (SENATE/HOUSE) (ACCEDE to) (RECEDE from)

the (Senate/House) amendments on (SJ/HJ) page(s) _____ -- _____

_____ and place _____ on the Seventh order.

_____, adopt (further) amendments as follows, and place _____ on the Seventh order:

_____, having been unable to agree, recommends that the committee be discharged and a new committee be appointed.

((Re)Engrossed) _____ was placed on the Seventh order of business on the calendar.

DATE: _____

CARRIER: _____

No Action taken today

LC NO.	of amendment
LC NO.	of engrossment
Emergency clause added or deleted	
Statement of purpose of amendment	

MOTION MADE BY: _____

SECONDED BY: _____

VOTE COUNT YES NO ABSENT

**REPORT OF CONFERENCE COMMITTEE
(ACCEDE/RECEDE)**

Bill Number 1317 (, as (re)engrossed):

Date: 4-2-07

Your Conference Committee House Finance & Tax

For the Senate:

For the House:

Roll:

YES / NO

YES / NO

Roll:

✓	Sen. Cook			Rep. Brandenburg			✓
✓	Sen. DeHike			Rep. Headland			✓
✓	Sen. Anderson			Rep. Kelsch			

recommends that the (SENATE/HOUSE) (ACCEDE to) (RECEDE from)

the (Senate/House) amendments on (SJ/HJ) page(s) _____ -- _____

_____, and place _____ on the Seventh order.

_____, adopt (further) amendments as follows, and place _____ on the
Seventh order:

_____, having been unable to agree, recommends that the committee be discharged
and a new committee be appointed.

((Re)Engrossed) _____ was placed on the Seventh order of business on the calendar.

DATE: _____

CARRIER: _____

LC NO.	of amendment
LC NO.	of engrossment
Emergency clause added or deleted	
Statement of purpose of amendment	

MOTION MADE BY: _____

SECONDED BY: _____

VOTE COUNT ___ YES ___ NO ___ ABSENT

Revised 4/1/05

*No Action
taken!*

**REPORT OF CONFERENCE COMMITTEE
(ACCEDE/RECEDE)**

Bill Number 1317 (, as (re)engrossed):

Date: April 9, 2007

Your Conference Committee House Finance & Tax

For the Senate:

For the House:

YES / NO			YES / NO		
✓ Sen. Cook			Rep Brandenburg		✓
✓ Sen. Oehlke			Rep. Headland		✓
✓ Sen. Anderson			Rep. Kelsch		✓

recommends that the (SENATE/HOUSE) (ACCEDE to) (RECEDE from)

the (Senate/House) amendments on (SJ/HJ) page(s) _____ -- _____

_____, and place _____ on the Seventh order.

_____, adopt (further) amendments as follows, and place _____ on the Seventh order:

_____, having been unable to agree, recommends that the committee be discharged and a new committee be appointed.

((Re)Engrossed) _____ was placed on the Seventh order of business on the calendar.

DATE: _____

CARRIER: _____

LC NO.	of amendment
LC NO.	of engrossment
Emergency clause added or deleted	
Statement of purpose of amendment	

MOTION MADE BY: _____

SECONDED BY: _____

VOTE COUNT ___ YES ___ NO ___ ABSENT

Revised 4/1/05

*No Action
taken
today!*

CC: HB 1317
4-11-07

#1
78277.0205
Title.

Prepared by the Legislative Council staff for
Representative Brandenburg
April 10, 2007

PROPOSED AMENDMENTS TO ENGROSSED HOUSE BILL NO. 1317

That the Senate recede from its amendments as printed on pages 1046 and 1047 of the House Journal and pages 803-805 of the Senate Journal and that Engrossed House Bill No. 1317 be amended as follows:

Page 1, line 1, after the first "to" insert "create and enact a new subsection to section 49-02-02 of the North Dakota Century Code, relating to authority of the public service commission to adopt rules relating to decommissioning of commercial wind energy conversion facilities; to"

Page 1, after line 5, insert:

"SECTION 1. A new subsection to section 49-02-02 of the North Dakota Century Code is created and enacted as follows:

Adopt rules governing the decommissioning of commercial wind energy conversion facilities. The rules may address:

- a. The anticipated life of the project;
- b. The estimated decommissioning costs in current dollars;
- c. The method and schedule for updating the costs of the decommissioning and restoration;
- d. The method of ensuring that funds will be available for decommissioning and restoration; and
- e. The anticipated manner in which the project will be decommissioned and the site restored."

Page 1, line 23, replace "This" with "Section 2 of this"

Re-number accordingly

VR
4/11/07

PROPOSED AMENDMENTS TO ENGROSSED HOUSE BILL NO. 1317

That the Senate recede from its amendments as printed on pages 1046 and 1047 of the House Journal and pages 803-805 of the Senate Journal and that Engrossed House Bill No. 1317 be amended as follows:

Page 1, line 1, after the first "to" insert "create and enact a new section to chapter 49-02 of the North Dakota Century Code, relating to authority of the public service commission to adopt rules relating to decommissioning of commercial wind energy conversion facilities; to"

Page 1, after line 5, insert:

"SECTION 1. A new section to chapter 49-02 of the North Dakota Century Code is created and enacted as follows:

Power of commission to establish rules to decommission wind energy conversion facilities. The commission may adopt rules governing the decommissioning of commercial wind energy conversion facilities. The rules may address:

1. The anticipated life of the project;
2. The estimated decommissioning costs in current dollars;
3. The method and schedule for updating the costs of the decommissioning and restoration;
4. The method of ensuring that funds will be available for decommissioning and restoration; and
5. The anticipated manner in which the project will be decommissioned and the site restored."

Page 1, line 23, replace "This" with "Section 2 of this"

Renumber accordingly

REPORT OF CONFERENCE COMMITTEE
(ACCEDE/RECEDE)

Bill Number 1317 (, as (re)engrossed):

Date: April 11, 2007

Your Conference Committee House Finance & Tax

For the Senate:

For the House:

Roll:		Y	N	← vote →	Y	N	Roll:
✓	Sen. Cook						✓
✓	Sen. Oehlke						✓
✓	Sen. Anderson						✓

recommends that the (SENATE/HOUSE) (ACCEDE to) (RECEDE from)

the (Senate/House) amendments on (SJ/HJ) page(s) 1046 -- 1047

and place _____ on the Seventh order.

✓, adopt (further) amendments as follows, and place .0206 on the Seventh order:

_____ having been unable to agree, recommends that the committee be discharged and a new committee be appointed.

((Re)Engrossed) 1317 was placed on the Seventh order of business on the calendar.

DATE: April 11, 2007

HOUSE CARRIER: Rep. Brandenburg SENATE CARRIER: _____

LC NO.	of amendment
LC NO.	of engrossment
Emergency clause added or deleted	
Statement of purpose of amendment	

MOTION MADE BY: Sen. Cook
SECONDED BY: Rep. Headland
VOTE COUNT: 6 YES 0 NO 0 ABSENT

REPORT OF CONFERENCE COMMITTEE

HB 1317, as engrossed: Your conference committee (Sens. Cook, Oehlke, Anderson and Reps. Brandenburg, Headland, S. Kelsh) recommends that the **SENATE RECEDE** from the Senate amendments on HJ pages 1046-1047, adopt amendments as follows, and place HB 1317 on the Seventh order:

That the Senate recede from its amendments as printed on pages 1046 and 1047 of the House Journal and pages 803-805 of the Senate Journal and that Engrossed House Bill No. 1317 be amended as follows:

Page 1, line 1, after the first "to" insert "create and enact a new section to chapter 49-02 of the North Dakota Century Code, relating to authority of the public service commission to adopt rules relating to decommissioning of commercial wind energy conversion facilities; to"

Page 1, after line 5, insert:

"**SECTION 1.** A new section to chapter 49-02 of the North Dakota Century Code is created and enacted as follows:

Power of commission to establish rules to decommission wind energy conversion facilities. The commission may adopt rules governing the decommissioning of commercial wind energy conversion facilities. The rules may address:

1. The anticipated life of the project;
2. The estimated decommissioning costs in current dollars;
3. The method and schedule for updating the costs of the decommissioning and restoration;
4. The method of ensuring that funds will be available for decommissioning and restoration; and
5. The anticipated manner in which the project will be decommissioned and the site restored."

Page 1, line 23, replace "This" with "Section 2 of this"

Renumber accordingly

Engrossed HB 1317 was placed on the Seventh order of business on the calendar.

2007 TESTIMONY

HB 1317

#1

HB 1317-A
2-6-07 Am

HB-1317

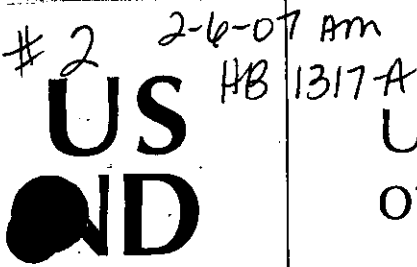
PROPOSED AMENDMENTS

Page 1, line 11 - remove the underlined words "for which a purchase power agreement has been executed and"

Page 1, line 18 - remove the words "This reduced valuation applies for that"

Delete lines 19, 20, and 21.

Renumber accordingly



Utility Shareholders of North Dakota

BOARD OF DIRECTORS

Bob Pile
Fargo

Harold Bruschwein
Wahpeton

Clarence Storseth
Dickinson

Karen Krebsbach
Minot

Larry Hanson
Williston

John M. Olson
Bismarck

Moine Gates
Grand Forks

[Redacted] Kunkel
Als Lake

Charles Axtman
Jamestown

Bob Graveline, President
Bismarck

HB-1317

House Finance and Taxation Committee

February 6, 2007

Mr. Chairman, members of the Committee, I'm Bob Graveline, President of the Utility Shareholders of North Dakota. The nearly 2,400 members of our association have the common interest of owning shares of stock in one of the state's regulated utility companies, Xcel Energy, MDU Resources Group, Inc., or Otter Tail Corporation.

We urge a DO NOT PASS recommendation on HB-1317 in its present form.

First, let me clearly state, the USND does not oppose the Legislative Assembly setting property taxes for centrally assessed wind farms at 1.5 % of assessed value.

What we oppose in HB-1317 is the establishment of a system of preferential taxation treatment for different types of project ownership. As currently written, there must be a "purchase power agreement" in place in order for the lower taxation rate to kick in. For independent power producers that choose to build and operate a wind farm in our state and sell their energy to a utility organization, that restrictive provision may make sense.

However, should a North Dakota shareholder owned utility company choose to build and operate a wind farm there would not be a "purchase power agreement". Any energy produced by such a wind farm would be transmitted to, and placed onto the utility company's operating system the same as energy generated from other sources.

We oppose the legislated preferential treatment for independent power producers as contained in this version of HB-1317.

As a solution to this problem, we offer the following amendments:

Page 1, line 11 – remove the underlined words "for which a purchase power agreement has been executed and"

Page 1, line 18 – remove the words "This reduced valuation applies for that"

Delete lines 19, 20, and 21.

Re-number accordingly

Mr. Chairman, members of the Committee, this concludes my testimony.

P.O. Box 1856
[Redacted], ND 58502
[Redacted] 258-8864
Fax 701-258-8865
1-800-981-5132
E-mail usnd@usnd.org
www.usnd.org

(H. B. 1363) - 13 17

Presented by: Susan Wefald, President
Public Service Commission

Before: House Natural Resources
Honorable Todd Porter

Date: January 25, 2007

TESTIMONY

Mr. Chairman and Members of the Committee, I am Commissioner Susan Wefald, President of the North Dakota Public Service Commission. The testimony that I am presenting is my own testimony, and not that of the whole Public Service Commission.

I am delighted that wind energy development is taking place in North Dakota. Last week the Commission was involved with a hearing in Ashley, North Dakota regarding transmission for 90 MW of wind development that will be constructed in North Dakota this year. Near Bismarck we can see two 50 MW wind farms, one near Wilton and one near Center. Minnesota Power announced this week it will be purchasing an additional 48 MW of wind power from Oliver Wind II, which means that an *additional* 32, one and a half MW wind turbines, will be located near Center.

These wind energy conversion facilities consist of huge towers that support the wind turbines. The towers are over 250 feet tall (taller than our capital building) and require huge cranes for construction. They are constructed of cement and steel. The turbine blades can be over 80 feet long. This bill addresses the decommissioning of these huge commercial wind energy conversion facilities when they are no longer needed and useful.

We do not want ghost towns of derelict wind towers littering our prairies when technology moves to new ways of doing business. We have all seen how wind energy technology has changed in the past 20 years. Already, 600 foot tall turbines with 200 foot blades, producing 5 MW of energy are being designed for use in Europe.

Let me lead you through the different sections of this bill.

First the Definitions:

Commercial wind energy conversion facility – This definition is meant to include all commercial size wind facilities in North Dakota.

Wind Turbine: For example, this definition would include the turbine constructed next to Interstate 94 near Valley City and the two wind turbines near Minot on Highway 83. These three turbines each generate approximately 900 kilowatts, or just under one MW.

The next section gives jurisdiction to the Public Service Commission. It is similar to jurisdiction given to the Industrial Commission for oil and gas industry decommissioning and states that the Commission may prescribe some type of bond or financial assurance for decommissioning.

Now we will move on to "Decommissioning of commercial wind energy conversion facilities."

Section 1, states that a commercial wind energy conversion facility must be decommissioned "if no electricity is generated for a continuous period of 12 months, unless a plan is developed and submitted to the commission outlining the steps and schedule for returning the turbine for service." The period of time included in this bill came from model ordinances in other states.

Section 2 and 3 includes language very similar to language used in Florida Power and Light easement agreements with landowners.

Section 4 states that the Commission may require a performance bond and that we could not even consider requiring a bond without a rulemaking proceeding. This section allows the Commission to thoughtfully consider the ramifications of requiring a bond or other financial assurance and if one is considered necessary, determining the correct time in the life cycle of the wind energy conversion facility to put it in place. For example, the Commission could consider waiting until the facility is 15 or 20 years old before putting in place some type of financial assurance for decommissioning.

Section 5 gives the Commission the authority to take action to decommission a facility if the owner or operator of the facility does not complete decommissioning.

Section 6 preserves landowner easement rights for having stricter provisions for decommissioning than are included in this chapter.

Why is this bill needed?

- Sample easement agreements show that responsibilities for decommissioning these huge wind energy conversion facilities will fall to the landowner if the company for some reason does not choose to act.
- Sample 40 year easement agreements show that wind energy conversion facilities could stand abandoned for years before decommissioning may occur.
- Our state has required reclamation of coal mines and removal of oil field structures. We have learned that owner operators of these facilities should be the responsible party for reclamation.
- Companies will know that the state expects the owner operator of wind energy conversion facilities to decommission wind energy conversion facilities in a timely manner.

This completes my testimony. I will be glad to answer any questions that the Committee may have.



Public Service Commission

State of North Dakota

COMMISSIONERS

Tony Clark, President
Susan E. Wefald
Kevin Cramer

Executive Secretary
Ilona A. Jeffcoat-Sacco

600 E. Boulevard Ave. Dept 408
Bismarck, North Dakota 58505-0480
web: www.psc.state.nd.us
e-mail: ndpsc@state.nd.us
TDD 800-366-6888
Fax 701-328-2410
Phone 701-328-2400

January 25, 2007

Honorable Todd Porter, Chairman
Natural Resources Committee
North Dakota House
600 East Boulevard Avenue
Bismarck, ND 58505

Re: House Bill 1506

Dear Chairman Porter:

Following is the information you requested.

Is a performance bond mandated by this bill? No.

What is the cost of a performance bond? Cost of the bond depends on many factors including the size of the wind farm, the amount of exposure per wind turbine, the financial health of the owner-operator, and the bond form. (See example below.)

Is it possible to get a performance bond to cover decommissioning costs?
Yes. (See example below.)

Example

Minnesota PUC has estimated in one order that decommissioning costs could be \$10,000-\$30,000 per turbine. This was for a 100 MW facility siting in 2006.

Information was obtained from Rollin Mehlhoff at Vaaler Insurance. This was an estimate from Roland, since no bond of this type has been issued in North Dakota. (Vaaler Insurance has issued insurance for wind towers in North Dakota)

Let's assume that there is a 90 MW facility with decommissioning costs estimated at \$10,000 per turbine:

If a bond was issued on a one year basis, and renewable each year, the bond might cost \$12 – 14.00 per thousand, for a company with a good financial status. Therefore, the owner operator might need to pay \$120 - \$140 per year per wind tower for a performance bond. Therefore, if a company had a wind farm with 60 turbines each generating 1.5 MW, the bond cost would be:

60 turbines x \$120 = \$7200 for \$600,000 for "performance of reclamation bond" per year for the 90 MW facility *(may not be needed in early years of a project)*
Or

60 turbines x \$140 = \$8400 for \$600,000 for "performance of reclamation bond" per year for the 90 MW facility *(may not be needed in early years of a project)*

Under HB 1363, the Commission would need to conduct a rulemaking to put any requirements for performance bonds in place. Under HB 1363, the commission is required to consider the anticipated life of the project, the estimated decommissioning costs in current dollars, the method and schedule for updating the costs of decommissioning and restoration, the method of ensuring that funds will be available for decommissioning and restoration, and the anticipated manner in which the project will be decommissioned and the site restored when adopting rules that detail the bond requirements and when determining the amount of any required bond.

Question: What effect would this bill have on easement agreements that have already been signed? We believe this section of law would supercede previously signed easement agreements, since the state would now have power over decommissioning that would take place after this bill takes effect.

Question: What performance bonding requirements are in place in the state of California for decommissioning of wind energy conversion facilities? I received the following information from Commissioner Dian Grueneich, California Public Utilities Commission: "Unfortunately I haven't been able to locate any information. All wind permitting is done at the local level so we suspect requirements vary. There are no (state) guidelines or requirements."

Question: What if a landowner wanted the responsibility to decommission the wind energy conversion facility? This bill puts the full responsibility for decommissioning on the owner-operator. Decommissioning can be expensive. For example, \$800,000 was added to the cost of the new Bank of North Dakota

building to allow for destruction of the old hotel on the site in Bismarck. Owner-operators should not be allowed to shift decommissioning costs onto a landowner, even upfront costs. The bill does not allow and should not allow "any agreement" that would be signed between the owner – operator and the landowner that decommissioning does not need to occur. Also, in some cases, the owner-operator might purchase land for wind energy development, and thus the bill should not allow the "landowner" to make the determination that decommissioning does not need to take place.

If you have any questions, please do not hesitate to call or e-mail me at swefald@nd.gov.

Best regards,



Susan E. Wefald
President

c: Representative Chuck Damschen, Vice Chair	Representative Darrell D. Nottestad
Representative Dawn Marie Charging	Representative Lyle Hanson
Representative Donald L. Clark	Representative Robert Hunsakor
Representative Duane DeKrey	Representative Scot Kelsh
Representative Dave Drovdal	Representative Shirley Meyer
Representative Curt Hofstad	Representative Dorvan Solberg
Representative George J. Keiser	

Attachment

Triplett, Constance T.

From: Wefald, Susan E.
Sent: Monday, March 12, 2007 12:16 PM
To: Triplett, Constance T.
Subject: Wind Decommissioning - Thank you!

Senator Triplett,

Thank you so much for your interest in "Decommissioning of Wind Turbines," and providing me with a chance to share information with members of the Tax and Finance Committee this morning.

I understand that Florida Power and Light offered testimony later in the morning. I visited with John DiDonato, FPL later this morning, and he questioned me about "whether corporate guarantees would be acceptable in this bill." I said "Yes, with the present language in the bill, the commission could consider corporate guarantees as part of a rule making resulting from this bill."

If you have any questions after hearing his testimony, please contact me.

#1

4-2-07

70754.0202

Title.

Prepared by the Legislative Council staff for
Representative Brandenburg

March 29, 2007

1317

PROPOSED AMENDMENTS TO ENGROSSED HOUSE BILL NO. 1456

That the Senate recede from its amendments as printed on page 1027 of the House Journal and page 780 of the Senate Journal and that Engrossed House Bill No. 1456 be amended as follows:

Page 1, line 1, after "siting" insert "and decommissioning"

Page 1, line 3, after "**SITING**" insert "**AND DECOMMISSIONING**"

Page 1, line 4, after "siting" insert "and decommissioning"

Page 1, line 8, remove "and"

Page 1, line 9, after "siting" insert "and reclamation of wind farm sites; and the decommissioning of wind farm sites"

Renumber accordingly

1317

#2 4-2-07

Oehlke, H. Dave

From: Joseph Richardson [joefargo@aol.com]
Sent: Thursday, March 29, 2007 5:32 PM
To: Cook, Dwight C.; Oehlke, H. Dave; Anderson, Arden
Subject: Senate Conferees on 1317

Dear Senators:

I urge you to keep the language related to decommissioning on HB1317. We learned a lesson with oil well decommissioning that we should take to heart with wind.

Why we need decommissioning legislation:

1. Some actual contracts say that if the company has not removed the equipment within one year of decommissioning the turbine, the landowner may do so and submit to the company a bill for reasonable expenses less reasonable salvage value. As a landowners, we bloody well know what this means. The company leaves the trash for us to clean up and then spend the next couple years (or until I give up) arguing over the definition of "reasonable" before we are compensated.
2. Company disappears in bankruptcy or otherwise. The company goes bankrupt and another company takes over their power purchase agreement. In the meantime solar technology has become so much less expensive than wind that wind farms are seemingly abandoned. Payments no longer are made to the landowner. Technically the company is in default. But, who really is the company and who really owns the equipment? It appears that their are liens and investors all standing in line. The landowner does not dare touch the equipment and has to hire an attorney to sort out who is responsible and who can take the equipment down.
3. Tornado goes through near the wind farm trashing the equipment. The company who owns the wind farm was actually a subsidiary of a subsidiary. The company collects the insurance and phone calls in attempt to find out who will clean up go unanswered.
4. The assertion that salvage value far exceeds the cost of cleaning up a site is completely without validation. This has never been proven. Minnesota requires escrow accounts, bonds or other provisions for reclamation, cleanup and salvage at a turbine site because the costs exceed or easily can exceed the value of salvage. Minnesota also requires wind farm owners to file expected costs related to clean up -- they are extensive.

Remember that today's contracts may be with honorable parties; however, it is irresponsible for officers or agents to contend that they will never sell a wind farm unless such is so declared in the contract itself (never is).

Joe Richardson
 200 8th St. S, #206
 Fargo, North Dakota 58103
 701-239-4848
 701-388-3266

I have been engaged in a number of regional renewable energy development and infrastructure policy committees. I was/am a member of the Windustry national wind

3/30/2007

lease/easement advisory committee.

3/30/2007

Minnesota Rules Table of Chapters

Table of contents for Chapter 4401

4401.0450 CONTENTS OF SITE PERMIT APPLICATION.

Subpart 1. **Applicant.** An applicant for a site permit must provide the following background information regarding the applicant:

A. a letter of transmittal signed by an authorized representative or agent of the applicant;

B. the complete name, address, and telephone number of the applicant and any authorized representative;

C. the signature of the preparer of the application if prepared by an agent or consultant of the applicant;

D. the role of the permit applicant in the construction and operation of the LWECS;

E. the identity of any other LWECS located in Minnesota in which the applicant, or a principal of the applicant, has an ownership or other financial interest;

F. the operator of the LWECS if different from the applicant; and

G. the name of the person or persons to be the permittees if a site permit is issued.

Subp. 2. Certificate of need or other commitment.

A. The applicant shall state in the application whether a certificate of need for the system is required from the Minnesota Public Utilities Commission and, if so, the anticipated schedule for obtaining the certificate of need. The board shall not issue a site permit for an LWECS for which a certificate of need is required until the applicant obtains the certificate, although the board may process the application while the certificate of need request is pending before the Public Utilities Commission.

B. The board may request the Public Utilities Commission to determine if a certificate of need is required for a particular LWECS for which the board has received a site permit application.

C. If a certificate of need is not required from the Public Utilities Commission, the applicant shall include with the application a discussion of what the applicant intends to do with the power that is generated. If the applicant has a power purchase agreement or some other enforceable mechanism for sale of the power to be generated by the LWECS, the applicant shall, upon the request of the chair, provide the EQB with a copy of the document.

Subp. 3. **State policy.** The applicant shall describe in the application how the proposed LWECS project furthers state policy to site such projects in an orderly manner compatible with environmental preservation, sustainable development, and the efficient use of resources.

Subp. 4. **Proposed site.** The applicant shall include the following information about the site proposed for the LWECS and any associated facilities:

A. the boundaries of the site proposed for the LWECS, which must be delineated on a United States Geological Survey Map or other map as appropriate;

B. the following characteristics of the wind at the proposed site:

- (1) interannual variation;
- (2) seasonal variation;
- (3) diurnal conditions;
- (4) atmospheric stability, to the extent available;
- (5) turbulence, to the extent available;
- (6) extreme conditions;
- (7) speed frequency distribution;
- (8) variation with height;
- (9) spatial variations; and
- (10) wind rose, in eight or more directions;

C. other meteorological conditions at the proposed site, including the temperature, rainfall, snowfall, and extreme weather conditions; and

D. the location of other wind turbines in the general area of the proposed LWECS.

Subp. 5. **Wind rights.** The applicant shall include in the application information describing the applicant's wind rights within the boundaries of the proposed site.

Subp. 6. **Design of project.** The applicant shall provide the following information regarding the design of the proposed project:

A. a project layout, including a map showing a proposed array spacing of the turbines;

B. a description of the turbines and towers and other equipment to be used in the project, including the name of the manufacturers of the equipment;

C. a description of the LWECS electrical system, including transformers at both low voltage and medium voltage; and

D. a description and location of associated facilities.

Subp. 7. **Environmental impacts.** An applicant for a site permit shall include with the application an analysis of the potential impacts of the project, proposed mitigative measures, and any adverse environmental effects that cannot be avoided, in the following areas:

A. demographics, including people, homes, and businesses;

B. noise;

C. visual impacts;

D. public services and infrastructure;

E. cultural and archaeological impacts;

F. recreational resources;

G. public health and safety, including air traffic, electromagnetic fields, and security and traffic;

H. hazardous materials;

I. land-based economics, including agriculture, forestry, and mining;

J. tourism and community benefits;

K. topography;

L. soils;

M. geologic and groundwater resources;

N. surface water and floodplain resources;

O. wetlands;

P. vegetation;

Q. wildlife; and

R. rare and unique natural resources.

The analysis of the environmental impacts required by this subpart satisfies the environmental review requirements of chapter 4410 and Minnesota Statutes, chapter 116D. No environmental assessment worksheet or environmental impact statement shall be required on a proposed LWECS project.

Subp. 8. **Construction of project.** The applicant shall describe the manner in which the project, including associated

facilities, will be constructed.

Subp. 9. **Operation of project.** The applicant shall describe how the project will be operated and maintained after construction, including a maintenance schedule.

Subp. 10. **Costs.** The applicant shall describe the estimated costs of design and construction of the project and the expected operating costs.

Subp. 11. **Schedule.** The applicant shall include an anticipated schedule for completion of the project, including the time periods for land acquisition, obtaining a site permit, obtaining financing, procuring equipment, and completing construction. The applicant shall identify the expected date of commercial operation.

Subp. 12. **Energy projections.** The applicant shall identify the energy expected to be generated by the project.

Subp. 13. **Decommissioning and restoration.** The applicant shall include the following information regarding decommissioning of the project and restoring the site:

- A. the anticipated life of the project;
- B. the estimated decommissioning costs in current dollars;
- C. the method and schedule for updating the costs of decommissioning and restoration;
- D. the method of ensuring that funds will be available for decommissioning and restoration; and
- E. the anticipated manner in which the project will be decommissioned and the site restored.

Subp. 14. **Identification of other permits.** The applicant shall include in the application a list of all known federal, state, and local agencies or authorities, and titles of the permits they issue that are required for the proposed LWECS.

STAT AUTH: MS s 116C.695

HIST: 26 SR 1394

Current as of 04/25/02

**Model Amendment to a Zoning Ordinance or By-law:
Allowing Wind Facilities by Special Permit**

Prepared by:
Massachusetts Division of Energy Resources
Massachusetts Executive Office of Environmental Affairs

1.0 Purpose

The purpose of this by-law is to provide by special permit for the construction and operation of wind facilities and to provide standards for the placement, design, construction, monitoring, modification and removal of wind facilities that address public safety, minimize impacts on scenic, natural and historic resources of the city or town and provide adequate financial assurance for decommissioning.

1.1 Applicability

This section applies to all utility-scale and on-site wind facilities proposed to be constructed after the effective date of this section. It does not apply to single stand-alone turbines under 60 kilowatts of rated nameplate capacity.

Any physical modifications to existing wind facilities that materially alters the type or increases the size of such facilities or other equipment shall require a special permit.

2.0 Definitions

Utility-Scale Wind Facility: A commercial wind facility, where the primary use of the facility is electrical generation to be sold to the wholesale electricity markets.

On-Site Wind Facility: A wind project, which is located at a commercial, industrial, agricultural, institutional, or public facility that will consume more than 50% of the electricity generated by the project on-site.

Height: The height of a wind turbine measured from natural grade to the tip of the rotor blade at its highest point, or blade-tip height.

Rated Nameplate Capacity: The maximum rated output of electric power production equipment. This output is typically specified by the manufacturer with a "nameplate" on the equipment.

Special Permit Granting Authority: The special permit granting authority shall be the board of selectmen, city council, board of appeals, planning board, or zoning administrator as designated by zoning ordinance or by-law for the issuance of special permits, or by this section for the issuance of special permits to construct and operate wind facilities.

Substantial Evidence: Such evidence as a reasonable mind might accept as adequate to support a conclusion.

Wind Facility: All equipment, machinery and structures utilized in connection with the conversion of wind to electricity. This includes, but is not limited to, transmission, storage, collection and supply equipment, substations, transformers, service and access roads, and one or more wind turbines.

Wind Monitoring or Meteorological Tower: A temporary tower equipped with devices to measure wind speeds and direction, used to determine how much wind power a site can be expected to generate.

Wind turbine: A device that converts kinetic wind energy into rotational energy that drives an electrical generator. A wind turbine typically consists of a tower, nacelle body, and a rotor with two or more blades.

3.0 General Requirements

3.1 Special Permit Granting Authority

No wind facility over 60 kilowatts of rated nameplate capacity shall be erected, constructed, installed or modified as provided in this section without first obtaining a permit from the special permit granting authority. The construction of a wind facility shall be permitted in any zoning district subject to the issuance of a Special Permit and provided that the use complies with all requirements set forth in sections 3, 4, 5 and 6. All such wind energy facilities shall be constructed and operated in a manner that minimizes any adverse visual, safety, and environmental impacts. No special permit shall be granted unless the special permit granting authority finds in writing that:

- (a) the specific site is an appropriate location for such use;
- (b) the use is not expected to adversely affect the neighborhood;
- (c) there is not expected to be any serious hazard to pedestrians or vehicles from the use;
- (d) no nuisance is expected to be created by the use; and
- (e) adequate and appropriate facilities will be provided for the proper operation of the use.

Such permits may also impose reasonable conditions, safeguards and limitations on time and use and may require the applicant to implement all reasonable measures to mitigate unforeseen adverse impacts of the wind facility, should they occur.

Wind monitoring or meteorological towers shall be permitted in all zoning districts subject to issuance of a building permit for a temporary structure and subject to reasonable regulations concerning the bulk and height of structures and determining yard-size, lot area, setbacks, open space, parking, and building coverage requirements

3.2 Compliance with Laws, Ordinances and Regulations

The construction and operation of all such proposed wind facilities shall be consistent with all applicable local, state and federal requirements, including but not limited to all applicable safety, construction, environmental, electrical, communications and aviation requirements.

3.3 Proof of Liability Insurance

The applicant shall be required to provide evidence of liability insurance in an amount and for a duration sufficient to cover loss or damage to persons and structures occasioned by the failure of the facility.

3.4 Site Control

At the time of its application for a special permit, the applicant shall submit documentation of actual or prospective control of the project site sufficient to allow for installation and use of the proposed facility. Documentation shall also include proof of control over setback areas and access roads, if required. Control shall mean the legal authority to prevent the use or construction of any structure for human habitation within the setback areas.

4.0 General Siting Standards

4.1 Height

Wind facilities shall be no higher than 400 feet above the current grade of the land, provided that wind facilities may exceed 400 feet if:

- (a) the applicant demonstrates by substantial evidence that such height reflects industry standards for a similarly sited wind facility;
- (b) such excess height is necessary to prevent financial hardship to the applicant, and
- (c) the facility satisfies all other criteria for the granting of a special permit under the provisions of this section.

4.2 Setbacks

Wind turbines shall be set back a distance equal to 1.5 times the overall blade tip height of the wind turbine from the nearest existing residential or commercial structure and 100 feet from the nearest property line and private or public way.

4.2.1 Setback Waiver

The special permit granting authority may reduce the minimum setback distance as appropriate based on site-specific considerations, if the project satisfies all other criteria for the granting of a special permit under the provisions of this section.

5.0 Design Standards

5.1 Color and Finish

The special permit granting authority shall have discretion over the turbine color, although a neutral, non-reflective exterior color designed to blend with the surrounding environment is encouraged.

5.2 Lighting and Signage

5.2.1 Lighting

Wind turbines shall be lighted only if required by the Federal Aviation Administration. Lighting of other parts of the wind facility, such as appurtenant structures, shall be limited to that required for safety and operational purposes, and shall be reasonably shielded from abutting properties.

5.2.2 Signage

Signs on the wind facility shall comply with the requirements of the town's sign regulations, and shall be limited to:

- (a) Those necessary to identify the owner, provide a 24-hour emergency contact phone number, and warn of any danger.
- (b) Educational signs providing information about the facility and the benefits of renewable energy.

5.2.3 Advertising

Wind turbines shall not be used for displaying any advertising except for reasonable identification of the manufacturer or operator of the wind energy facility.

5.2.4 Utility Connections

Reasonable efforts shall be made to locate utility connections from the wind facility underground, depending on appropriate soil conditions, shape, and topography of the site and any requirements of the utility provider. Electrical transformers for utility interconnections may be above ground if required by the utility provider.

5.3 Appurtenant Structures

All appurtenant structures to such wind facilities shall be subject to reasonable regulations concerning the bulk and height of structures and determining yard sizes, lot area, setbacks, open space, parking and building coverage requirements. All such appurtenant structures, including but not limited to, equipment shelters, storage facilities, transformers, and substations, shall be architecturally compatible with each other and shall be contained within the turbine tower whenever technically and economically feasible. Structures shall only be used for housing of equipment for this particular site. Whenever reasonable, structures should be shaded from view by vegetation and/or located in an underground vault and joined or clustered to avoid adverse visual impacts.

5.4 Support Towers

Monopole towers are the preferred type of support for the Wind Facilities.

6.0 Safety, Aesthetic and Environmental Standards

6.1 Emergency Services

The applicant shall provide a copy of the project summary and site plan to the local emergency services entity, as designated by the special permit granting authority. Upon

request the applicant shall cooperate with local emergency services in developing an emergency response plan.

6.1.1 Unauthorized Access

Wind turbines or other structures part of a wind facility shall be designed to prevent unauthorized access.

6.2 Shadow/Flicker

Wind facilities shall be sited in a manner that minimizes shadowing or flicker impacts. The applicant has the burden of proving that this effect does not have significant adverse impact on neighboring or adjacent uses through either siting or mitigation.

6.3 Noise

The wind facility and associated equipment shall conform with the provisions of the Department of Environmental Protection's, Division of Air Quality Noise Regulations (310 CMR 7.10), unless the Department and the Special Permit Granting Authority agree that those provisions shall not be applicable. A source of sound will be considered to be violating these regulations if the source:

- (a) Increases the broadband sound level by more than 10 dB(A) above ambient, or
- (b) Produces a "pure tone" condition – when an octave band center frequency sound pressure level exceeds the two adjacent center frequency sound pressure levels by 3 decibels or more.

These criteria are measured both at the property line and at the nearest inhabited residence. Ambient is defined as the background A-weighted sound level that is exceeded 90% of the time measured during equipment hours. The ambient may also be established by other means with consent from DEP. An analysis prepared by a qualified engineer shall be presented to demonstrate compliance with these noise standards.

The special permit granting authority, in consultation with the Department, shall determine whether such violations shall be measured at the property line or at the nearest inhabited residence.

6.4 Land Clearing, Soil Erosion and Habitat Impacts

Clearing of natural vegetation shall be limited to that which is necessary for the construction, operation and maintenance of the wind facility and is otherwise prescribed by applicable laws, regulations, and ordinances.

7.0 Monitoring and Maintenance

7.1 Facility Conditions

The applicant shall maintain the wind facility in good condition. Maintenance shall include, but not be limited to, painting, structural repairs, and integrity of security measures. Site access shall be maintained to a level acceptable to the local Fire Chief and Emergency Medical Services. The project owner shall be responsible for the cost of

maintaining the wind facility and any access road, unless accepted as a public way, and the cost of repairing any damage occurring as a result of operation and construction.

7.2 Modifications

All material modifications to a wind facility made after issuance of the special permit shall require approval by the special permit granting authority as provided in this section.

8.0 Abandonment or Decommissioning

8.1 Removal Requirements

Any wind facility which has reached the end of its useful life or has been abandoned shall be removed. When the wind facility is scheduled to be decommissioned, the applicant shall notify the town by certified mail of the proposed date of discontinued operations and plans for removal. The owner/operator shall physically remove the wind facility no more than 150 days after the date of discontinued operations. At the time of removal, the wind facility site shall be restored to the state it was in before the facility was constructed or any other legally authorized use. More specifically, decommissioning shall consist of:

- (a) Physical removal of all wind turbines, structures, equipment, security barriers and transmission lines from the site.
- (b) Disposal of all solid and hazardous waste in accordance with local and state waste disposal regulations.
- (c) Stabilization or re-vegetation of the site as necessary to minimize erosion. The special permit granting authority may allow the owner to leave landscaping or designated below-grade foundations in order to minimize erosion and disruption to vegetation.

8.2 Abandonment

Absent notice of a proposed date of decommissioning, the facility shall be considered abandoned when the facility fails to operate for more than one year without the written consent of the special permit granting authority. The special permit granting authority shall determine in its decision what proportion of the facility is inoperable for the facility to be considered abandoned. If the applicant fails to remove the wind facility in accordance with the requirements of this section within 150 days of abandonment or the proposed date of decommissioning, the town shall have the authority to enter the property and physically remove the facility.

8.3 Financial Surety

The special permit granting authority may require the applicant for utility scale wind facilities to provide a form of surety, either through escrow account, bond or otherwise, to cover the cost of removal in the event the town must remove the facility, of an amount and form determined to be reasonable by the special permit granting authority, but in no event to exceed more than 125 percent of the cost of removal and compliance with the additional requirements set forth herein, as determined by the applicant. Such surety will not be required for municipally or state-owned facilities. The applicant shall submit a fully inclusive estimate of the costs associated with removal, prepared by a qualified engineer. The amount shall include a mechanism for Cost of Living Adjustment.

9.0 Term of Special Permit

A special permit issued for a wind facility shall be valid for 25 years, unless extended or renewed. The time period may be extended or the permit renewed by the special permit granting authority upon satisfactory operation of the facility. Request for renewal must be submitted at least 180 days prior to expiration of the special permit. Submitting a renewal request shall allow for continued operation of the facility until the special permit granting authority acts. At the end of that period (including extensions and renewals), the wind facility shall be removed as required by this section.

The applicant or facility owner shall maintain a phone number and identify a responsible person for the public to contact with inquiries and complaints throughout the life of the project.

10.0 Application Process & Requirements

10.1 Application Procedures

10.1.1 General

The application for a wind facility shall be filed in accordance with the rules and regulations of the special permit granting authority concerning special permits.

10.1.2 Application

Each application for a special permit shall be filed by the applicant with the city or town clerk pursuant to section 9 of chapter 40A of the Massachusetts General Laws.

10.2 Required Documents

10.2.1 General

The applicant shall provide the special permit granting authority with ___ copies of the application. All plans and maps shall be prepared, stamped and signed by a professional engineer licensed to practice in Massachusetts. Included in the application shall be:

10.2.2 Name, address, phone number and signature of the applicant, as well as all co-applicants or property owners, if any.

10.2.3 The name, contact information and signature of any agents representing the applicant.

10.2.4 Documentation of the legal right to use the wind facility site, including the requirements set forth in 10.3.2(a) of this section

10.3 Siting and Design

The applicant shall provide the special permit granting authority with a description of the property which shall include:

10.3.1 Location Map (*Modify for On-Site Wind Facilities*)

Copy of a portion of the most recent USGS Quadrangle Map, at a scale of 1:25,000, showing the proposed facility site, including turbine sites, and the area within at least two miles from the facility. Zoning district designation for the subject parcel should be included; however a copy of a zoning map with the parcel identified is suitable.

10.3.2 Site Plan

A one inch equals 200 feet plan of the proposed wind facility site, with contour intervals of no more than 10 feet, showing the following:

- (a) Property lines for the site parcel and adjacent parcels within 300 feet.
- (b) Outline of all existing buildings, including purpose (e.g. residence, garage, etc.) on site parcel and all adjacent parcels within 500 feet. Include distances from the wind facility to each building shown.
- (c) Location of all roads, public and private on the site parcel and adjacent parcels within 300 feet, and proposed roads or driveways, either temporary or permanent.
- (d) Existing areas of tree cover, including average height of trees, on the site parcel and adjacent parcels within 300 feet.
- (e) Proposed location and design of wind facility, including all turbines, ground equipment, appurtenant structures, transmission infrastructure, access, fencing, exterior lighting, etc.
- (f) Location of viewpoints referenced below in 10.3.3 of this section.

10.3.3 Visualizations (*Modify for On-Site Wind Facilities*)

The special permit granting authority shall select between three and six sight lines, including from the nearest building with a view of the wind facility, for pre- and post-construction view representations. Sites for the view representations shall be selected from populated areas or public ways within a 2-mile radius of the wind facility. View representations shall have the following characteristics:

- (a) View representations shall be in color and shall include actual pre-construction photographs and accurate post-construction simulations of the height and breadth of the wind facility (e.g. superimpositions of the wind facility onto photographs of existing views).
- (b) All view representations will include existing, or proposed, buildings or tree coverage.
- (c) Include description of the technical procedures followed in producing the visualization (distances, angles, lens, etc...).

10.4 Landscape Plan (*Utility-Scale Wind Facilities Only*)

A plan indicating all proposed changes to the landscape of the site, including temporary or permanent roads or driveways, grading, vegetation clearing and planting, exterior lighting, other than FAA lights, screening vegetation or structures. Lighting shall be designed to minimize glare on abutting properties and except as required by the FAA be directed downward with full cut-off fixtures to reduce light pollution.

10.5 Operation & Maintenance Plan

The applicant shall submit a plan for maintenance of access roads and storm water controls, as well as general procedures for operational maintenance of the wind facility.

10.6 Compliance Documents

If required under previous sections of this by-law, the applicant will provide with the application:

- (a) a description of financial surety that satisfies 8.3 of this section,
- (b) proof of liability insurance that satisfies Section 3.3 of this section,
- (c) certification of height approval from the FAA,
- (d) a statement that satisfies Section 6.3, listing existing and maximum projected noise levels from the wind facility.

10.7 Independent Consultants – (*Utility-Scale Wind Facilities Only*)

Upon submission of an application for a special permit, the special permit granting authority will be authorized to hire outside consultants, pursuant to section 53G of chapter 44 of the Massachusetts General Laws. As necessary, the applicant may be required to pay not more than 50% of the consultant's costs.

#3 1317

HB 1317 CC 4-9

Johnson, Marilyn A.

From: Glen Andersen [glen.andersen@ncsl.org]
Sent: Thursday, April 05, 2007 11:36 AM
To: Johnson, Marilyn A.
Subject: Re: decommissioning wind turbines

Attachments: BLM Wind Decommissioning Program.pdf



NCSL

**BLM Wind
decommissioning Prc**

Marilyn,
Only 2 pieces of legislation have been introduced on decommissioning since 2001, including the ND bill I'm sure you are aware of:

ND H.B. 1363

DATE-INTRO: JANUARY 12, 2007, LAST-ACTION: FEBRUARY 9, 2007; Failed to pass HOUSE.,
Relates to the decommissioning of commercial wind energy facilities.,

VT H.B. 697

DATE-INTRO: FEBRUARY 3, 2004, LAST-ACTION: FEBRUARY 3, 2004; To HOUSE Committee on
NATURAL RESOURCES AND ENERGY. Requires all industrial wind generation sites to be subject
to review prior to and in addition to receiving a certificate of public good; requires a
permit for an industrial wind generation site to contain conditions which provide for and
fund decommissioning plans that will return the site back to its native state.

The U.S. Bureau of Land Management has guidelines for decommissioning on fed lands. A copy
of this publication is attached. Generally decommissioning is a case by case basis but
usually written into any contract.

Let me know if you need anything else.

Regards,

Glen Andersen
National Conference of State Legislatures 303.364.7700 ext. 1341 glen.andersen@ncsl.org
<http://www.ncsl.org/programs/esnr/toxics.htm>

----- Original Message -----

From: Kate Burke <mailto:kate.burke@ncsl.org>
To: 'Glen Andersen' <mailto:Glen.Andersen@ncsl.org>
Sent: Monday, April 02, 2007 12:21 PM
Subject: decommissioning wind turbines

What are other states doing on decommissioning wind turbines?

Marilyn Johnson
Legislative Council
North Dakota
marjohns@nd.gov
701.328.4900

#3

HB 1317 CC

4-9

APPENDIX B
THE BUREAU OF LAND MANAGEMENT'S PROPOSED
WIND ENERGY DEVELOPMENT PROGRAM

**APPENDIX B
THE BUREAU OF LAND MANAGEMENT'S (BLM'S) PROPOSED
WIND ENERGY DEVELOPMENT PROGRAM**

[The following text has been extracted from the BLM's Draft Programmatic EIS for wind energy development discussed in Section 1.3. This Draft EIS was released prior to the Ely District Draft RMP/EIS and will be finalized between the Draft and Final of the RMP/EIS. The Ely Proposed RMP and Final EIS will incorporate the final policies and best management practices from the Final EIS for the BLM's Wind Energy Development Program.]

The BLM proposes to adopt a number of policies and Best Management Practices as part of the proposed Wind Energy Development Program. These policies and Best Management Practices have been formulated on the basis of detailed, comprehensive analysis of the potential impacts of wind energy development under the Maximum Potential Development Scenario and relevant mitigation measures. Reviews of existing, relevant mitigation guidance and comments received during scoping also were conducted. On the basis of these reviews, the BLM identified programmatic policies and Best Management Practices that would be applicable to all wind energy development projects on BLM administered lands.

The BLM proposes that these policies and Best Management Practices would establish the minimum requirements for management of individual wind energy projects. The proposed policies address the administration of wind energy development activities and the proposed Best Management Practices identify required mitigation measures that would need to be incorporated into project-specific Plans of Development and rights-of-way grant stipulations. Additional mitigation measures will be applied to individual projects, in the form of stipulations in the rights-of-way grant, as appropriate to address site-specific and species-specific issues.

This section presents the proposed policies and Best Management Practices. Upon final approval of the BLM's proposed Wind Energy Development Program, the current Interim Wind Energy Development Policy (BLM 2002) would be revised to become the official Wind Energy Development Program.

Proposed Policies

The BLM proposes to adopt the following policies as part of its proposed Wind Energy Development Program.

- The BLM will not issue rights-of-way grants for wind energy development on lands on which wind energy development would conflict with the management objectives for other resources present at the site when those conflicts can not be mitigated. At a minimum, lands that will be excluded from wind energy development include Wilderness Areas, Wilderness Study Areas, National Monuments, National Conservation Areas, areas of critical environmental concern (ACECs), and Wild and Scenic River areas.¹ Additional areas of land may be excluded from wind energy development on the basis of

¹Although the constructed Maximum Potential Development Scenario did not exclude all of these lands at the screening level, they will be excluded from wind energy development.

APPENDIX B

- findings of resource impacts that cannot be mitigated and/or that conflict with existing and planned multiple-use activities.
- To the extent possible, wind energy projects will be developed in a manner that will not prevent other land uses, including fluid minerals extraction, grazing, recreational use, and other rights-of-way uses.
 - Entities seeking to develop a wind power project on BLM-administered lands shall consult with appropriate federal, state, and local agencies regarding specific projects as early in the planning process as appropriate to ensure that all potential siting, design, construction, operating, monitoring, and decommissioning issues and concerns are identified and adequately addressed.
 - The BLM will initiate government-to-government consultation with Tribal governments, Native communities, and Tribal individuals whose interests might be directly and substantially affected by activities on BLM administered lands as early in the planning process as appropriate to ensure that all concerns about siting, design, construction, operating, monitoring, and decommissioning activities are identified and adequately addressed.
 - Entities seeking to develop a wind power project on BLM-administered lands, in conjunction with BLM Washington Office and Field Office staff, shall consult with the Department of Defense as early in the planning process as appropriate regarding the location of wind power projects and turbine siting. This consultation shall occur simultaneously at both the installation/field level and the Pentagon/BLM Washington Office level.
 - Existing land use plans will be amended, as appropriate, to: 1) adopt provisions of the BLM's proposed Wind Energy Development Program, 2) identify land considered to be available for wind energy development, and 3) identify land that will not be available for wind energy development.
 - The level of environmental analysis to be required for individual wind power projects will be determined at the Field Office level. In certain instances, it may be determined that an environmental assessment is sufficient in lieu of an environmental impact statement (EIS). To the extent that the preliminary EIS addresses anticipated issues and concerns associated with an individual project, the BLM will tier off of the decisions embedded in the preliminary EIS and limit the scope of additional project-specific National Environmental Policy Act (NEPA) analyses. Mitigation measures may be consulted in determining site-specific requirements. Public involvement will be incorporated into all wind energy development projects to ensure that all concerns and issues are identified and adequately addressed.
 - The existing Categorical Exclusion applicable to the issuance of short-term rights-of-way or land use authorizations may be applicable to some site monitoring and testing activities. The relevant Categorical Exclusion, established for the BLM in the Department of the Interior, Departmental Manual 516, Chapter 11, Sec. 11.5, E(19) (DOI 2004), encompasses "Issuance of short-term (3 years or less) rights-of-way or land use authorizations for such uses as storage sites, apiary sites, and construction sites where the proposal includes rehabilitation to restore the land to its natural or original condition."

- Entities seeking to develop a wind power project on BLM-administered lands will develop a project-specific Plan of Development that incorporates all proposed Best Management Practices and, as appropriate, the requirements of other, existing and relevant BLM mitigation guidance. Additional mitigation measures will be incorporated into the Plan of Development and into the rights-of-way grant as project stipulations, as needed to address site-specific and species specific issues. The Plan of Development will include a site plan showing the locations of turbines, roads, power lines, other infrastructure, and other areas of short- and long-term disturbance.
- The BLM will incorporate the management goals and objectives of the National Sage-Grouse Habitat Conservation Strategy (BLM 2004g) and the associated Guidance for the Management of Sagebrush Plant Communities for Sage-Grouse Conservation (2004h) into the planning of proposed wind energy projects.
- The BLM will consider the visual resource values of the public lands involved in proposed wind energy projects, consistent with BLM Visual Resource Management policies and guidance. The BLM will work with the rights-of-way applicant to incorporate, to the extent possible, visual design considerations into the planning and design of the project to minimize potential visual impacts of the proposal and meet the Visual Resource Management objectives of the area.
- Operators of wind power facilities on BLM-administered lands must consult with the BLM and other appropriate federal, state, and local agencies regarding any planned upgrades or changes to the wind facility design or operation. Proposed changes of this nature may require additional environmental analysis and/or revision to the Plan of Development.
- The BLM's proposed Wind Energy Development Program will incorporate adaptive management strategies to ensure that potential adverse impacts of wind energy development are mitigated to the fullest extent possible. The programmatic policies and Best Management Practices be updated and revised as new data regarding the impacts of wind power projects become available. At the project-level, operators will be required to develop monitoring programs to evaluate the environmental conditions at the site through all phases of development, to establish metrics against which monitoring observations can be measured, identify potential mitigation measures, and establish protocols for incorporating monitoring observations and additional mitigation measures into standard operating procedures and project-specific stipulations.

Proposed Best Management Practices

The BLM proposes that the following Best Management Practices be applied to all wind energy development projects to establish environmentally sound and economically feasible mechanisms to protect and enhance natural and cultural resources. These Best Management Practices are limited to those measures that are applicable to all wind energy development projects. These Best Management Practices would be adopted as required elements of project-specific Plans of Development and/or as rights-of-way grant stipulations. They are categorized by development activity: site monitoring and testing, development of the Plan of Development, construction, operation, and decommissioning. The Best Management Practices

APPENDIX B

for development of the Plan of Development identify required elements of the Plan of Development needed to address potential impacts associated with subsequent phases of development.

Some of the proposed Best Management Practices address issues that are not unique to wind energy development but are more universal in nature, such as road construction and maintenance, wildlife management, hazardous materials and waste management, cultural resource management, and pesticide use and integrated pest management. For the most part, however, the level of detail provided by the Best Management Practices is less specific than that provided in other, existing BLM program-specific mitigation guidance documents. As required by proposed policy, mitigation measures identified in or required by these existing program-specific guidance documents would be applied, as appropriate, to wind energy development projects but they are not discussed in detail in the programmatic Best Management Practices proposed here.

In summary, stipulations governing specific wind energy projects would be derived from a number of sources: 1) the proposed Best Management Practices discussed in this section; 2) other, existing and relevant program-specific mitigation guidance and mitigation measures. Guidelines for applying and selecting project-specific requirements include determining whether the measure would: 1) ensure compliance with relevant statutory or administrative requirements, 2) minimize local impacts associated with siting and design decisions, 3) promote post-construction stabilization of impacts, 4) maximize restoration of previous habitat conditions, 5) minimize cumulative impacts, or 6) promote economically feasible development of wind energy on BLM land.

Site Monitoring and Testing

- The area disturbed by installation of meteorological towers (i.e., footprint) should be kept to a minimum.
- Existing roads and utility corridors should be used to the maximum extent feasible. If new roads are necessary, they should be designed and constructed to the appropriate standard.
- Meteorological towers should not be located in or near sensitive habitats and in areas where ecological resources known to be sensitive to human activities are present. Installation of towers should be scheduled to avoid disruption of wildlife reproductive activities or other important behaviors.

Plan of Development Preparation

General

- The BLM and operators should contact appropriate agencies, property owners, and other stakeholders early in the planning process to identify potentially sensitive land uses and issues, rules that govern wind energy development locally, and land use concerns specific to the region.
- Available information describing the environmental and sociocultural conditions in the vicinity of the proposed project should be collected and reviewed as needed to predict potential impacts of the project.

- The project should be planned to minimize or mitigate impacts to wildlife, habitat, visual resources, surface water resources, cultural and historical resources, other valued resources, and other land use.
- The Federal Aviation Administration-required notice of proposed construction should be made as early as possible to identify any air safety measures that will be required.
- To plan for efficient use of the land, necessary infrastructure requirements should be consolidated wherever possible, and current transmission and market access should be evaluated carefully.
- The project should be planned to utilize existing roads and utility corridors to the maximum extent feasible, and minimize the number and length/size of roads, lay-down areas, and borrow areas.
- A monitoring program shall be developed to ensure that environmental conditions are monitored during the construction, operations, and decommissioning phases. The monitoring program should incorporate adaptive management strategies to ensure that potential adverse impacts of wind energy development are mitigated to the fullest extent possible throughout the life of the project. The monitoring program should identify the monitoring requirements for each environmental resource present at the site, establish metrics against which monitoring observations can be measured, identify potential mitigation measures, and establish protocols for incorporating monitoring observations and additional mitigation measures into standard operating procedures and Best Management Practices.
- "Good housekeeping" procedures should be developed to ensure that during operations the site will be kept clean of debris, fugitive trash or waste, and graffiti; to prohibit scrap heaps and dumps; and to minimize storage yards.

Wildlife

- Operators should review existing information on species and habitats in the vicinity of the project area to identify potential concerns.
- Operators should conduct surveys for federally and/or state-protected species and other species of concern within project area and, to the extent feasible, design the project to minimize or mitigate impacts to these resources.
- Operators should identify important, sensitive, or unique habitats in the vicinity of the project and, to the extent feasible, design the project to minimize or mitigate impacts to these habitats (e.g., locate the turbines and ancillary facilities in the least environmentally sensitive areas; i.e., away from riparian habitats, streams, wetlands, drainages, or critical wildlife habitats).
- Operators should evaluate avian and bat use of the project area and, to the extent feasible, design the project to minimize or mitigate the potential for bird and bat strikes. Scientifically rigorous avian and bat

APPENDIX B

use surveys should be conducted; the amount and extent of ecological baseline data required should be determined on a project basis.

- The location of turbines in areas with high bird usage, in known bird migration pathway; near wetlands and other bird-rich habitats, and in areas with a high incidence of fog, mist, low cloud ceilings, and low visibility should be avoided.
- Turbines should be configured in order to avoid landscape features known to attract raptors.
- Operators should determine the presence of bat colonies and avoid placing turbines near known bat hibernation, breeding, and maternity/nursery colonies, in known migration corridors, or in known flight paths between colonies and feeding areas.
- Operators should determine the presence of active raptor nests (i.e., raptor nests used during the breeding season). Measures to reduce raptor use at a project site (e.g., minimize road cuts, maintain either no vegetation or nonattractive plant species around the turbines) should be considered.
- A habitat restoration/management plan should be developed to minimize or mitigate negative impacts on vulnerable wildlife while maintaining or enhancing habitat values for other species. The plan should identify revegetation, soil stabilization, and erosion reduction measures that should be implemented to ensure that all temporary use areas are restored. The plan should require that restoration occur as soon as possible after completion of activities to reduce the amount of habitat converted at any one time and to speed up the recovery to natural habitats.
- Procedures should be developed to mitigate potential impacts to special status species. Such measures could include avoidance, relocation of project facilities or laydown areas, and/or relocation of biota.
- Facilities should be designed so that they cannot be used as perching or nesting substrates by birds. For example, modified power poles should be required to prevent raptor electrocutions and perching.

Visual Resources

- The public should be involved and informed on the visual site design elements of the proposed wind energy facilities. Possible approaches include conducting public forums for disseminating information, offering organized tours of operating wind developments, and using computer simulation and visualization techniques in public presentations.
- Turbine arrays and turbine design should be integrated with the surrounding landscape. Design elements to be addressed include clustering of turbines, visual uniformity, use of tubular towers, proportion and color of turbines, nonreflective paints, and prohibition of commercial messages on turbines.

- Other site design elements should be integrated with the surrounding landscape. Elements to address include minimizing the profile of the ancillary structures, burial of cables, prohibition of commercial symbols, and security lighting. Regarding lighting, efforts should be made to minimize the need for and amount of lighting on ancillary structures.

Roads

- An access road siting and management plan should be prepared incorporating existing BLM standards regarding road design, construction, and maintenance such as those described in the BLM 9113 Manual (BLM 1985) and the Surface Operating Standards for Oil and Gas Exploration and Development (RM RCC 1989) (i.e., the Gold Book).

Transportation

- A comprehensive Transportation Plan should be developed, particularly for the transport of turbine components, main assembly cranes, and other large pieces of equipment. The plan should consider specific object sizes, weights, origin, destination, and unique handling requirements and should evaluate alternative transportation approaches. In addition, the process to be used to comply with unique state requirements and to obtain all necessary permits should be clearly identified.
- A Traffic Management Plan should be prepared for the site access roads to ensure that no hazards would result from the increased truck traffic and that traffic flow would not be adversely impacted. This plan should incorporate measures such as informational signs, flaggers when equipment may result in blocked throughways, and traffic cones to identify any necessary changes in temporary lane configuration.

Noise

- Proponents of a wind energy development project should take measurements to assess the existing background noise levels at a given site and compare them with the anticipated noise levels associated with the proposed project.

Noxious Weeds and Pesticides

- Operators should develop a plan for control of noxious weeds and invasive plants which could occur as a result of new surface disturbance activities at the site. The plan should address monitoring, education of personnel on weed identification, the manner in which weeds spread, and methods for treating infestations. The use of certified weed-free mulching and the cleaning of vehicles prior to arrival at a location to avoid the introduction of noxious weeds should be required.
- If pesticides are used on the site, an integrated pest management plan should be developed to ensure that applications will be conducted within the framework of the BLM and Department of the Interior policies and entail the use of only U.S. Environmental Protection Agency registered pesticides.

APPENDIX B

Pesticide use should be limited to nonpersistent, immobile pesticides and should only be applied in accordance with label and application permit directions and stipulations for terrestrial and aquatic applications.

Cultural/Historical Resources

- The BLM should consult with Native American governments early in the planning process to identify issues regarding the proposed wind energy development, including issues related to the presence of cultural properties, access rights, disruption to traditional cultural practices, and impacts to visual resources important to the Tribe(s).
- The presence of archaeological sites and historic properties in the area of potential effect should be determined on the basis of a records search of recorded sites and properties in the area and/or an archaeological survey. Archaeological sites and historic properties present in the area of potential effect should be reviewed to determine whether they meet the criteria of eligibility for listing on the National Register of Historic Places.
- If cultural resources are present at the site, or if areas with a high potential to contain cultural material have been identified, a cultural resources management plan should be developed. This plan should address mitigation activities to be taken for cultural resources found at the site. Mitigation options include avoidance of the area, archaeological survey and excavation (as warranted), and monitoring. If an area exhibits a high potential, but no artifacts were observed during an archaeological survey, monitoring by a qualified archaeologist could be required during all excavation and earthmoving in the high-potential area. A report needs to be prepared documenting these activities. The cultural resources management plan also should: 1) establish a monitoring program, 2) identify measures to prevent potential looting/vandalism or erosion impacts, and 3) address the education of workers and the public to make them aware of the consequences of unauthorized collection of artifacts and destruction of property on public land.

Paleontological Resources

- Operators should determine whether paleontological resources exist in a project area on the basis of the sedimentary context of the area, a records search for past paleontological finds in the area, and/or a paleontological survey.
- If paleontological resources are present at the site, or if areas with a high potential to contain paleontological material have been identified, a paleontological resources management plan should be developed. This plan should include a mitigation plan for collection of the fossils; mitigation could include avoidance, removal of fossils or monitoring. If an area exhibits a high potential but no fossils were observed during survey, monitoring by a qualified paleontologist could be required during all excavation and earthmoving in the sensitive area. A report needs to be prepared documenting these activities. The paleontological resources management plan also should: 1) establish a monitoring program, 2) identify measures to prevent potential looting/vandalism or erosion impacts, and 3) address

the education of workers and the public to make them aware of the consequences of unauthorized collection of fossils on public land.

Hazardous Materials and Waste Management

- Operators should develop a hazardous materials management plan addressing storage, use, transportation, and disposal of each hazardous material anticipated to be used at the site. The plan should identify all hazardous materials that would be used, stored, or transported at the site. It should establish inspection procedures, storage requirements, storage quantity limits, inventory control, nonhazardous product substitutes, and disposition of excess materials. The plan also should identify requirements for notices to federal and local emergency response authorities and include emergency response plans.
- Operators should develop a waste management plan identifying the waste streams that are expected to be generated at the site and addressing hazardous waste determination procedures, waste storage locations, waste-specific management and disposal requirements, inspection procedures, and waste minimization procedures.
- Operators should develop a spill prevention and response plan identifying where hazardous materials and wastes are stored on site, spill prevention measures to be implemented, training requirements, appropriate spill response actions for each material or waste, the locations of spill response kits on site, a procedure for ensuring that the spill response kits are adequately stocked at all times, and procedures for making timely notifications to authorities.

Storm Water

- Operators should develop a storm water management plan for the site to ensure compliance with applicable regulations and prevent off-site migration of contaminated storm water or increased soil erosion.

Human Health and Safety

- A safety assessment should be conducted to describe potential safety issues and the means that would be taken to mitigate them, including issues such as site access, construction, safe work practices, security, heavy equipment transportation, traffic management, emergency procedures, and fire control.
- A health and safety program should be developed to protect both workers and the general public during construction, operation, and decommissioning of a wind energy project. Regarding occupational health and safety, the program should identify all applicable federal and state occupational safety standards, establish safe work practices for each task (e.g., requirements for personal protective equipment and safety harnesses, Occupational Safety and Health Administration standard practices for safe use of explosives and blasting agents, measures for reducing occupational electromagnetic field exposures), and define safety performance standards (e.g., electrical system standards). The program should

APPENDIX B

include a training program to identify hazard training requirements for workers for each task and establish procedures for providing required training to all workers. Documentation of training and a mechanism for reporting serious accidents to appropriate agencies should be established.

- Regarding public health and safety, the health and safety program should establish a safety zone or setback from residences, roads, and other public access areas that is sufficient to prevent accidents resulting from various hazards. It should identify requirements for temporary fencing around staging areas, storage yards, and excavations during construction or decommissioning activities. It also should identify measures to be taken during the operations phase to limit public access to facilities (e.g., permanent fencing will be installed only around electrical substations and turbine tower access doors will be locked).
- Operators should consult with local planning authorities regarding increased traffic during the construction phase, including an assessment of the number of vehicles per day, their size, and type. Specific issues of concern (e.g., location of school bus routes and stops) should be identified and addressed in the traffic management plan.
- The project should be designed to establish a sufficient setback from turbines to the nearest residence to reduce electromagnetic field, shadow flickers, and exposure to low-frequency sound emissions. A minimum distance of 10 rotor diameters is recommended to reduce shadow flicker (Burton et al. 2001) and may be sufficient for electromagnetic field and low-frequency sound.
- The project should be planned to minimize electromagnetic interference (e.g., impacts to radar, microwave, television, and radio transmissions). Signal strength studies should be conducted when proposed locations have the potential to impact transmissions. Potential interference with public safety communication systems (e.g., radio traffic related to emergency activities) should be avoided.
- The project must be planned to comply with Federal Aviation Administration regulations, including lighting regulations, and to avoid potential safety issues associated with proximity to airports, military bases or training areas, or landing strips.
- Operators should develop a fire management strategy to implement measures to minimize the potential for a man-caused fire.

Construction

General

- All control and mitigation measures established for the project in the Plan of Development and project-specific management plans and programs shall be maintained and implemented throughout the construction phase, as appropriate.

APPENDIX B

Visual

- Operators should reduce visual impacts during construction by minimizing areas of surface disturbance, controlling erosion, using dust suppression techniques, and restoring exposed soils as closely as possible to their original contour and vegetation.

Roads

- Existing roads should be used to the extent possible, but only if in safe and environmentally sound locations. If new roads are necessary, they should be designed and constructed to the appropriate standard no higher than necessary to accommodate their intended functions (e.g., traffic volume and weight of vehicles). Excessive grades on roads, road embankments, ditches, and drainages should be avoided, especially in areas with erodible soils. Special construction techniques should be used, where applicable. Abandoned roads and roads that are no longer needed should be recontoured and revegetated.
- Access roads and on-site roads should be surfaced with aggregate materials, wherever appropriate.
- Access roads should be located to follow natural contours and minimize side hill cuts.
- Roads should be located away from drainage bottoms and avoid wetlands.
- Roads should be designed so that changes to surface water runoff are avoided and erosion is not initiated.
- Locate access roads to minimize stream crossings, to the extent practicable. All structures crossing intermittent and perennial streams should be located and constructed so that they do not decrease channel stability or increase water velocity. Crossings should be constructed at right angles to all riparian corridors and streams to minimize the area of disturbance. In areas where this is not possible, a stream should not be straightened, or otherwise channelized, in order to create a right-angle road crossing. Operators should obtain all applicable federal and state permits.
- Existing drainage systems should not be altered, especially in sensitive areas such as erodible soils or steep slopes. Culverts of adequate size to accommodate the runoff of a 25- and 100-year storm for temporary and permanent roads, respectively, should be used when constructing stream or wash crossings. Potential soil erosion should be controlled at culvert outlets with appropriate structures. Catch basins, roadway ditches, and culverts should be cleaned and maintained regularly.

Transportation

- Project personnel and contractors should be instructed and required to adhere to speed limits commensurate with road types, traffic volumes, vehicle types, and site-specific conditions, to ensure safe and efficient traffic flow and reduce wildlife collisions and disturbance and airborne dust.

- Traffic should be restricted to the roads developed for the project. Use of other unimproved roads should be restricted to emergency situations.
- Signs should be placed along construction roads to identify speed limits, travel restrictions, and other standard traffic control information. To minimize impacts on local commuters, consideration should be given to limiting construction vehicles traveling on public roadways during the morning and late afternoon commute time.

Air Emissions

- Dust abatement techniques (e.g., water spraying) should be used on unpaved, unvegetated surfaces to minimize airborne dust.
- Speed limits (e.g., 25 miles per hour [40 kilometers per hour]) should be posted and enforced to reduce airborne fugitive dust.
- Dusty or finely divided construction materials should not be mixed outside when winds exceed 15 miles per hour (24 kilometers per hour).
- Construction materials and stockpiled soils should be covered if they can be a source of fugitive dust.
- Land should be watered before and during surface clearing or excavation activities. Areas where blasting would occur should be covered with mats.

Excavation and Blasting Activities

- Operators should gain a clear understanding of the local hydrogeology. Areas of groundwater discharge and recharge and their potential relationships with surface water bodies should be identified.
- Operators should avoid creating hydrologic conduits between two aquifers during foundation excavation and other activities.
- Foundations and trenches should be backfilled with originally excavated material as much as possible. Excess excavation materials should be disposed of only in approved areas.
- Borrow material should be obtained only from authorized and permitted sites. Existing sites should be used in preference to new sites.
- Explosives should be used only within specified times and at specified distances from sensitive wildlife or streams and lakes as established by the BLM or other federal and state agencies.

APPENDIX B

Noise

- Noisy construction activities (including blasting) should be limited to the least noise-sensitive times of day (i.e., daytime only between 7 a.m. and 10 p.m.) and weekdays. As much as possible, noisy activities should be scheduled to occur at the same time since additional sources of noise generally do not add a significant amount of noise.
- All equipment should have sound-control devices no less effective than those provided on the original equipment. All construction equipment used should be adequately muffled and maintained.
- All stationary construction equipment (i.e., compressors and generators) should be located as far as practicable from nearby residences.
- If blasting or other noisy activities are required during the construction period, nearby residents should be notified in advance.

Hazardous Materials and Waste Management

- Secondary containment should be provided for all on-site hazardous materials and waste storage, including fuel. In particular, fuel storage (for construction vehicles and equipment) should be a temporary activity occurring only for as long as is needed to support construction and decommissioning activities.
- Wastes should be properly containerized and removed periodically for disposal at appropriate off-site permitted disposal facilities.
- In the event of an accidental release to the environment, the operator should document the event, including a root cause analysis, appropriate corrective actions taken, and a characterization of the resulting environmental or health and safety impacts. Documentation of the event must be provided to the BLM authorized officer and other federal and state agencies, as required.
- Any wastewater generated in association with temporary, portable sanitary facilities should be periodically removed by a licensed hauler and introduced into an existing municipal sewage treatment facility. Temporary, portable sanitary facilities provided for construction crews should be adequate to support expected on-site personnel and should be removed at completion of construction activities.

Public Health and Safety

- Temporary fencing should be installed around staging areas, storage yards, and excavations during construction to limit public access.

Operation

General

- All control and mitigation measures established for the project in the Plan of Development and in project-specific management plans shall be maintained and implemented throughout the operational phase, as appropriate. These control and mitigation measures shall be reviewed and revised, as needed to address changing conditions or requirements at the site, throughout the operational phase. This adaptive management approach will help ensure that impacts from operations are kept to a minimum.

Wildlife

- Employees, contractors, and site visitors should be instructed to avoid harassment and disturbance of wildlife, especially during reproductive (e.g., courtship, nesting) seasons. In addition, any pets should be controlled to avoid harassment and disturbance of wildlife.
- Observations of potential wildlife problems, including wildlife mortality, should be reported to the BLM authorized officer immediately.

Transportation

- On-going transportation planning should be conducted to evaluate road use, minimize traffic volume, and ensure that roads are maintained adequately to minimize associated impacts.

Monitoring Program

- Protocols defined in the site monitoring program for incorporating monitoring program observations and additional mitigation measures into standard operating procedures and Best Management Practices to minimize future environmental impacts shall be implemented.
- Results of monitoring program efforts should be provided to the BLM authorized officer.

Public Health and Safety

- Permanent fencing should be installed and adequately maintained around electrical substations and turbine tower access doors should be locked to limit public access.
- In the event an installed wind energy development project results in electromagnetic interference, the operator should work with the owner of the impacted communications system to resolve the problem. Additional warning information also may need to be conveyed to aircraft with onboard radar systems so that echoes from wind turbines can be quickly recognized.

APPENDIX B

Decommissioning

General

- All management plans, Best Management Practices, and stipulations developed for the construction phase should be applied to similar activities during the decommissioning phase.
- All turbines and ancillary structures should be removed from the site.
- Topsoil from all decommissioning activities should be salvaged and reapplied during final reclamation.
- All areas of disturbed soil should be reclaimed using weed free native shrubs, grasses, and forbs.
- The vegetation cover, composition, and diversity should be restored to values commensurate with the ecological setting.

References

State of Nevada, Department of Wildlife, Conservation Assessment of Greater Sage-grouse and Sagebrush Habitats, 2004

State of Nevada, Department of Wildlife, Greater Sage-grouse Conservation Plan for Nevada and Eastern California, 2004

#4

HB 1317 CC

4-9

Johnson, Marilyn A.

From: Elizabeth Salerno [esalerno@awea.org]
Sent: Wednesday, April 04, 2007 10:50 AM
To: Johnson, Marilyn A.
Subject: Decommissioning Wind Turbines

Attachments: Decommission_2007-03-13_ATTACHMENT_B.pdf; 01_Barriers-Incentives-Wind_Repowering_Europe-Wiser_2007-03-13.ppt



Decommission_01_Barriers-I
2007-03-13_ATTACHMENT_B.pdf

Hi -

I am sending along a few initial pieces on decommissioning wind turbines. We generally think about decommissioning in conjunction with repowering. Since turbines are installed in areas with the best wind resource it makes sense to install new turbines on the same site once the initial set of turbines are at the end of their 20-25 year lifetime. Attached is a presentation made to the California Energy Commission on regulatory barriers to repowering. Also attached is a 2 page overview, with experience from Denmark and Germany, which has had wind turbines installed longer than the US.

I have a request out to staff to pass along more comprehensive documents on this issue, and will send along additional material.

Best,

Liz

Elizabeth Salerno

Policy Analyst

American Wind Energy Association

Washington, DC

P: (202) 383-2517

C: (617) 291-6458

Attachment B

Incentives to Repower Aging Wind Turbines in Europe

The repowering of aging wind plants in California may provide the dual benefits of increasing the state's renewable energy supply and reducing avian mortality. Despite interest by the California Energy Commission and California Public Utilities Commission in encouraging this repowering, and some efforts by the state's investor owned utilities, repowering activity has been slow. This is partly a reflection of the "California fix" embedded within the Federal production tax credit, which currently impedes repowering to some degree. It is also a reflection of the fact that many existing, aging wind facilities are more profitable operating under their existing QF contracts than they would be after project replacement.

To combat these barriers, it may be necessary and useful to consider a more proactive state policy to encourage repowering, one which would offer an explicit incentive for the repowering of aging wind projects. There are many ways that such a policy might be designed. This write-up does not address the full range of policy options, but instead simply summarizes related efforts in Denmark and Germany.

Denmark and Germany have enough aging wind projects to have a similar motivation as California's state agencies in encouraging project refurbishment and repowering. However, unlike California, both of these countries currently offer proactive policies intended to directly encourage such repowering.

Denmark

Denmark was the first country to actively support wind repowering, in part because wind turbine installation began in the early 1980s, so a large number of aging, small (< 75 kW) wind turbines exist throughout the country. Denmark recognized that these smaller, aging turbines were an obstacle to new project development, and that removing and repowering those turbines would require an overt and explicit incentive. Denmark's repowering program has led to the repowering of two-thirds of the oldest turbines in the country.

Denmark's first incentive program for repowering wind operated from April 2001 – December 2003. For turbines smaller than 100 kW, "repowering certificates" allowed owners to install three times the capacity removed and receive an additional feed-in tariff price of 2.3 cents/kWh for the first 12,000 full load hours (~5 years) of the enlarged wind project. For turbines in the 100-150 kW size range, owners could install twice the capacity removed and receive the same treatment.

As a result of this program, 1,480 turbines totaling 121.7 MW were replaced with 272 new turbines totaling 331.5 MW. Some owners of older wind projects also decided to decommission their projects and sell their repowering certificates to other wind developers.

Denmark has continued to encourage wind repowering through a policy enacted via the *Energy Policy Agreement* of March 2004. This new program intends to repower another 175 MW of aging wind turbines. Under the program, an extra surcharge is

paid for new, onshore wind-turbines on the condition that the owner has a repowering certificate for a wind turbine 450 kW or less decommissioned between December 2004 and December 2009. The surcharge is paid for factory-new wind turbines connected to the grid between January 2005 and December 2009. The surcharge amounts to 1.6 cents/kWh, and is paid for electricity production corresponding to 12,000 full-load hours for up to twice the decommissioned wind-turbine's installed power. The surcharge is regulated in relation to the market price of electricity, and the total of the surcharge and market price must not exceed a specified level. Because of the current low price of wholesale electricity, wind industry stakeholders in Denmark are concerned about the adequacy of this incentive and are calling for a larger incentive.

Germany

Germany's wind power boom started later than Denmark's. Repowering is expected to constitute a major part of the wind market in the years ahead, especially as available new sites for wind development continue to diminish. Stumbling blocks include local government restrictions on hub height or total turbine height and setback requirements between installations and residential areas. As of mid-2005, just 59 MW of wind turbines had been decommissioned, replaced with 169 MW of wind capacity. Despite the barriers, the wind repowering opportunity in Germany is enormous.

Before 2004, Germany's feed-in tariff provided some encouragement for wind repowering by offering new wind projects a higher payment than existing projects that had been operating for some time. Since 2004, the feed-in tariff has offered a longer and higher payment level to wind turbines that replace/modernize existing projects built before December 1995 and are at least three times the capacity of the repowered turbine.

Despite this incentive, repowering has just begun, and given the regulatory siting and permitting barriers to repowering identified above, the wind industry argues that the feed-in tariff repowering incentive is insufficient.

Barriers and Incentives for Wind Repowering in Europe and Elsewhere

Ryan H. Wiser

RHWiser@lbl.gov (510.486.5474)

California Energy Commission

Committee Workshop on Incentives for Wind Repowering and Best
Practices for Coordinating RPS with Carbon Market Design

March 13, 2007

Sacramento, California

● ● Presentation Overview ●

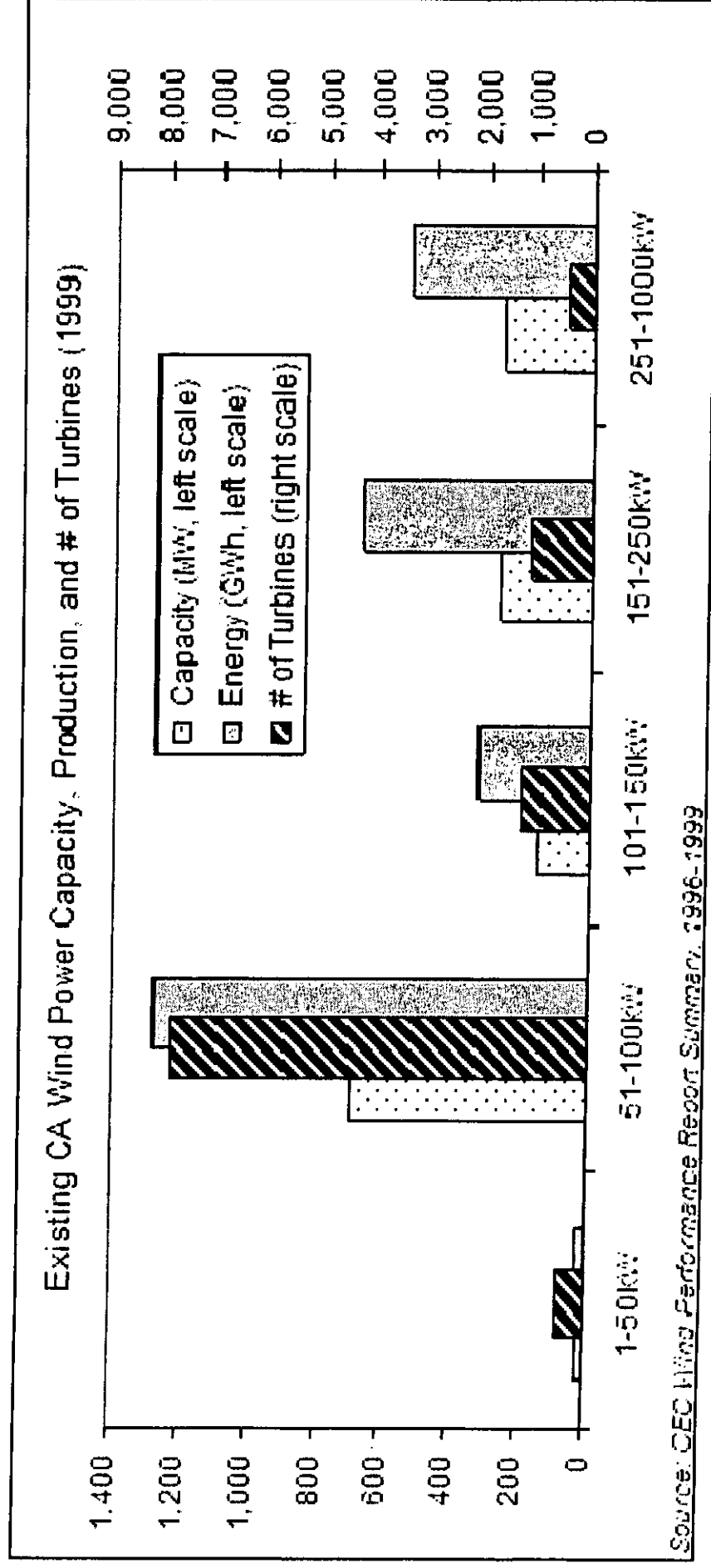
1. Possible Benefits of Repowering
 2. Opportunity for Repowering in California
 3. Possible Barriers to Repowering
 4. Policy Options Used in Europe
 5. Implications for California
-

Possible Benefits of Repowering

- Avian mortality reduction
- Reduced aesthetic concerns
- Increased renewables production in nearer-term
- Use of existing infrastructure/lower costs*
- Grid benefits of newer wind technology
- The PTC is available, for now...

Berkeley Lab analysis suggests that past repowered projects are roughly ~\$150-200/kW cheaper than new green-field projects

The Opportunity: A Large Number of Old, Inefficient Turbines in Use in California



Roughly 1,300 MW of wind power installed in 1980s

But... Relatively Little Repowering to Date

- Roughly 250 MW of repowering before 1999
 - Since RPS was enacted, IOUs have signed 10 wind repowering contracts, for 129 – 166 MW
 - PG&E: Diablo Winds and Buena Vista
 - Altamont area
 - 61 MW total, both complete
 - SCE: CTV, Boxcar, Karen, Coram, Caithness I/II, Ridgetop I/II
 - Tehachapi, San Geronio, Mohave
 - 68-105 MW total, repowered projects not completed (I think...)
-

Possible Barriers to Repowering

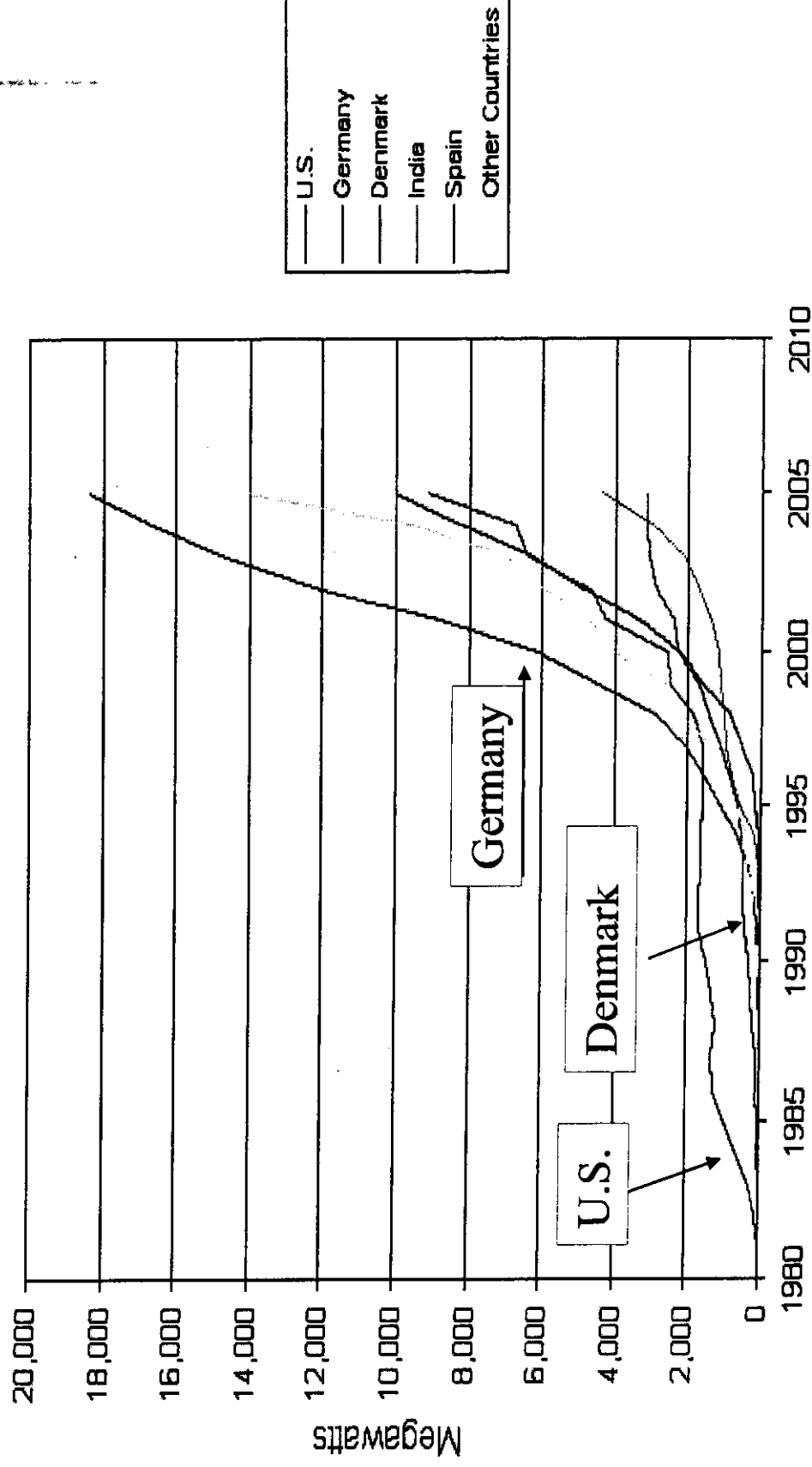
- Federal production tax credit “California fix”
 - Environmental siting/permitting challenges may delay construction and affect operations
 - Lack of transmission availability for increased capacity
 - Effect of lengthy development/RFO time in California given uncertain PTC availability, turbine costs, etc.
 - Other utility contracting barriers
 - Lack of economic interest in repowering
 - Existing projects already profitable under standard offer contracts, and many presumably more profitable than if repowered
 - Other development opportunities in a turbine-shortage environment
 - Is the risk worth it, under the present environment?
-

Situation Analysis

- Most seemingly agree that status quo unlikely to lead to rapid wind repowering
 - Assuming that policymakers view the benefits of repowering to be significant, more aggressive policy options may be needed
 - Experience with repowering outside of California may be of some relevance
-

Only Experience in Denmark and Germany Likely to be Relevant

Wind Electricity-Generating Capacity by Country, 1980-2005



Source: Worldwatch, GWEC, AWEA

Experience from Europe: Denmark

- Wind installation began in 1980s, so relatively large number of <75 kW turbines
 - Recognized that smaller, aging turbines were an obstacle to new project development
 - Removing and repowering those turbines would require an overt and explicit incentive
 - Result: Denmark's repowering program led to the repowering of ~2/3rd of the oldest turbines
-

Denmark's Repowering Program

- **First Program: April 2001 – December 2003**
 - For turbines <100 kW, “repowering certificates” allowed owners to install three times the capacity removed and receive an additional 2.3 cents/kWh for the first 12,000 full load hours (~5 years)
 - For 100-150 kW turbines, owners could install twice the capacity removed and receive the same treatment
 - Owners allowed to decommission projects and sell their repowering certificates to other wind developers
 - 1,480 turbines totaling 122 MW were replaced with 272 new turbines totaling 332 MW
 - **Second Program: March 2004 – present**
 - Intends to repower another 175 MW of aging wind turbines
 - For turbines <450 kW, “repowering certificates” allow owners to decommission projects from 2004 –2009 and install factory new turbines from 2005 –2009
 - Surcharge amounts to 1.6 cents/kWh for the first 12,000 full-load hours for up to twice the decommissioned wind-turbine's installed power; total of the surcharge and wholesale market price must not exceed a specified level
 - Wind industry stakeholders in Denmark concerned about the adequacy of this incentive and calling for a larger incentive
-

Experience from Europe: Germany

- Germany's wind additions came later, but repowering expected to accelerate as available new wind sites diminish
 - Stumbling blocks include local government restrictions on hub/turbine height and setback requirements to residential areas
 - As of mid-2005, just 59 MW of wind turbines had been decommissioned, replaced with 169 MW of wind capacity
 - To encourage repowering...
 - Before 2004, feed-in tariff provided some encouragement by offering new projects a higher payment than existing projects
 - After 2004, feed-in tariff has offered a longer/higher payment to turbines that replace/modernize existing projects built before December 1995 and are at least three times the capacity
 - Given siting and permitting barriers, the wind industry argues that the present incentive is insufficient
-

Possible Implications for California

- Specific policies used in Germany/Denmark may not be relevant
 - Explicit incentives may be needed to encourage rapid repowering
 - Possible policy options for consideration in California (*in no particular order, and certainly not exhaustive*)
 - Standardized contracts and/or tariff levels/models for repowered projects
 - Explicit obligatory or non-obligatory target for repowering within RPS
 - Extra-credit for RPS achievement with repowered projects
 - CEC-administered cash incentive payment
 - State production tax credit (with tradability of credit)
 - Eased siting/permitting process to reduce development risk
 - Reduced standard-offer payments to wind QFs
-

Possible Implications for California

- Whichever policy is used, need to establish incentive at level that is expected to quicken repowering decisions
 - Repowering must be made more profitable than status-quo of continued operations
 - Suggests analysis of current profitability, and needed pricing terms to encourage repowering
 - Some/many of the policy options would require, or would at least benefit, from new legislation, and are out of the hands of the Energy Commission and CPUC
-



**National
Wind
Watch**

Presenting the facts
about industrial wind power

HOME

ABOUT

CONTACT

News
Watch

Key
Documents

Resource
Library

Research
Links

Press
Releases

DONATE
Help
keep this
education
resource
going!

Fast
Facts

Publications
&
Products

Photos &
Graphics

Videos

Affiliates



posted: March 4, 2007 • Vermont, Information

Source: Eric Rosenbloom

Comments on Deerfield Wind Application, Readsboro, Vt.

Docket 7250

Petition of Deerfield Wind, LLC for a Certificate of Public Good

January 8, 2007

II. Description of the Project

B. Wind Resource and Energy Production

11. More than two decades of wind data gathered in the site area provide confidence in the longterm average wind resource and the energy production estimates derived from it. The capacity of the Project will be up to 45 megawatts, depending on the size and number of turbines (1.5 to 3.0 MW each).

12. Based upon the estimation of wind speed, and accounting for blade icing/fouling, cold temperature shutdown, turbine availability, array losses, high wind factors, electrical losses, and a margin for uncertainty, the expected long-term annual net energy production from the Deerfield facility is approximately 120,000 megawatt-hours (+/- 10%, depending on the number and type of turbines). The expected capacity factor is 0.35 (+/- 10%, again depending upon the turbines selected).

120,000 MWh / 8,760 h/yr = 13.7 MW, which is 0.30 of 45 MW, NOT 0.35. The existing Searsburg turbines promised a similar output but have proved to average only around 21%.

C. Wind Turbines and Related Equipment

13. Each wind turbine is comprised of three components - the tower, the nacelle, and the rotor blades. The turbines use a tubular steel tower, approximately 260 feet in height and 16 feet in diameter at its base. The tower is topped by a nacelle, which

Alerts
Feeds

**RSS2
Atom**

[Add this
content to
your site]

**Show All
by
Source**

All categories

Search

(Alerts &
Events
only)

Categories

Announcements
Australia
California
Conferences
Energy
Essays
Fundraisers
Impacts
Information
Law
Letters
Michigan
Minnesota
New
York
News
Ohio
Ontario
Pennsylvania
Press
releases
Texas
U.S.

houses the main mechanical components of the turbine. The rotor, mounted on the nacelle, consists of three fiberglass blades up to approximately 148 feet to the center of the hub. The total height of the turbines (highest arc of the rotor blades), depending upon the turbine model ultimately chosen, will be up to 125 meters (410 feet) above the turbine base.

This appears to be the Vestas V90, which is available with a 1.8-MW or 3.0-MW generator.

15. The wind turbines begin generating energy at wind speeds as low as 9 mph and produce full power at wind speeds above 30 mph. The maximum rotor speed is approximately 20 revolutions per minute.

The maximum rotational rate of the 3-MW Vestas V90 is 19 rpm, and its rated wind speed is 34 mph (15 m/s), NOT 30.

Note that the swept area of the blades is 1.57 acres, and the maximum speed at the tips is 200 mph.

16. The turbine structures will be anchored to a concrete foundation. An area of the concrete foundation approximately 18 feet by 18 feet will be left exposed. The wind turbines will be sited a minimum of about 2.5 rotor diameters apart.

E. Construction

22. Land clearing and harvesting of trees will be done for the turbine installation and for the road construction described above. No more than 80 acres of National Forest land will be occupied for the installation of the wind turbines. Clearing will be done in linear strips, with small areas approximately one acre in size cleared out along the ridge-top portions of the roadways around the base of each individual turbine.

For 15 turbines, that's 5.33 acres around each one. The loss of interior forest habitat extends a further 250-300 feet, for a total of more than 20 acres per turbine.

F. Operation and Maintenance

27. The Project will operate for approximately 30 years. Operation and maintenance will be in accordance with a plan that will include a centralized Supervisory Control and Data Acquisition (SCADA) system to monitor the condition of the wind plant equipment, alert service technicians to any fault or alarm conditions, record and sort data, and allow remote control of the turbines.

28. Maintenance of the wind turbines, transmission facilities, and site improvements (roads, gates, fences, etc.) will generally be scheduled in two inspections at approximately six-month intervals and averaging 40 to 50 person hours per year for each turbine.

Vermont
Washington

Archives

March
2007
February
2007
January
2007
December
2006
November
2006
October
2006
September
2006
August
2006

Powered
by
WordPress
Login

29. The Project will require 3 to 5 permanent staff for on-site operations.

30. Access to the Site will be controlled. Public access will be limited in accordance with the conditions established in the Special Use Authorization issued by the Forest Service and state permitting procedures. Access will be controlled with gates.

G. Decommissioning

32. At the end of the Project's useful life or the loss of permission from the Forest Service to maintain the facility, decommissioning will occur. Decommissioning will be paid for out of a fund established by Deerfield Wind. 33. Decommissioning will include removing all buildings, structures, and other above ground equipment on federal and private land, with the exception of non-wind turbine components that landowners request remain in place (access roads, buildings, etc.). Turbine foundations, poles, and insulators will be removed to a minimum depth of 3 feet.

That is, the steel-reinforced concrete bases will remain.

III. SECTION 248 CRITERIA

B. 30 V.S.A. § 248(b)(2) – Need for the Project

43. The Project "is required to meet the present and future demand for service which could not otherwise be provided in a more cost effective manner through energy conservation programs and measures and energy efficiency and load management measures..." The Project meets a present and future demand need for cost effective electricity in Vermont and in the New England Power Pool.

As a part of the New England power grid, this project — at an average output of 30%, i.e., a total annual output of 120,000 MWh — would represent less than 0.1% of the system's total production (135,000,000 MWh in 2006). At a more likely average output of 21%, the project would represent only 0.06% of ISO New England's production. Obviously, conservation could easily and economically reduce the need for that small amount of additional energy.

48. It is in the public interest to increase fuel diversity. Over the past decade, the major trend in the mix of fuels used for electricity generation in New England has been the shift toward natural gas from nuclear and oil.

49. Demand for natural gas has grown from all sectors, and this demand growth has led to rising gas prices and to more volatile prices. Rising and more volatile gas prices will make wind energy more valuable, because higher average gas prices raise average wholesale electricity costs, increasing the value of energy produced by wind projects. In addition, because the costs of a wind project are not affected by

fluctuating fuel prices, they are much more stable than the costs of generation with gas or oil.

Efficiently balancing of the intermittent and highly variable energy from wind requires more natural gas plants, not fewer, because they are the ones able to respond quickly enough.

C. 30 V.S.A. § 248(b)(3) – System Stability and Reliability

51. The Project “will not adversely affect system stability and reliability,” either locally or regionally.

That’s because on the New England grid, its contribution would be so very small (less than 0.1%).

D. 30 V.S.A. § 248(b)(4) – Economic Benefit to the State

58. The Project is a renewable energy project that will not produce air emissions from the generation of electricity, including NO_x, SO₂, and CO₂. Energy production at this Project will likely displace higher cost power that is supplied by a fossil-fueled generation plant that does emit pollutants. An economic analysis calculated a projected annual benefit of between \$0.6 million and \$1.1 million in avoided external costs due to displaced conventional generation, depending both on project size and on the valuation model.

Missing from this analysis is the the actual behavior of other plants in balancing the fluctuating infeed from wind. Many plants will continue to burn fuel to stay warm on standby; others may require more fuel for more frequent restarts. The fuel thus burned may be burned less efficiently, i.e., with more emissions. Displacing electricity is not the same as reducing fuel use or emissions.

59. The cost of project construction is expected to be about \$2 million dollars per installed megawatt.

And what would the cost be of mitigating the need for such a project? Much much less. 25,000 compact fluorescents could save the need for each installed megawatt of wind power — without sacrificing any forest habitat.

E. 30 V.S.A. § 248(b)(5) and (8) – Environmental and Other Considerations

2. No Undue Air Pollution

65. The Project is expected to result in sound levels at the nearest residences of 45 dBA or less. Noise levels from the turbines will be at or below average background noise levels that occur at permanent or seasonal residences. No local applicable, state, or federal noise standards or guidelines would be exceeded.

14. Aesthetics

103. The Project is expected to result in sound levels at the nearest residences of 41 dBA or less. Noise levels from the turbines will be at or below existing average background noise levels that occur at permanent or seasonal residences. No local applicable, state, or federal noise standards or guidelines would be exceeded.

They are obviously just pulling numbers out of thin air. Both 45 and 41 dBA, as well as the contradictory claim that such a noise level would be at or below the background levels. At night, the sound levels at nearby residences are likely to be in the low 20s, and a noise in the low 40s would be perceived as four times as loud. Note that the "A" weighting ignores low-frequency and infrasonic noise.

[Alerts Home »](#)



[HOME](#)

[ABOUT](#)

[CONTACT](#)

© National Wind Watch, Inc.

Use of copyrighted material protected by Fair Use.

From: Elizabeth Salerno [esalerno@awea.org]
Sent: Wednesday, April 04, 2007 2:29 PM
To: Johnson, Marilyn A.
Subject: RE: Decommissioning Wind Turbines

Hi Marilyn -

Here is some insight on decommissioning from one of our members, below. I want to heavily caveat this and note that there isn't really one cost of decommissioning, and the cost can be more than what is cited below. It will very much depend on the wind project site, how many turbines are on the site, among other issues. For example, the cost of a crane to bring down the turbines is quite expensive, and renting a crane to take down 100 turbines costs much less per turbine compared to a site with only 10 or 20 turbines.

Depending on how quickly you need this information, we are developing a resource (Siting handbook) that will have more information on all aspects of siting wind projects, including decommissioning. However, it is currently still undergoing review. If ND plans to move forward with a process for decommissioning, I would highly suggest having a discussion with developers who will have the experience and knowledge about costs and what approaches have worked best.

Liz

Some counties and BLM require \$2,000 to \$3,000 per turbine be paid into a decommissioning fund, or that a bond be posted in this amount. If a turbine and balance of plant equipment are being decommissioned with a lot of useful life left, they have a positive value that exceeds the cost of removal and restoration of the site. If the turbine is decommissioned because it is at the end of its serviceable life, its principal value and that of the above-ground equipment are as scrap material. In this case, the typical cost of removal of a 600 kW to 1,000 kW turbine is about \$1,500 to \$3,500, but the salvage value covers

a big portion of this cost. A typical cost for a 1,000 to 2.0 MW turbine is more like \$2500 to \$5,000, but the salvage value covers a large part of this cost as well, so \$2,000 to \$3000 would be adequate for most instances.

Elizabeth Salerno
Policy Analyst
American Wind Energy Association
Washington, DC
P: (202) 383-2517
C: (617) 291-6458

-----Original Message-----
From: Johnson, Marilyn A. [mailto:marjohns@nd.gov]
Sent: Wednesday, April 04, 2007 11:54 AM
To: Elizabeth Salerno
Subject: RE: Decommissioning Wind Turbines

Excellent. Thanks so much,
mj

-----Original Message-----
From: Elizabeth Salerno [mailto:esalerno@awea.org]
Sent: Wednesday, April 04, 2007 10:50 AM
To: Johnson, Marilyn A.
Subject: Decommissioning Wind Turbines