

WESTERN AREA POWER ADMINISTRATION  
WIND/HYDRO INTEGRATION FEASIBILITY STUDY

TRANSCRIPT OF PUBLIC MEETING

Taken At  
Comfort Inn  
1030 East Interstate Avenue  
Bismarck, North Dakota  
September 27, 2007

(APPEARANCES AS NOTED HEREIN)

**EMINETH & ASSOCIATES**  
**Court Reporters**  
BISMARCK, NORTH DAKOTA  
(701) 255-3513



**ORIGINAL**



A P P E A R A N C E S

1  
2  
3 MR. MICHAEL RADECKI  
4 Energy Services Specialist  
5 Western Area Power Administration  
6 Upper Great Plains Region  
7 2900 4th Avenue North  
8 Billings, Montana 59107-5800

FOR WESTERN AREA POWER  
ADMINISTRATION.

-----  
9 ALSO PRESENT:

10 MR. SCOTT OLSON, Ulteig Engineers  
11 MR. CASEY BROWN, Spirit Lake Nation  
12 MR. BOB HILLMAN, Nabholz Construction  
13 MR. RON REBENITSCH, Basin Electric  
14 MR. BOB RIEHL, Western Area Power  
15 MR. CHRIS VANDE VENTER, Basin Electric  
16 MR. FRED WEEKES, City of Aurora  
17 MS. KIM MASSEY, Stanley Consultants  
18 MR. ROBERT RUSCH, Stanley Consultants  
19 MR. MILES McALLISTER, Standing Rock Farms  
20 MR. JIM BACH, Western Area Power  
21 MR. TERRY FREDERICKS, Three Affiliated Tribes  
22  
23  
24  
25

1           (The following proceedings were had and  
2 made of record herein, commencing at 9:00 a.m., on  
3 Thursday, September 27, 2007:)

4           MR. RADECKI: Why don't we go ahead and  
5 get started. My name is Mike Radecki, and I work  
6 for the Western Area Power Administration's Upper  
7 Great Plains Region. I'm the project manager for  
8 the Wind/Hydro Integration Feasibility Study.

9           I'm going to pass out a copy of today's  
10 slides for you. We do have a recorder at today's  
11 meeting, the gentleman sitting here in the front of  
12 the room. If you want to look through the slides --  
13 or go to the next slide quickly, today's agenda, I'm  
14 going to give a brief overview of the Energy Policy  
15 Act of 2005, Section 2606, which actually required  
16 us to conduct this Wind/Hydro Integration  
17 Feasibility Study.

18           I'll give a little update on our progress  
19 to date, and then I will go into an overview of the  
20 work plan that is being developed to complete the  
21 study. After the discussion on the work plan, that  
22 will be the end of the presentation, and we will  
23 then entertain any questions or comments on the work  
24 plan.

25           The Energy Policy Act of 2005, Section

1 2606, really laid out the foundation of this  
2 Wind/Hydro Integration Feasibility Study. Congress  
3 was pretty clear in what they said that the study  
4 shall do: Essentially look at the economic and  
5 engineering feasibility of integrating wind and  
6 hydro, specifically on the Missouri River with the  
7 energy generated by the Army Corps of Engineers,  
8 including an assessment of the costs and benefits of  
9 blending wind energy and hydropower as well as the  
10 current sources used for firming power for Western.  
11 We are to take a strong look at the historical uses,  
12 the patterns of availability, and reasons for  
13 historical patterns for firming power for Western.

14 And essentially what that all really means  
15 is when we don't generate electricity with the  
16 river, with hydro power, we have to buy electricity  
17 from other sources. What they want us to do is look  
18 at when do we have to buy it, why did we have to buy  
19 it, and what does that mean moving forward for wind  
20 integration.

21 We're also to assess the wind energy  
22 resource potential on Tribal lands and projected  
23 cost savings through a blend of wind and hydropower  
24 over a 30-year period. And we are to determine the  
25 seasonal capacity needs and associated transmission

1 upgrades for the integration of Tribal wind  
2 generation, and we're to look at the costs  
3 associated with these activities. And, again, that  
4 all blends back into this 30-year look.

5 And last but not least, we're to  
6 incorporate the results of the Dakotas Wind  
7 Transmission study which was completed, oh,  
8 approximately two, two and a half years ago.

9 Congress also went as far as to tell us  
10 what our report should do. We are to provide an  
11 analysis and comparison of the potential energy cost  
12 or benefits to the customers of Western through the  
13 combined use of wind and hydropower, including an  
14 economic and engineering evaluation of whether a  
15 combined wind and hydropower system can reduce  
16 reservoir fluctuation, enhance efficient and  
17 reliable energy production, and provide Missouri  
18 River management flexibility -- quite a large  
19 statement there -- including a feasibility  
20 determination and recommendation for a demonstration  
21 project to be carried out by Western, in partnership  
22 with an Indian Tribal government or Tribal energy  
23 resource development organization, and Western  
24 customers to demonstrate the feasibility and  
25 potential of using wind energy produced on Indian

1 land to supply firming power to Western, including  
2 the economic and environmental costs of, or benefits  
3 to be realized through, a Federal-Tribal-customer  
4 partnership, and the manner in which a Federal-  
5 Tribal-customer partnership could contribute to the  
6 energy secured in the United States.

7 So that was the Section 26 requirements  
8 out of the Energy Policy Act. Those requirements  
9 are pretty much verbatim, but they were reduced  
10 slightly just for today's presentation.

11 The 2606, in order to carry it forward, we  
12 boiled it down to three primary components. There's  
13 a physical integration component, and that is how  
14 much and where, how much do we need, where do we  
15 need it, as well as how much wind energy could be  
16 generated on the various Tribal reservations  
17 throughout our region, where are they located, and  
18 how does that all marry up. Just the physical  
19 aspects. Operational integration. Quite simply,  
20 what is it going to take to utilize the energy, what  
21 challenges will be presented through this  
22 integration. And ultimately the economics, what are  
23 the costs and benefits resulting from wind/hydro  
24 integration.

25 The Wind/Hydro Feasibility Study progress

1 to date. A study team has been formed, including  
2 representatives from the Army Corps of Engineers,  
3 the Bureau of Reclamation, Bureau of Indian Affairs,  
4 we have three Native American Tribes who are study  
5 team members, we have one Inter-Tribal organization  
6 that is a study team member, we have three Western  
7 customers who are members of the study team, as well  
8 as the National Renewable Energy Laboratory. And  
9 there are some other folks who have participated on  
10 an intermittent basis.

11 Study team working sessions. We've had  
12 two conference calls, and we've had a face-to-face  
13 session, essentially meeting to bring everyone to an  
14 understanding of what the project entails, as well  
15 as we formed the basis of the study work plan.

16 MR. FREDERICKS: Can we ask questions or  
17 not?

18 MR. RADECKI: I'm sorry. Thank you for  
19 bringing it up, Terry. What I would hope we could  
20 do is go through the presentation and then entertain  
21 questions after the presentation.

22 The Wind/Hydro Integration Feasibility  
23 Study work plan essentially is designed to meet the  
24 objectives of the Energy Policy Act, 2606. There  
25 are six work elements. Work Element 1 is work plan

1 development. Work Element 2 is the analysis of  
2 historical purchases. Work Element 3 is wind  
3 project identification. Work Element 4,  
4 transmission system evaluation. Work Element 5,  
5 assessment of impacts, a/k/a, economics. And then  
6 Work Element 6 is our Wind/Hydro Feasibility Study  
7 draft and final report preparation.

8 Talking about Work Element 1, you know,  
9 again, the fundamental work elements were  
10 established by the legislation. However, the study  
11 team helped focus this discussion. The legislation  
12 is pretty broad, but we had discussions with the  
13 study team. What is it really going to take to meet  
14 the objective that the legislation wants us to meet?  
15 Public review and comment. As you probably are all  
16 aware, the work plan is available for public review  
17 and comment. The comment period began September  
18 19th and will close on October 18th, I believe it  
19 is.

20 Work Element 2. One of the first real  
21 tasks of the project is the analysis of historical  
22 purchases, and they're going to be used to develop  
23 appropriate penetration levels for integration of  
24 Native American wind energy. Key factors may  
25 include the availability of hydro resources, actual

1 system loads, as well as sales of excess energy.  
2 And there are many more factors that will play into  
3 this. Those are just a few.

4 Wind project identification. Several of  
5 the Native American tribes within the Upper Great  
6 Plains Region are in the process of developing wind  
7 energy projects, and they range from, well, they  
8 have an idea or a concept they'd like to move  
9 forward, to some are actually entering into  
10 agreements and actually building projects. Our  
11 intent is to utilize as much information as possible  
12 on actual projects, to bring a level of credibility  
13 and reality to this study. Using actual information  
14 from Tribal projects brings reality into this  
15 feasibility study. Our ultimate goal is to develop  
16 realistic scenarios involving wind integration,  
17 especially where Tribal organizations have begun  
18 project development, they have sites chosen, they  
19 have the size of a project chosen, they kind of have  
20 an idea of what it is they want to do. That helps  
21 bring realism to the scenarios that we'll use in our  
22 feasibility study.

23 Work Element 4, the transmission system  
24 evaluation. The Dakotas Wind Study provided a  
25 significant amount of insight regarding the use of

1 our existing transmission system. Essentially the  
2 Dakotas Wind Study said that up to 500 megawatts of  
3 wind on a non-firm basis could be transmitted on the  
4 system approximately 95 percent of the time. Now,  
5 there are several more variables that go into that,  
6 but essentially that's what the study resulted in,  
7 that the system as it existed at the time the  
8 Dakotas Wind Study was written, 500 megawatts, 95  
9 percent of the time, on a non-firm basis. So that  
10 really helps us out in understanding what the  
11 transmission system capabilities are. The  
12 transmission system evaluation for this project will  
13 assess the impacts from integration of wind and  
14 necessary improvements and enhancements for wind  
15 integration.

16 Assessment of impacts will focus on the  
17 total net production costs over the study period,  
18 which is going to be 30 years. There will be  
19 multiple scenarios consisting of differing levels of  
20 available hydro resource, wind penetration  
21 percentages. The goal of the scenarios is to  
22 develop a robust measurement of the potential  
23 economics relating to varying wind penetration  
24 levels and hydro conditions, you know, essentially  
25 low water years, high water years, good wind

1 periods, bad wind periods, and everything in  
2 between.

3 Work Element 6, quite simply the report  
4 preparation. Again, it's designed to meet the  
5 objectives of Section 2606, that of the Energy  
6 Policy Act, the cost and benefit of wind/hydro  
7 integration, engineering and operational  
8 characteristics, economic and environmental  
9 cost/benefits, recommendations for a demonstration  
10 project, how it contributes to the energy security  
11 of the United States. And I'm certain we will have  
12 other points of discussion based on information we  
13 learn through the study.

14 With regards to the public comment period  
15 on this draft work plan itself, the official public  
16 comment period is September 19th through October  
17 19th. And I do believe the October 19th date is  
18 incorrect. I believe it is the 18th. Written  
19 comments may be sent to Mr. Robert J. Harris. Bob  
20 Harris is our Regional Manager at the address listed  
21 here. All that information you have in the handouts  
22 in front of you, so I'm not going to read it all.  
23 You can submit comments by e-mail to the address  
24 that's listed here. My contact information, again,  
25 that's also in the handouts that you have.

1                   And that is actually it for the  
2 presentation on the work plan itself. What I'd like  
3 to do now is entertain any questions or comments  
4 that you might have. Does anybody need me to keep  
5 the slides up to refer back to something?

6                   When you make a question or comment,  
7 please state your name so that we know who's making  
8 the comment.

9                   MR. FREDERICKS: My name is Terry  
10 Fredericks. I'm from the Three Affiliated Tribes.  
11 I also represent an Inter-Tribal Council on utility  
12 policy for several tribes in the Upper Great Plains  
13 Region.

14                   One of the questions I had was the three  
15 tribes. Who are those three tribes that are  
16 involved with this? And is that Inter-tribal  
17 Council on utility policy you're talking about?

18                   MR. RADECKI: The three tribes  
19 participating as study team members are the Black  
20 Feet Tribe, Fort Peck, and the Lower Sioux.

21                   MR. FREDERICKS: Lower Brule?

22                   MR. RADECKI: Lower Brule. I'm sorry. As  
23 well as the Inter-Tribal Council on utility policy.

24                   MR. FREDERICKS: I'm not sure if this is  
25 in line or whatever. We're in developments for this

1 quite a ways to do some large wind parks. And  
2 you're talking, I guess, the 30-year plan. Are you  
3 doing this power purchase agreement through WAPA?  
4 Is that included in this along with the transmission  
5 access? First of all, I guess, say on Fort  
6 Berthold, we have a study going on, and this one  
7 area where it's a very good area is about 27 miles  
8 from the nearest WAPA line. Is there going to be  
9 any help from WAPA or any way to interconnect that?

10 MR. RADECKI: The objective of the study  
11 is to look at the potential wind energy sites. And  
12 our assumption is it would be the costs -- all costs  
13 associated with the site development, connection to  
14 transmission, and what it means economically  
15 ultimately to the cost of power.

16 Who would bear those costs I guess we  
17 can't say at this time. You know, what we do is we  
18 will identify the costs, you know, go through the  
19 evaluation, and what we will provide Congress is a  
20 report of here are all the costs. This is the  
21 economic that flows out of those costs. And we'll  
22 have a recommendation or recommendations for  
23 demonstration projects that will basically be in  
24 Congress's hands to take the next step on.

25 So to indirectly answer your question, the

1 costs will be in the evaluation, but I can't answer  
2 your question as to whether Western or someone else  
3 will help pay for that.

4 MR. FREDERICKS: Would you be assisting --  
5 say the tribe decided to go after a -- if there's a  
6 power purchase agreement or something on the federal  
7 side from like the Department of Defense, do you  
8 identify that, or do you help with that area?

9 MR. RADECKI: If we were asked to help, we  
10 could. I believe that any request that comes in  
11 would be evaluated by Western's management and see  
12 if it's within the purview of what we could do to  
13 help someone out. But to what degree that help  
14 might be, I couldn't say at this time.

15 Any other questions? Any other comments?

16 MR. FREDERICKS: I got a question. I'd  
17 like to know who's all in here representing what.

18 MR. RADECKI: Okay.

19 MR. RIEHL: Can you just get it printed  
20 out and make copies for everybody?

21 MR. RADECKI: Yeah, in fact, we can try  
22 and do that, just get a couple copies made real  
23 quick. Would anyone be opposed to just going around  
24 quickly, since we have such a small audience, and  
25 introducing yourself?

1                   Again, I'm Mike Radecki. I work for  
2 Western Area Power Administration. I'm the project  
3 manager for the Wind/Hydro Integration Study.

4                   MR. OLSON: I'm Scott Olson with Ulteig  
5 Engineers here in Bismarck.

6                   MR. BROWN: I'm Casey Brown representing  
7 Spirit Lake Nation, Fort Totten, North Dakota.

8                   MR. HILLMAN: Bob Hillman representing  
9 Nabholz Construction.

10                  MR. RIEHL: I'm Bob Riehl. I'm the Power  
11 Marketing Manager for Western.

12                  MR. REBENITSCH: I'm Ron Rebenitsch with  
13 Basin Electric.

14                  MR. VANDE VENTER: Chris VandeVenter with  
15 Basin Electric.

16                  MR. WEEKES: Fred Weekes, Mayor of Aurora.

17                  MR. FREDERICKS: Terry Fredericks, Three  
18 Affiliated Tribes, Inter-Tribal Council on utility  
19 policy.

20                  MR. RUSCH: Bob Rusch, Stanley  
21 Consultants. I'm the Stanley Consultants project  
22 manager.

23                  MS. MASSEY: Kim Massey, Stanley  
24 Consultants.

25                  MR. BACH: Jim Bach, Western Area Power.

1 MR. McALLISTER: Miles McAllister with  
2 Standing Rock Farms and Standing Rock Sioux Tribe.

3 MR. RADECKI: Are there any other  
4 questions or comments?

5 (No response).

6 MR. RADECKI: And actually if everyone has  
7 an e-mail address on here, I will just commit to  
8 e-mailing you a copy of the attendance roster, if  
9 that's fine. If anybody really needs it today, we  
10 will go get a couple copies made. But I'll commit  
11 to e-mailing it to you. The list isn't that long.

12 MR. McALLISTER: Is there a form on the  
13 Web site for comments?

14 MR. RADECKI: There is no official form  
15 for the comments. Just however you see fit to make  
16 comments on the work plan.

17 MR. FREDERICKS: I got another question.  
18 Some time lines. Say we are ready to move forward  
19 to develop a wind project, for actual development,  
20 we have financing and everything is lined up and  
21 we're ready to go. What would be the time line for,  
22 say, the Three Affiliated Tribes to move, you know,  
23 into the system here and get moving? Say we're  
24 going to do a 150-megawatt wind project.

25 MR. RADECKI: With regards to the

1 Wind/Hydro Integration Feasibility Study and this  
2 overall concept, the time line that currently stands  
3 is that by next June, end of spring, beginning of  
4 summer, we will have a report ready to go to  
5 Congress. What Congress will do with that report at  
6 that time, we can't say. We don't know. I guess  
7 from my perspective, if the Three Affiliated Tribes  
8 has a project they're ready to move forward with, I  
9 would certainly encourage you to do so.

10 MR. FREDERICKS: On, say, that project,  
11 what you're looking at, this study here, one of the  
12 questions would be: Is this looking at tying all  
13 the Tribal lands in on the Upper Great Plains, you  
14 know, all the tribes that are doing projects, say  
15 eight tribes?

16 MR. RADECKI: The study is going to look  
17 at several things, as we went through the Work  
18 Elements, what our historical needs are, which will  
19 really identify how much wind we could integrate,  
20 what the resource potential is on the Tribal lands  
21 within our region, and how much of that we could  
22 actually use. So whether it's every tribe or some  
23 tribes, at this point we just don't know.

24 MR. FREDERICKS: I had another question,  
25 but I forgot.

1           MR. RADECKI: And, Terry, please feel free  
2 to submit comments or questions over the next  
3 several weeks.

4           MR. BROWN: I got a question. My name is  
5 Casey Brown with Spirit Lake Nation. Would there be  
6 any assistance with any available information for  
7 studies that are done by WAPA, wind studies, current  
8 feasibility studies? And would there be assistance  
9 with the power purchase agreements and the  
10 interconnection studies?

11           MR. RADECKI: I'll try your first  
12 question. There is some assistance available  
13 through the National Renewables Energy Lab as well  
14 as Wind Powering America. What resources they have  
15 today I really can't say, but I do know that there  
16 is some assistance available for wind studies  
17 through those organizations. And if you want to  
18 contact me later on, I can pass forward some  
19 contacts to you for that.

20           The second part of your question was  
21 actual integration. Western can provide some  
22 assistance, but there is a process for  
23 interconnecting into the system. That's pretty  
24 straightforward, and we can get you information to  
25 look at the interconnection procedures and

1 processes.

2 MR. BROWN: And also would WAPA be  
3 monitoring any kind of a census for Tribal lands  
4 current output or current draw for the existing  
5 residences and buildings on each site?

6 MR. RIEHL: That's outside the scope of  
7 your study.

8 MR. RADECKI: I don't believe that that  
9 really relates to what we're doing here in the  
10 study. I don't believe so. I think your  
11 co-supplier would probably be better suited to help  
12 you with that.

13 MR. BROWN: And that's where we get  
14 stonewalled. I thought maybe WAPA would have a  
15 little more insight on that. There's other avenues.

16 MR. RADECKI: Any other questions or  
17 comments?

18 MR. VANDE VENTER: Chris VandeVenter with  
19 Basin Electric. To what extent will you be looking  
20 in the study on the interplay between MISO, Midwest  
21 Independent System Operator, and the integrated  
22 system, the IS -- the joint IS that WAPA operates,  
23 how integration of wind on the IS might impact  
24 possible membership in MISO in the future?

25 MR. RADECKI: That's a great question,

1 Chris. Thank you for asking that. I don't know the  
2 answer to that question, but we're waiting to see --  
3 as you may be aware, Western is looking at the MISO,  
4 and this project in particular is waiting to see  
5 what the decision is going to be to determine how  
6 it's going to impact our project. To say that there  
7 is a potential impact, yes. I don't know what it  
8 is, but we'll evaluate it as a decision is made  
9 whether or not we're moving to MISO or not.

10 MR. FREDERICKS: Back to a time line, you  
11 said June is when this will probably be ready, this  
12 next June?

13 MR. RADECKI: June of 2008.

14 MR. FREDERICKS: 2008. That's when it  
15 will go to Congress. Then once it goes to Congress,  
16 you don't know what will happen there.

17 MR. RADECKI: That's correct.

18 MR. FREDERICKS: But it will be full of  
19 information of what the potential is on  
20 reservations, but it won't really address until  
21 Congress or whatever under this scenario any type of  
22 funding and I guess ownership or, you know, how this  
23 would actually work. Is this thing directed just at  
24 Tribal trust lands, or is it all within the  
25 reservation boundaries?

1           MR. RADECKI: I do not believe the word  
2 Tribal trust lands is used, so I can't say as to  
3 whether or not it is refined to just trust lands or  
4 reservation boundary.

5           MR. FREDERICKS: I guess I want to try to  
6 get that clear. Because within Tribal boundaries  
7 there's a lot of fee land and non-Indians live on  
8 there. Say they want to do a wind farm. Can they  
9 do that?

10          MR. RADECKI: That would be a legal  
11 question, and I'd encourage you to put that question  
12 in writing and submit it.

13          MR. FREDERICKS: Okay.

14          MR. RADECKI: Any other questions or  
15 comments?

16                 (No response).

17          MR. RADECKI: Hearing none, I guess I'm  
18 going to officially close the comment session. I'll  
19 be around for a little while if anybody wants to  
20 talk. But I'd like to thank you for your time this  
21 morning. I'd encourage you, if you have questions  
22 or comments on the work plan itself, to please  
23 submit them. Please do so by the dates in the  
24 Federal Register notice which you also have a copy  
25 of in the package that was handed out to you.

1 Please feel free to check Western's Web site for the  
2 status of the project, which is also listed on there  
3 in the Federal Register notice as well as the other  
4 handouts. And just, once again, thanks for coming  
5 this morning. I appreciate your time.

6 (The meeting concluded at 9:29 a.m.)

7 -----

8  
9  
10  
11  
12  
13  
14  
15  
16  
17  
18  
19  
20  
21  
22  
23  
24  
25

## CERTIFICATE OF COURT REPORTER

I, Ronald G. Harnden, a Registered  
Professional Reporter,

DO HEREBY CERTIFY that I recorded in  
shorthand the foregoing proceedings had and made of  
record at the time and place hereinbefore indicated.

I DO HEREBY FURTHER CERTIFY that the  
foregoing typewritten pages contain an accurate  
transcript of my shorthand notes then and there  
taken.

Dated at Bismarck, North Dakota,  
this 3rd day of October, 2007.



Ronald G. Harnden  
Registered Professional Reporter