

**MINUTES - MONDAY, SEPTEMBER 25, 2023 AT 1:00 P.M.
RURAL MINNESOTA ENERGY BOARD
CENTER FOR REGIONAL DEVELOPMENT OFFICE, SLAYTON, MN**

COMMISSIONERS ATTENDANCE:

Blue Earth County Kevin Paap	Mower County..... Dan Sparks
Brown County..... Jeffrey Veerkamp	Murray County Dennis Welgraven
Cottonwood County... Tom Appel	Nicollet County Curt Zins
Faribault County John Roper	Nobles County Gene Metz
Freeborn County Absent	Pipestone County Dan Wildermuth
Jackson County Don Wachal	Redwood County Dennis Groebner
Lincoln County Absent	Renville County John Robinson,
Lyon County Todd Draper	Rock County Gary Overgaard
Martin County Steve Flohrs	Watsonwan County..... Scott Westman

OTHERS PRESENT: Jack Kolars (Nicollet County), Nathan Dahl (Lyon Co Coalition), Sam Ritchie (RMEB Lobbyist/Fryberger), Kayla Schmidt (Traverse County), Alan Wold, Nadya Bucklin (SRDC), Kim Murphy (SRDC), Jason Walker (SRDC), Chris Webb (SRDC), Robin Weis (SRDC)

CALL TO ORDER / PLEDGE OF ALLEGIANCE / INTRODUCTIONS

Chair Appel called the meeting to order at 1:07 P.M. followed by the Pledge of Allegiance.

PRESENTER, MICHAEL REESE, Renewable Energy Director at the University of Minnesota West Central Research and Outreach Center (WCROC), Morris joined the meeting to explore and discuss economic development opportunities in using wind and other renewable energy resources to create green hydrogen and ammonia in Minnesota. His presentation was titled *Green Hydrogen & Ammonia: Implications for MN & Beyond*. [Note – a state-wide audience attended the RMEB Zoom meeting for this presentation. To ensure an accurate start time for the larger audience, this event was placed at the top of the agenda.]

Reese explained that transitioning green nitrogen fertilizer is a key element to improving the carbon footprint within production agriculture. He cited that 20% to 25% of greenhouse gas emissions (GHG) in the world are attributed to agriculture. Likewise, 2% of GHG emission comes from ammonia and nitrogen.

The discussion led to talking about the need to decarbonize Midwest Industry and utilities using zero-carbon hydrogen. Wind and solar can be used to produce green hydrogen which then can be converted into urea fertilizer or ammonia. Research at the WCROC has shown the potential for ammonia as an alternative fuel for grain dryers, tractors, and trucks. Green hydrogen can also be used as a renewable diesel, jet fuel (SAF), methanol, and ethanol. It requires capturing, and recycling, carbon dioxide, normally emitted via fermentation to produce the fuels. A switch to hydrogen and ammonia can fuel trucks, mining equipment, tractors, train engines, and ships. Meanwhile, displaced energy can be used in processing ore into iron pellets as well as the carbon purification process within steel making currently responsible for 8% of global GHG emissions.

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One challenge in the production of nitrogen fertilizer is that the process is water intensive using roughly 2.3 tons of water per ton of ammonia produced. Some, however, is recovered. Currently, most ammonia is produced in the southern Gulf states. Louisiana tops the charts producing over 4 million tons.

Other barriers include: electrolyzer supply, scale, financing, developing the right partners, storage (anhydrous ammonia vs. urea), experience in the field, price/risk management, and sophisticated competition.

Producing green ammonia in Minnesota makes economic sense. Farmers, in the state, spend between \$500 million to \$1 billion per year on nitrogen fertilizer. Reese stated that if green nitrogen was implemented, there is a chance farmers could have ownership of it through cooperatives.

Reese shared that stated US nitrogen fertilizer demand could be met with approximately 50,000 MW of nameplate wind energy capacity - current US wind generation is 105,583 MW of nameplate capacity.

The WCROC recently secured \$18.6 million to scale up their original wind to ammonia to produce one metric ton per day, 18 times their current capacity.

Reese continued, "It all boils down to whether it works economically or not."

The Inflation Reduction Act provides a \$3/kg of hydrogen production incentive with a direct pay option, and this has dramatically changed the playing field making production and use economical. Additionally, farmer-owned cooperatives could utilize renewable hydrogen to produce anhydrous ammonia, urea, methanol, sustainable aviation fuel, and other molecules.

The question remains on the interest in the area and how to move forward from here.

Following the presentation, the RMEB had the opportunity to ask questions.

Commissioner Wildermuth asked if the water for the process needs to be fresh as it requires a high volume of water. Michael Reese indicated it depends on what you are using it for. It is a large volume of water but far less than an ethanol plant would consume. You could use poor-quality water, but it would still need to go through a filtering process to produce the hydrogen.

Commissioner Wildermuth went on to state that our rural water had a reverse osmosis system that they used quite successfully but they had to shut it down because the ethanol coming out was so high in nitrates. He then questioned if basic wastewater could go through reverse osmosis and be used in this process. Reese responded, "The answer is Yes. But the question is could it be used economically? It would still need to be filtered. The real answer is I don't know. I don't want to give you an answer that may not be correct. I would prefer to follow up with the board."

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Commissioner Metz asked how will this model work if someday the federal subsidy is gone for American recovery funds and wind production. And also asked when could that happen. Reese indicated he doesn't have a crystal ball and stated, "It depends on so many factors. There will be a time when natural gas and renewable sources will be equal. We are building a wind infrastructure. We are building a solar infrastructure. Natural gas has a lot of applications worldwide. It is a good question but a tough question to answer.

Commissioner Metz also asked how long it takes to permit a site like this to which Reese responded, "It is a 2-3 permit process."

Commissioner Appel asked if there are other agencies involved in permitting. Reese indicated the MPCA, MDA (ammonia), and EPA (Risk mgmt.) are involved.

SRDC Community Development Planner Walker asked, "What are the next steps to make our region look attractive to new business and industry if you are around here working with EDA, Business Community, Industrial Parks, etc." Reese suggests talking to COOPS, MDA, or contact me (Michael Reese). He also advises to look for opportunities at the state and federal level.

Alan Wold said he has noticed that where we have the most wind is in a water-poor area and asked if Reese envisions each windmill will be using groundwater to make hydrogen. Where there is more water there is less wind. Will groundwater eventually be mined? Reese felt that this is a possibility and stated that MN in general has good water resources. Wold then stated, "The water that is pumped locally will not return to the same area." Reese confirmed that to be a valid statement.

INTRODUCTIONS AND ANNOUNCEMENTS:

AGENDA:

- Update agenda to add Sam Ritchie (RMEB Lobbyist/Fryberger) to the agenda under the Legislative Committee

M/S/P Commissioner Wildermuth /Commissioner Wachal to approve the agenda with the addition of adding Ritchie to the agenda.

MINUTES:

M/S/P Commissioner Metz /Commissioner Paap to approve minutes from July 24, 2023.

FINANCIAL REPORT:

Treasurer Wachal presented the financial report and bills.

Discussion: Gene Metz we have one county not contributing financially. Jason will check into it.

M/S/P Commissioner Welgraven/Commissioner Overgaard to accept the financial report and pay the bills for \$7,210.00

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SUBCOMMITTEES AND RMEB BUSINESS:

- **Executive Committee:** *Appel (Chair), VanDeVere, Wildermuth, Wachal*

Chair Appel reports the executive committee has not met, however, there are a couple of items to address. The MN Public Utilities Commission is convening the Public Utilities Stakeholder meetings on revising the permitting processes. Chair Appel did convey that the Energy Board does want a seat or two at the table. He asked for a discussion on how we move the process along. Chair Appel received an email about a meeting to be held Friday, October 6, 2023, from 1:30 p.m. – to 3:30 p.m. that he will forward to the SW Commission members. The group agrees that the executive committee should attend the meeting either virtually or in person. The assumption is there will be several state agencies present. Chair Appel again asked the group if they had suggestions for moving the permitting along.

Sam Ritchie suggests being present and involved in the meetings would be most helpful. Sam will be involved in the meeting and suggests the executive committee discuss off-line after this meeting how to best attend the meeting.

Dodge County is still dealing with 4+ years of trying to get permitting and process through. Three to four months ago we had a letter sent to the *Star Tribune*, and they didn't publish it. The question is how much we want to be involved in this. Dodge and Traverse Counties seem to have issues that are individual controversial issues. The Commission agrees that we want to help but don't want to get too deep into the weeds. Our Commission should be a resource only at this point.

- **PACE (Property Assessed Clean Energy)** *Wachal (chair), Paap, Metz, Wildermuth, VanDeVere*

Chair Wachal shared that the PACE committee met today at noon. The available funds for PACE SEP are approximately \$120,000 and PACE ARRA funds are \$161,000. SRDC was included in a Minnesota Department of Commerce application that would allow increased financing capacity in the amount of \$300,000 for the RMEB PACE service area. With these extra funds, additional outreach may be required. The committee continues to support interest rates for PACE programs at 3% under prime with a 3% floor. There is one borrower with concerns. Contacts are made to any delinquent borrower. The MN Department of Commerce is working to expand the capacity of energy auditors in Minnesota. Commissioner Metz added that discussions are taking place with a local lender about the possibility of selling PACE special tax assessments. The PACE committee meets on an as needed basis.

- **Legislative Committee** - *Metz (chair), Appel, Flohrs, Wildermuth, Ritte*

Chair Metz reached out to Sam Ritchie at the end of last week to see if he could advise on what may be coming up in the next session.

Sam Ritchie – The legislature is in the off-season between sessions. Invites to fundraisers and events are picking up. A few things you have likely seen in the news:

- The School Resource Officer discussion has taken up time. There had been talk of a special session which has not been scheduled at this point.
- The “Use of Force Law” seems to have worked itself out in 2023.

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- Hiring of a Cannabis Director will be on the agenda for the new Legislative session.
 - They did pass the two-year budget with a focus on a bonding bill and policy issues.
 - Left over from 2023: they passed the new tax bill but it had an error in it so they will need to come back to session and address this.
 - Energy Policy – a lot of focus last year on waste to energy, specifically the HERC Facility.
- The new legislative session starts Feb 12, 2024, so we will have a couple more meetings prior to that for discussion about what we want to address.

The commissioners had several questions for Sam Ritchie:

Chairman Appel shared that the SW Solid Waste Commission met this morning with several members from the MPCA in attendance. The discussion was regarding the lining of construction and demolition landfills. The discussion was around the main question which is what is the answer for all the garbage we produce? What is the end goal? We have landfills in our region that will close. Ritchie feels this is a tricky issue agreeing that the main question is what we do with the trash. We need to get elected officials on board, and we need them involved in discussions. This board needs to get involved. This group could help frame the need and impact the timeline with our lawmakers.

Commissioner Metz stated that in past years we've had good luck reaching out 1-2 months before a Legislative session starts. Should we do that in conjunction with the SW Solid Waste Commission? Ritchie's response is, "Yes!" Ritchie shared that the MPCA is doing a holistic look at waste this summer. A pre-planning session would be a good thing. This winter we should get our heads together for a collective approach.

Commissioner Metz also asked if Ritchie felt there is traction for consideration of garbage-burning electricity as a renewable source, or is that dead in the water? Ritchie's reply indicated this was talked about last year and without an election this year, it doesn't seem likely.

Updates on Energy projects and issues from your respective counties

- **Blue Earth:** Continuation of what we had been talking about. Had the entire board and staff together to discuss landfill concerns. We toured the Morris facility in 2015. We haven't taken any steps forward. We are not where we need to be yet.
- **Brown:** Nothing to report
- **Cottonwood:** Still working on Big Ben Wind Plan that keeps getting pushed back. Construction is to start in the 4th quarter of 2024. We recently received a call from the developer indicating they have a problem. Tom will be returning a call to him later today.
- **Faribault:** We just got another 4-megawatt CPU north of Blue Earth. The interesting thing is that the City of Blue Earth is putting it up which is uncommon. Jason: The City of Marshall has a 10-megawatt CPU (solar) north of town.
- **Freeborn:** Absent
- **Jackson:** Nothing to report.

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- **Lincoln:** Absent
- **Lyon:** The City of Marshall has a 10-megawatt CPU (solar) north of town.
- **Martin:** Faribault & Martin counties burn a lot of garbage at Excel. We are worried about how long that plant will be open.
- **Mower:** We signed final easements to move forward with a solar project near Taopi, MN.
- **Murray:** We have a couple of small projects going on.
- **Nicollet:** Nothing to report.
- **Nobles:** Wind turbines are turning but not online yet.
- **Pipestone:** Solar projects going on for 3-4 years. Not moving. Excel is talking about re-purposing some of the existing transmission lines. Per Jason, they are still figuring out routing. Regarding the Magellan pipeline. The MN Public Utilities Commission held a public hearing at Pipestone County courthouse. The plan had been to re-route around the Pipestone National Monument. The pipeline has been shut down because Magellan didn't renew the permit.
- **Renville:** In the last couple of months, we have had requests for four 1-megawatt solar gardens. We also 5-megawatt project coming.
- **Redwood:** We are close to determining a powerline route.
- **Rock:** Approximately 3 – 4 months ago Nature's Energy out of Denmark proposed a project to turn hog manure into methane in Rock & Pipestone Counties. That company has since been bought out by Shell Oil for 2M. They are no longer doing business in America.
- **Watonwan:** Nothing to report.

SW CERT:

Community Development Planner Walker shared that CERTS will be hiring several regional coordinators. Development Planner Bucklin will be handling the day-to-day work with CERTS. She has been doing SEED grant outreach and has been doing outreach to food shelves. Seed grants are \$5k – \$10k promoting energy and renewables. The Seed grant can cover labor, and anything education-related. The deadline for SEED grant applications is in two and a half weeks. If you are aware of anyone who may benefit, please send them our way.

There has been a lot of onboarding with CERTS. In addition to the 5 new regional coordinators, we have a bunch of new AmeriCorps sustainability coordinators out there. Certs will be doing orientation and outreach for the next several months.

Our new planners introduced themselves to the RMEB: Nadya Bucklin, development planner, and Chris Webb, Transportation planner.

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OTHER BUSINESS AND REPORTS:

NEW BUSINESS

Community Development Planner Walker shared that there has been a change to community solar. Community solar can now go up to 5 megawatts instead of 1 megawatt. And now to be a subscriber you don't have to live in the county or a contiguous county, you may be anywhere in the state.

Additionally, you are now required to have 25 subscribers per megawatt and about 55% of them must be public interest with 30% closed moderate income. Those with a low to moderate income get a bigger percentage of savings on their account.

The only other new thing is there are new caps on how many new solar gardens can go in place. There is a 100 megawatts cap for the next 3 years. By 2030, the cap will be 60 megawatts.

Chair Appel indicated the next meeting is scheduled for November 27, 2023, and there is a list below of the proposed 2024 meeting schedule. May 27, 2023, is Memorial Day and it is agreed to move that meeting to May 20, 2023.

Chair Appel's term comes to an end at the end of this year (December 2023). We will need a nominating committee for the agenda in November 2023. Is there anyone who is willing to serve on the nominating committee? Commissioner Overgaard volunteers. Chair Appel will make calls to recruit others for the nominating committee. If anyone is interested in serving on the nominating committee, they should contact Commissioner Overgaard or Chair Appel.

NEXT MEETING: November 27, 2023.

- **PROPOSED MEETING DATES IN 2024:** Jan 22, March 25, May 20, July 22, Sept 23, Nov 25

FUTURE MEETING TOPICS / GUESTS - Community Development Planner Walker, will coordinate with having Excel Energy as a guest either in person or virtually.

Following this morning's introduction to the University of Minnesota West Central Research and Outreach Center (WCROC), Morris, MN, we need to plan a visit to the site. RMEB Staff Walker is asking for a tentative date. Would we want to have it on the same day as a regularly scheduled meeting date? This has been difficult to schedule due to farming schedules. The commission feels a tour next spring would be best. June 3, 2023, would be the best option in lieu of the May 20, 2023, meeting. RMEB Staff Walker, will look into that date and schedule a tour.

Commissioner Metz raised the question if we would consider a joint meeting of RMEB and the Solid Waste Commission on November 27, 2023. The RMEB agrees that a joint meeting with the SW Commission would be beneficial. RMEB Staff Jason will coordinate the meeting for November 27, 2023.

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ADJOURN:

Chair Appel adjourned the meeting at 3:00 PM.

Minutes prepared by Kim Murphy, Development Planner at SRDC.

Reviewed by:

Approved by:

Secretary

Chairman