

**KANDIYOHI COUNTY AND CITY OF WILLMAR ECONOMIC DEVELOPMENT COMMISSION (EDC)  
AGRICULTURE AND RENEWABLE ENERGY DEVELOPMENT (AG) COMMITTEE**

**MINUTES**

**March 21, 2024**

**EDC Board Room, Willmar, and Via Zoom Video Conference**

Present: Rollie Boll, Kevin Halvorson, Noah Hultgren and Nate Reuss

Excused: Michelle Marotzke, Business Development Manager

Absent: Erik Hatlestad, Larry Konsterlie, Dustin Kotrba, Dan Lippert, Keith Poier and Dan Tepfer

Guest: Mike Reese, Director of Operations, West Central Research and Outreach Center

Media: Levi Jones, West Central Tribune (via Zoom)

Staff: Aaron Backman, Executive Director

Secretarial: Diane Beck, Legal & Administrative Assistants, Inc.

Chairperson Kevin Halvorson called the meeting to order at approximately 7:50 a.m. and reported a quorum was not present.

**AGENDA**—A quorum was not present to approve the agenda.

**MINUTES**— A quorum was not present.

**West Central Research and Outreach Center Update (WCROC).** Aaron Backman welcomed Mike Reese, who provided a brief bio and shared he is currently the Green Ammonia Research Lead, WCROC Director of Operations in Morris (Stevens County) and has been working on renewable energy, specifically green ammonia, for approximately 20 years. He was the former Renewable Energy Director of Operations at WCROC in August 2022.

Reese shared a PowerPoint, *Green Hydrogen and Ammonia. Implications for Minnesota and Beyond*. He noted several funding acknowledgements at the beginning of the presentation and shared the following highlights:

- Current production of synthetic nitrogen fertilizers. There are currently no plants in Minnesota. China is the leading producer with the United States being second.
- Current use of nitrogen fertilizers in Minnesota. Minnesota ranks fourth nationwide in corn production.

- Green Ammonia: An Elegant Solution for Minnesota. Four-step process in the production of urea (green urea for nitrogen fertilizer).
- Following problems solved by producing green nitrogen fertilizer in Minnesota:
  1. **Significantly lowers the carbon intensity of Minnesota agricultural products.**
    - Transformational green ammonia is a drop-in replacement
      - Green ammonia can be used for grain drying and for tractors (which is not done by many farmers).
      - Green ammonia is used by larger companies for small grain drying.
  2. **What problems do we solve by producing green nitrogen fertilizer in Minnesota?**
  3. **Improves security of supply.**
  4. **Increases economic resiliency in Minnesota, especially rural communities.** He noted this slide is important to remember. He also discussed available tax credits.
    - **Next generation ammonia production from wind and solar.** Reese shared they have the first wind solar ammonia pilot plant in the world and will be building another plant in Morris. Funding was provided through the U.S. Department of Energy: Next Generation Ammonia Production from Wind and Solar. They are working with RTI and Casale and other entities and are looking at using ammonia for power.
    - **Transformational green ammonia as hydrogen carrier and fuel.** Reese explained the combustion of renewable ammonia possible uses.
    - **Minnesota is the world leader of green ammonia.**
    - **Ammonia: Transformative Impact.** Cost of storage of hydrogen is costly. Ammonia takes less storage space compared to hydrogen.
    - **Options for green H<sub>2</sub> gases and fuels:**
      - Blend with natural gas
      - Methanol production
      - Ethanol production
      - Sustainable aviation fuel. This is gaining traction in Minnesota. Interest is coming from Delta, Xcel Energy, Eco Lab, greater Minneapolis/St. Paul, Region 9 and other entities. This needs to be done on a large scale.

*Responses to Questions:*

- Reese explained about the corrosion on equipment.
- Green ammonia and green urea can be used by farmers for grain drying and is relatively inexpensive. Financial options are available.
- The Morris facility may be operational in approximately three years or longer.
- It is possible for ammonia or hydrogen to be pipelined, but it may be more cost-effective to truck.
- On what targets could this committee focus? Reese felt the Ag Committee could focus on the ethanol industry working on carbon solutions, pipeline and the capability to produce hydrogen onsite. Another focus could be a sustainable aviation fuel plant for farming operations. Reese shared it is important for the committee to be aware of and understand the tax credits available and share with other entities. A supply chain needs to be developed for green ammonia and green urea. There is a possibility for billion dollar projects; however, capital is needed. There are many uses for CO<sub>2</sub>.
- Reese suggested Pete Wyckoff, Assistant Commissioner of Federal and State Initiatives, Minnesota Department of Commerce, would be an excellent speaker for a future meeting. He

also shared Wyckoff will be speaking at the Midwest Farm Energy Conference in Morris on June 26-27. Backman encouraged a few committee members to attend.

- Reese suggested Peter Carter, Executive Vice President – External Affairs for Delta Airlines, would also be an excellent speaker for a future meeting.

Reese will forward his PowerPoint presentation to the EDC, which will be shared with the committee.

## **NEW BUSINESS**

**Donation request, \$250 for a Healthy Earth, Healthy Kids Day.** Backman shared the EDC received a request from the Willmar YMCA to sponsor Healthy Earth, Healthy Kids Day on April 27 at the Willmar Civic Center. The event is free to participants and features exhibitors, food, kids' activities and more. The consensus of those present was to support a donation of \$250 to Healthy Earth, Healthy Kids Day.

## **REPORTS**

**Industrial Hemp Exploratory Subcommittee.** Backman shared Michelle Marotzke recently attended a site selector conference in Kentucky and was able to make connections with industrial hemp value-added site selectors. The Industrial Hemp Exploratory Subcommittee is staying connected regarding value-added industrial hemp projects. There are no additional details on Dun Agro.

**Regional Food Business Center (RFBC).** Nate Reuss shared an update on the RFBC and announced it will celebrate one year of operation as a USDA program in June. Reuss noted Marotzke has completed a good share (50%) of the objectives of the program. The Kandiyohi County Food Shelf received new refrigeration units through a RFBC grant and a grocery store in Fairfax will be refurbished into a bakery with some RFBC grant funds. Reuss announced an upcoming project between Ridgewater College and a partner in regard to its meat cutting program. Reuss commented the RFBC scale is large and may not meet the standard of this committee's projects. Backman announced the opening of the New London Food Co-op and shared the New London Bakery is for sale. He inquired if there is an opportunity through RFBC to assist with some resources for new owners. Reuss commented it may fit into a funding resource, if not the RFBC.

### **Attendance at Ag Events.**

- Chair Halvorson provided highlights of the Ag Expo in Mankato.

#### **AURI Events:**

- Virtual Novel and Specialty Crop Series, Part 1, March 21, 2024
- New Uses Forum 2024: Bioindustrial Innovations and Opportunities, April 9, Mayo Health System Event Center, Mankato.
  - Backman indicated the EDC is willing to sponsor one or two committee members to attend.

**ADJOURNMENT**—There being no other business, the meeting was adjourned at approximately 8:46 a.m.

**NEXT MEETING**—The next committee meeting is **tentatively** scheduled for 7:30 a.m., Thursday, April 18, 2024, at the EDC Board Room and via Zoom video conference.

**Note:** Chair Halvorson commented the May meeting could be held if the April meeting is cancelled. Ag Committee members will be notified prior to April 18.