

Rotary



Club of Williamston Sunrise

Club Leaders



Kay Erin Goluska
President



Wanda Bloomquist
President-Elect



Gene Klco
Secretary
Webmaster



Laska J Creagh
President-Nominee
Membership Chair



Steve Terry
Treasurer



James Conroy
Club Director



Elgar Brown
Sergeant-at-Arms



Mark Steinberg
Rotary Foundation Chair



Narda Murphy
Youth Services Chair



Brian Tort
iPast President



Brian Tort
Assistant Governor

Speakers

January 19, 2021

Colin Kummerfeldt
from Apex Wind Energy

Kalamink Wind and Wind Energy

January 19, 2021

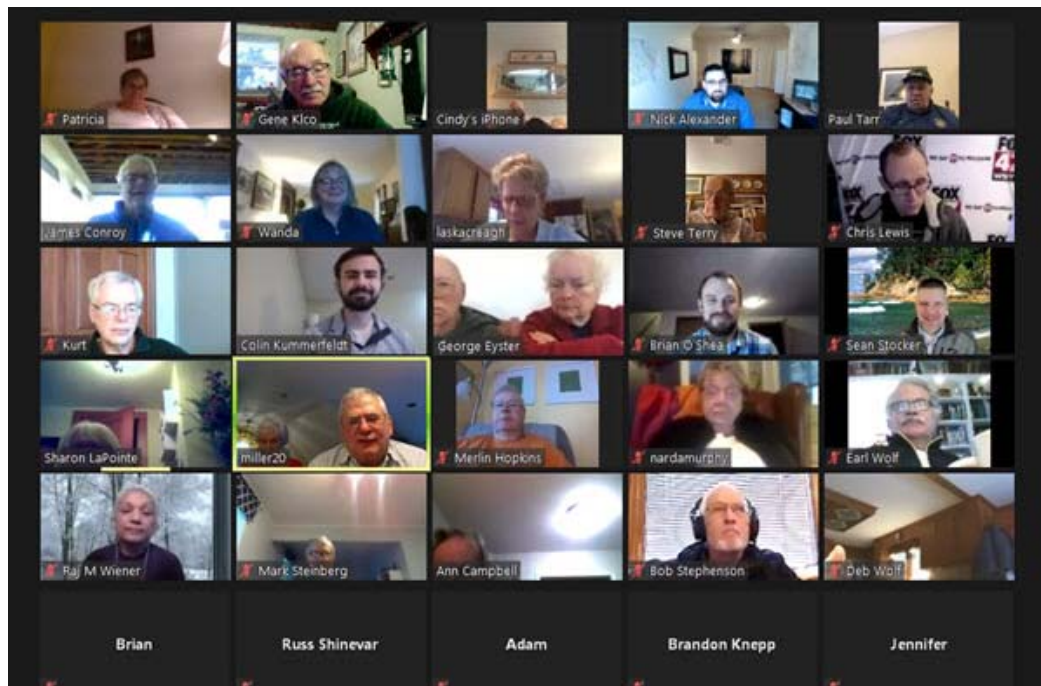
Kay Goluska

01/19/21-Kalamink Wind

By Gene Klco on Tuesday, January 19, 2021

General Discussion:

- Attendance: Members=23, Associate Members=2, Guests=7
- President Elect Wanda ran the meeting in President Kay's absence



- After the Pledge of Allegiance
 - Wanda suggested we skip the Happy Dollars and move on the guest speakers
- Guest speakers today were from **Kalamink Wind Energy**:
 - **Colin Kummerfeldt, Nick Alexander, Sean Stocker, Brian O'Shea**

Board Meeting

January 26, 2021

Ed Foster, Charlotte

Club, Past District

Governor

Satellite Clubs

February 16, 2021

Carol Siemon, Ingham

Co. Prosecutor

Juvenile Justice



- Nick lead the discussion
 - Kalamink Wind is part of Apex Clean Energy

Wind Energy in Michigan



- **2,300 MW+** of installed wind power¹
- **5%** of all in-state electricity production in 2019¹
- **Ranks 13th** in nation for installed capacity¹
- **\$4.2 billion** capital investment in wind projects through 2019¹
- **4,000+** direct wind industry jobs in MI in 2019²
- **27 companies** in MI currently produce parts and components for wind turbines²
- **\$31 million** in annual state and local tax payments by wind projects in MI²

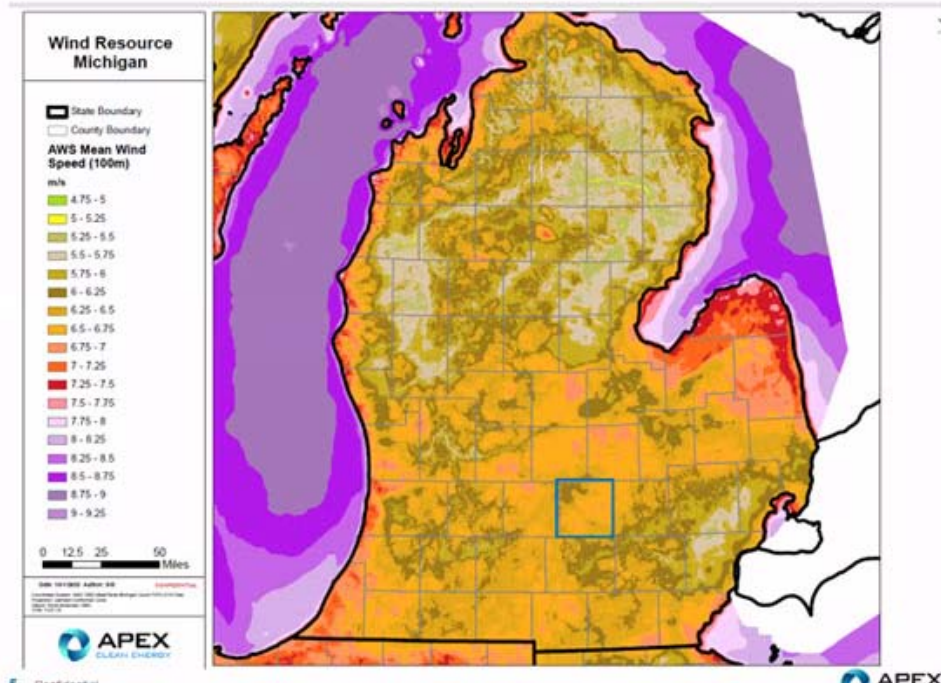
1&2 WEA Fact Sheet

Fact Sheet: Wind Energy in Michigan

APFX

- They need steady wind and certain speed to make wind energy effective
 - Larger swept areas of the current windmills
 - Capture more wind and the wind speed requirement is reduced
 - Initially most Michigan windmills were in the Thumb area

Michigan Wind Resource



- o Kalamink Wind
 - Has lots of renewable energy projects
 - Also high power transmission lines are required
 - Looking at an area near Dansville for a potential wind farm

Kalamink Wind: Project Overview

An Opportunity to diversify Michigan's Energy Portfolio while benefiting the economy and environment

Why Here

- ✓ **State demand** for renewable energy sources
- ✓ Economical **wind resource**
- ✓ Existing high-voltage **transmission** lines
- ✓ Minimal **environmental** impacts

Project Summary

- Up to **300MW** (~72,000 homes powered)
- Currently evaluating land in **5 Townships** – Ingham, Leroy, Stockbridge, Wheatfield, White Oak
- **Community-based** project with financial benefits spread among all participants, regardless of acreage.

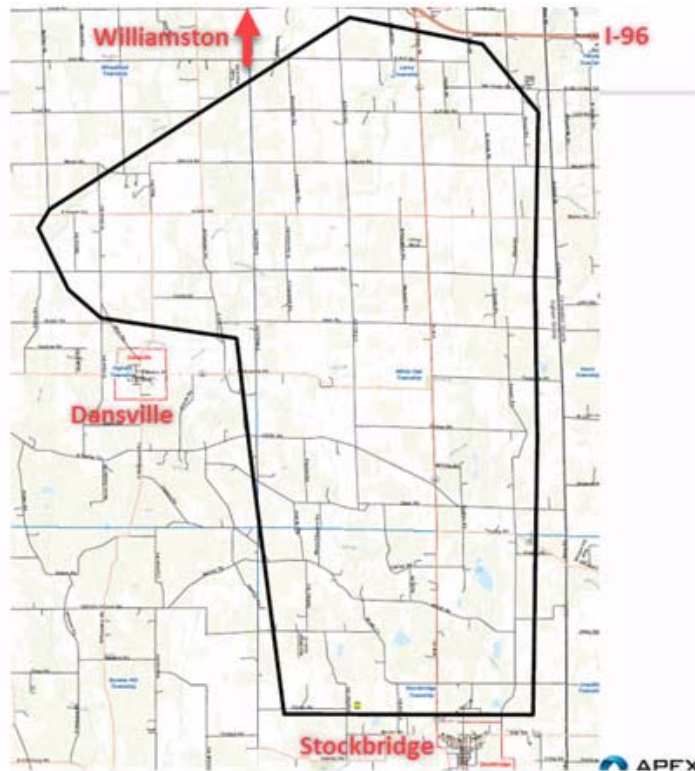
Project Schedule

- Anticipated start of commercial operation in **2024**



- Community based project with financial benefits to the community
- In the early stages - looking to be up and running by 2024
- Lots of studies to be done
 - o Wildlife & Environmental studies
 - o Community engagement
 - o Meteorological Towers
 - o Permitting (zoning, airspace, environmental)
 - o Electrical sale contract
- It can be a 4-7 year project
- With 12-18 months of construction
- Areas of interest:

Area of Interest
(AOI)



- Economic impact would be great
 - It would provide tax income to many school districts
 - Williamston, Dansville, Stockbridge, Webberville, Fowlerville

Economic Impact Study Results

Total Economic Output

Total Economic Output = Sum of all local economic growth created by the Kalamink Wind Project (excluding electricity sales)

- An equivalent measure to Gross Domestic Product (GDP)
- Includes employment earnings, local investment, landowner payments, and property tax payments

Total Economic Output For Project Live (GDP)			
	Construction	Operations	Total
Townships	\$30,715,689	\$8,605,096	\$39,320,785
Ingham County	\$45,088,331	\$11,857,601	\$56,945,932
State of Michigan	\$126,589,597	\$16,000,884	\$142,590,481

\$56.9 Million in new economic growth
for Ingham County from Kalamink Wind

- Questions:
 - How close are the windmills to each other?
 - Can be 1 ♦ times the height of the windmill minimum
 - Practically - farther due to wind shadow
- Advantages:
 - Wind energy has no emissions

- Helps companies stabilize costs - primarily mainly up-front costs
 - Provides money for residents in the area
 - New job - wind turbine technology
- They showed a video from people in Isabella County where windmills have been installed
 - All positive feedback
 - Farmers and landowners get income as do the cities with tax dollars
- Q/A:
 - Comparison to gas and coal fired power plants?
 - More efficient than Natural gas and coal with no emissions
 - Good system to use with solar
 - In northern states where sun isn't as prevalent, wind supplements solar
 - Life expectancy?
 - 30 + years with new technology
 - If need to replace, land owner can extend the contract
 - When start, a decommissioning plan & bond is put in place
 - May not replace the tower - just blades & turbine
 - 85% is easily recyclable (ex. Blades)
 - Blades fiber composite
 - Can grind old blades and add to concrete or other projects
 - Looking at blades made with a more recyclable material
 - Bird killers?
 - Part of site plan studies include bird issues
 - If done properly, would have little impact on local birds
 - Lake Michigan project - more wind
 - Off shore windmills have more issues
 - Permitting is harder
 - Costs are higher
 - Still working on, but inland better now
 - Fire on a turbine?
 - Rare and they are spread out and away from most buildings, etc.
 - Sound issues?
 - Placed ½ mile from houses
 - Noise in 45-55 db range (about same as AC unit)
 - Mostly on good farm land - no housing nearby
 - Agricultural land good
 - Generally flat & have more land space to work with
 - Away from houses - open land - best sites
 - Battery storage?
 - With traditional power plants have grid restraints
 - Power grid radiates from plant
 - Windmills use distributed energy distribution
 - More small power sources on distributed lines
 - Current plan doesn't have battery storage as part of it
 - May change
 - Contacts:
 - Colin Kummerfeldt: colin.kummerfeldt@apexcleanenergy.com
 - Sean Stocker: sean.stocker@apexcleanenergy.com
 - Brian O'Shea: brian.oshea@apexcleanenergy.com
 - https://www.kalaminkwind.com/about_kalamink_wind
- We skipped the Happy Dollars as the meeting ran overtime
- Finished with the 5-Way Test

January Birthdays

By Gene Klco on Wednesday, December 30, 2020
 Wishes for a Happy Birthday in **January** go out to:

Merlin Hopkins January 15

Wanda Bloomquist January 25

Thought for the Week

By Gene Klco on Tuesday, January 5, 2021

◆ *It's not getting what you want, it's wanting what you got.* ◆ Cheryl Crow ◆ Soak up the Sun ◆

Joke of the Week

By Gene Klco on Tuesday, January 5, 2021

Seenager

I **JUST** discovered my age group! I am a **Seenager** (senior teenager).

I have everything that I wanted as a teenager, only 55-60 years later. I don't have to go to school or work. I get an allowance every month. I have my own pad. I don't have a curfew. I have a driver's license and my own car.

I have ID that gets me into bars and the wine store. I like the wine store best. The people I hang around with are not scared of getting pregnant, they aren't scared of anything, they have been blessed to live this long, why be scared? And I don't have acne. Life is Good!

Also, you will feel much more intelligent after reading this, if you are a **Seenager**. Brains of older people are slow because they know so much. People do not decline mentally with age; it just takes them longer to recall facts because they have more information in their brains. Scientists believe this also makes you hard of hearing as it puts pressure on your inner ear.

Also, older people often go to another room to get something and when they get there, they stand there wondering what they came for. It is **NOT** a memory problem; it is nature's way of making older people do more exercise.

SO THERE!

I have more friends I should send this to, but right now I can't remember their names. So please forward this to your friends; they may be my friends, too.