Committee Members Present:

<table>
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<tr>
<th>Rachael Bisnett</th>
<th>Libby Hill</th>
<th>Tim Patton</th>
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<tr>
<td>Thomas Carey</td>
<td>Victoria Hutchen</td>
<td>X Nicolai Schousboe*</td>
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<td>Tom Cushing</td>
<td>Joe Jaskulski</td>
<td>X Tim Schwartz</td>
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<td>Jack Darin</td>
<td>Nathan Kipnis</td>
<td>X William E. Siegfriedt*</td>
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<td>Deanna Dworak</td>
<td>Diego Klabjan</td>
<td>Jeff Smith</td>
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<td>Joel Freeman</td>
<td>Kristin Landry</td>
<td>X William Wagner</td>
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<td>Kevin Glynn</td>
<td>Richard Lanyon</td>
<td>X Fred Wittenberg</td>
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* Committee Co-Chair

Staff Present:
Catherine Hurley, Sustainable Programs Coordinator

1. CALL TO ORDER / DECLARATION OF QUORUM
A quorum being present, Co-Chair Nicolai Schousboe called the meeting to order at 6:35 pm.

2. APPROVAL OF MEETING MINUTES
Minutes from the meeting on April 27th were discussed by the members present. Dick Lanyon provided feedback on three typos to be corrected. Fred Whittenberg requested that the specifics from Joe Jaskulski’s comments at the last meeting regarding the feedback he had received from developers he contacted regarding the City’s RFI be included in the meeting minutes. Joe Jaskulski confirmed that these remarks were provided by his contacts knowing that they would be reported to the committee as a whole and were in agreement that they be included in the meeting minutes. Mr. Whittenberg also stated that he felt the comments provided during citizen comment from Andrew McGonigle should be expanded to more accurately represent his statements. The committee approved the minutes as revised. Ms. Hurley will update the minutes and redistribute to the committee and post on the City’s website.

PUBLIC COMMENT
Co-Chair Nicolai Schousboe announced that public comment would be held at the end of the meeting following the business of the committee. However, he stated that if individuals were not able to stay for the whole meeting but wanted to make a public comment they could so at this time.

Jonathan Nieuwsma stated that he would like to make a comment. Mr. Nieuwsma lives at 1408 Dempster in Evanston and is here as himself although he does have a professional contract relationship with a small wind developer and does some work with the Wind Energy Association. Mr. Nieuwsma made several statements on the current issues facing land-based wind farms including the limited number of remaining sites to develop land-based projects due to set-backs enforced by many jurisdictions. He stated that there is also a capacity issue with land-based wind farms where additional transmission capacity would need to be added for more projects to be built. He mentioned that cost is often an issue cited for off-shore wind farms and that it is true that off-shore projects are currently 2 or 3 times more expensive than land-based. However he stated that the long term outlook indicates that this cost will come down. Land-based wind
development is a much more developed and mature market and the costs for land-based projects have come down in the past few years. Another benefit of off-shore wind projects is that they lend themselves better to larger wind turbines that can generate more energy and are of a size that would not be able to be built on land. The supply curve for off-shore wind projects also offers a better match to the demand curve. This needs to be validated through a wind resources study.

The remainder of public comment will happen at the end of the meeting.

3. COMMITTEE REPORTS

A. Update on finalization of working group reports

Co-Chair Nicolai Schousboe asked if any of the working group chairs wanted to provide any comments on their final reports. Having no comments, Ms. Hurley stated that copies of these working group reports would be posted on the City’s Website.

4. STAFF REPORTS

A. Committee presentation to City Council on findings is scheduled for June 20th

Ms. Hurley stated that the Wind Farm Committee was scheduled to present their findings to the City Council at a special meeting on June 20th. The summary document would need to be submitted to her by Monday June 13th at the latest. She would leave it up to the committee to organize the presentation of this information to the City Council at this meeting.

It was asked by the committee whether there would be a process to collect comments on the working group reports. Ms. Hurley stated that she did not believe it was within the Committee’s charge to elicit input on the working group reports; however this is a recommendation that could be made to the City Council as part of the final report and presentation.

Co-Chair Nicolai Schousboe asked that if anyone on the committee had further comments on the individual working group reports, said comments should be provided those directly to the chairs of the individual working groups.

5. UNFINISHED BUSINESS

A. Committee presentation to City Council on findings scheduled for June 20th

Co-Chair Nicolai Schousboe announced that several members of the Committee and a few citizens traveled on Friday, May 13th to visit some wind farms in Indiana and view them from a distance of 7-miles and 5-miles as well as drive to the base of one turbine and walk around it. The weather on the day of the trip was overcast with scattered rain but the attendees were still able to visit the wind turbine locations.

Several members of the trip from the Committee were in attendance at the meeting and offered their observations. Joel Freeman stated that one advantage of the trip was that the members
needed to drive closer than seven miles to the wind farms to observe them. In other words, it was difficult to see the wind towers at 7 miles or greater with the weather. Most people who would visit an off-shore wind farm would be limited to the distance from the shoreline unless they traveled out by boat. He also stated that the trip was a reminder that the weather conditions are not always ideal for trying to view things at a distance. At night, Mr. Freeman said that the visibility was not good either and that the Federal Aviation Administration (FAA) navigation lights were also not very well visible at night. Mr. Freeman said that he previously went to the Crescent Ridge wind turbines and found the ones visited last week to be much quieter.

Nate Kipnis stated that the FAA lights were very visible when you were right next to the wind turbines. He said that if you were out on a boat right next to a wind turbine at night, the light would be visible, but he thought they were pretty majestic and getting very close them was a good experience. The 2 MW turbine that was visited was 85 m (280 ft.) tall to the center of the hub, with 45 m (150 ft.) long turbine blades. He noted that the wind turbines could not be clearly seen until approximately 5 miles away and he expects this is due to the hazy weather.

Bill Wagner’s impression was similar. When he was directly underneath the wind turbines he could hear the sound from the rotation of the blades. It sounded somewhat like a wave sound machine that you would put on at night. It was not the best weather but Mr. Wagner said you could compare the visual sight with other structures that were on the horizon and he felt the wind turbines were harder to see. At about 3 miles away, it was noticeable that they were moving.

Tom Cushing wanted to know how the visit to the wind farms impacted their view of the visual impact of them. Dick Lanyon stated that it was pretty difficult to see the wind turbines very well at 7 miles away, especially with all of the other things on the horizon. He speculated that if you looked out on the lake under similar conditions as the day of the trip, that the wind turbines would stand out more.

Ms. Joan Rothenberg was one of the citizens who attended the site visit and she was not able to make the meeting but submitted the following observation for inclusion into the meeting record: She said, “My impression from that Indiana Wind Farm Site Visit is singular. Nothing can be said, honestly, in my opinion, about the visual impact from 7 miles away because we all experienced the fact that we just couldn’t see any turbines from that distance due to the dense fog. Having been on that field trip, I can say unequivocally that it does not give anyone the data to say what the visual impact would be from 7 miles away with the exception of how the turbines couldn’t be seen on a densely foggy day. I think the 1730’ tall Willis Tower couldn’t have been seen if it had been 7 miles away that day.....the fog was just too dense. From the point of visuals, all that field trip told us is that you can’t see anything through dense fog.”

6. NEW BUSINESS

B. Working Group Summary Document

Co-Chair Nicolai Schousboe stated that he wanted to obtain input from the committee on what main comments should be included in the summary document to be provided to the City.
Council. To help facilitate a discussion, he sent the committee four questions for their consideration. They include the following: 1). What is one main point that you believe needs to be in the report? 2). Do you have a cautionary note or warning that you want to share with the City Council? 3). What next steps would you recommend to the City Council? and 4). Are there any main points not addressed in the course of the discussion to date that you want to identify?

He asked that the committee members each take a turn to provide their feedback on the questions above, starting with the first question. A summary of the comments to each of the questions is provided below. It should be noted that these represent opinions of the committee.

**Main points that you believe needs to be in the report**

- No experienced, qualified wind developers were interested enough to respond to the RFI.
- Neither of the two respondents has ever developed, owned or operated a wind generating facility, land-based or off-shore; has ever developed a project of any kind, small or large; included anything that shows it has the financial capacity to complete development of a large-scale project, or is a going concern.
- The information provided from the two RFI respondents was helpful but not authoritative. The information developed by the committee during this process provides substantial value.
- The respondents to the RFI did not reveal any red flags with regards to this project; however the value of their input is limited.
- Despite the responses we received, the City should continue exploring this project in some manner.
- The federal government’s backing of offshore wind means it is likely that the first Lake Michigan wind farm will be built for economic development, knowledge-base, and industry cost-lowering purposes, i.e., at an economic “loss” and with substantial subsidy of the development itself.
- While there are significant barriers and uncertainties to overcome in order for offshore wind to become a reality in Lake Michigan, the wind resource is excellent and the policy environment is beginning to move to address these hurdles. Evanston’s leadership on this issue, and the fact that it is the first Illinois entity to seriously explore the possibility, is very important leverage for Evanston. It is Evanston’s interest, and our elected officials, that are the impetus for the State to address the issue. If Evanston's interest and engagement is not sustained, then it is much less likely to be in a position to control or participate in a Lake Michigan wind project in the future.
- It is important for the Committee’s report to specifically address the primary task of commenting on the RFI responses and then clearly identify separate findings unearthed during its review. We are all seeing the benefits of this technology to produce clean energy, reduce carbon footprint and conserve by preserving the remaining fossil fuel stores.
- While not necessarily part of the report, there were some important questions/concerns voiced by citizens attending the Committee’s meetings and field trip that should be conveyed to the Council for their consideration, so they know what might be asked of them.
- The whole wind farm siting process will be lengthy and that at some point the City will need to come to a decision as to whether to proceed or to abandon the project - at least
temporarily. This process may need the development of a decision tree that would define whether and when the project is either a "go" verses "no go."

- Efforts to increase the use of renewable energy resources should not be at the expense of higher energy costs for Evanston businesses and residents.
- Both respondents emphasized the same point, that an important next step is to determine how much wind is actually out there.
- There are a number of variables at play that need to be resolved for this project to go forward; however it seems like the City should continue to explore the possibility of the project and continue to inform and engage residents.
- The two RFI respondents to not represent typical or even desired developers and there is concern about the ability for these parties to complete this type of project. Their effort is appreciated but we would expect a different outcome if the City were to issue a request for qualifications for developers with which to partner for this project.
- This project could never go forward unless the state does in fact develop the Offshore Wind Committee and establish a process for Lake Michigan to be leased for the use of offshore wind projects.

Cautionary note or warning to share with the City Council

- An RFI should not be confused with an RFQ – Request for Qualifications or RFP – Request for Proposals.
- Failure of Evanston to act on its own does not mean that there will not be a wind farm visible from Evanston, it would just mean that Evanston would have a lot less to say about any such project and little benefit from it.
- Established offshore wind companies did not respond to our RFI not due to technological or cost issues, but due to the lack of an "off-taker" of the wind farm's output.
- The Council should specifically identify the concrete benefits to the City and the Citizens of Evanston. If the Lake is the most appropriate location, benefits need to be part of the outreach effort to gain consensus of the community and our neighbors.
- The Council needs to make sure that whoever is selected to develop this project has the capability and experience to do so and require a detailed “Cost Benefit Analysis”.
- It should be identified how GHG and carbon footprint reduction will be claimed as applied to the Mayor’s Climate Action Agreement and ECAP, since it will be built in the Lake and likely funded, owned and operated by someone other than the City of Evanston.
- Mission creep - The City needs to make certain that it stays within the boundaries of its role in this process - whatever that is decided to be.
- The City should avoid financial expenditures on this low-probability project.
- The law of unintended consequences has not been revealed. There has been a lot of focus on the positive aspects of this project, but not a lot of time has been looking at the potential downsides. We could be opening Pandora’s box with this project with respect to what private developments we allow on Lake Michigan?
- The result of state legislation may be to lessen the influence of municipal initiatives for wind farms in the lake.
- Safety is a concern as well as operations and maintenance. Wind turbines have gained media coverage recently that they are a dangerous place to work for electrical workers.
OSHA is looking at wind turbine worker safety and is in the process of developing safety standards for the industry. Medical and first aid, machine guarding, etc. are items that have to be dealt with for any off-shore wind project.

- Looking at the 30,000 foot level, this project looks like a low probability project. However on the upside, we think there is a great wind resource on the lake and I believe there will be wind developed in the next 10 years. So if Evanston can have our hands on the reigns as one of the leading projects, we could influence how the process happens and impact how it turns out rather than letting other communities lead the way.
- Before any more money is spent, we need to get a handle on the economics of this project. There may be more than one view on this topic but what would real development companies think? Is it realistic to think that companies would want to develop a project like this and what would they say about why they believe it is economical?
- What would the power purchase agreement look like? Is there a real buyer out there for this energy at a price that the seller would be willing to provide it at? City Council needs to look at this in a realistic manner.
- Whether you are for or against the idea of the wind farm process, you should respect the process; or even if there is not a process, respect the fact that it is messy to create a process.
- The issue of private development on Lake Michigan has been around for a long time.
- There is a lot of support for this project but there are also those who are against it or those who just have questions. The City has the responsibility to know enough about the project themselves to educate the public and help people to understand the project. I would caution the City against moving forward with the project at a rate faster than you can educate the public.
- Land based wind projects are more mature than off-shore projects and the cost for off-shore projects will eventually come down. Due to the lack of a formal process with the State of Illinois, the City’s Wind RFI may have been too early for the established wind project developers. It may have been one year early due to the current position we are with the state.
- This is a long term process. Things that seem uneconomical today or dangerous will in fact in 2018 be considered much differently. The prices have come down by 50% for land-based wind projects in the last 7 years, but for some reason the developers are now getting concerned again with initial project costs for the off-shore wind projects.
- When things go bad with a wind turbine, it is much less damaging when it happens off-shore versus on land or relative to other forms of power generation.
- The state may decide to maintain dominance on this issue and this would in-turn reduce the local municipalities’ influence on the process.

**Recommended next steps**

- Meteorological testing would be up to the developer if the project gets to that stage and the state is working on the process of setting up the leasing process for the Lake Bed. So I think a next step would be the public education and outreach efforts.
- This process is long term and I am concerned about the technology. It would be helpful if we can go forward with the paperwork and permitting and then determine the exact technology once we get closer.
Meteorological testing, creation of a state leasing and permitting process, and communication education and polling seem to be the most logical next steps. Meteorological testing is very key for the developer to understand the potential revenue model with will then in-turn help fund the project.

Evanston should seriously explore its ability to create a market for the wind farm's output by looking at models to aggregate customers within Evanston and other local governments and institutions in our region.

Compare all line item aspects with other successfully built projects, learn from their mistakes and benefit from their correct choices. We need to get some hard facts and information that can be used to inform decisions.

Develop a matrix of logistical, permitting, approval and testing requirements to understand going forward, the true time line for the project.

Flesh out which federal and state regulatory agencies would likely be involved in the process (e.g. Army Corps - Chicago District; IDNR, U.S. Fish & Wildlife Service, FAA, etc.) and identify contacts. Consider inviting these contacts to a meeting to discuss their respective roles and regulatory requirements.

The City should apply its resources to projects with greater probability of near and midterm (1-15 year) progress.

Given the City's tight budget and fiscal position necessary next steps can be undertaken only if affordable. The City should seek grants for these necessary next steps to enhance affordability.

Logical next step is to get a data base of the wind resource that is available on Lake Michigan. This might cost money and is something that the City will not want to pay for but would be helpful. Perhaps we can get grant money.

It would also be helpful to bring in reputable developers who could come into the City and talk with us about the project in more detail and have some candid conversations. It would be helpful to have both developers who are and are NOT in favor of this project.

Next steps should be testing. Most of the wind resource studies being funded now are being done with DOE money and this is something the City of Evanston should look into along with collaboration with Northwestern University.

The City should seriously consider what their role would be in the development of an offshore wind project. A more thorough cost analysis should also be completed to better understand how the parties would work together to make the project happen.

Recommend that the City work with partners and the community to help educate everyone on the project. Many residents are already having a hard time paying bills so keeping this in mind is important.

Need to find out if there is good wind out there. Also, we need to understand the overall process and the critical path. What is the most important thing that needs to be done now that will make or not make it possible to complete the project if we wanted to. One developer
has shown information on the critical process throughout the 7-year process, but this needs to be explored more.

- While we like to say that the developer should be solely responsible for determining the wind potential, perhaps there is some initial, upfront work that we should do to help support the project.

- We should be going after grant money to help fund the next activities and also partnering with Northwestern University to use this as an opportunity to conduct research that also benefits NU students. We should not put this financial burden on the backs of the local community.

- Next steps should include outlining what a true RFQ/RFP would look like, formation of or delegation to, a committee, commission or board to investigate and possibly recommend a role for Evanston about possible options; beginning avian studies now (some advocates want three years’ study); application for Illinois Clean Energy Community Foundation grant for meteorological, avian, and/or feasibility study (applications will be available June 15 and July 14th)

Any main points not addressed in the course of the discussion to date

- Evanston may want to think of building a partnership of entities beyond our borders. There is great potential for collaborate with neighboring towns as well as the University. The shore off of Evanston will not only be seen from Evanston but from surrounding communities as well.

- Some sort of poll of the residents to support this project after presentation of the project’s details would be very valuable.

- Our community is supportive of sustainable efforts and resources, but maintaining a spirit of diversity and not just putting all our efforts into the wind farm. Also, incorporating people across the community will be important in the future, especially the youth and the next generation. We will need to do more than just the wind farm.

- Our discussions have been fairly comprehensive, have covered and uncovered in some cases, potential flaws with an off shore wind farm. Our representative in Springfield has made incredible progress on a potentially major sticking point. While a large number of issues have been raised, the answers will likely reveal others.

- There are a lot of other positive things related to sustainability and outreach and education going on across the City and we are always thinking of ways to get that message out to people.

- Exelon / ComEd potential involvement?? Exelon purchased Deere Wind Energy last August to obtain expertise in developing wind farms and to add clean energy to its portfolio.

- The City should consider purchase of energy from land-based wind farms as an alternative to a wind farm in the lake.

- There is strong general public support of wind power.
• Current low retail wholesale cost is function of excess capacity from, largely, coal and nuclear facilities, two sectors under pressure for different reasons.

• Effect of a rapid and permanent increase in oil costs on electric demand.

• Possibility of partnership with other municipalities should be further discussed and explored (ie. Waukegan).

• There has been a lot of on-going discussion on the cost of off-shore wind development. 25,000 MW in our region’s energy grid; our small 2000 MW will not pull up the cost of the entire cost of energy in the region. Energy produced from an off-shore wind farm would have its own specific attributes and value to the grid.

The group discussed the options of how to create the committee's final report. It was agreed that the chairs of the working group would meet to develop a draft. The draft final report would be sent to the entire committee for their review and would be discussed in detail at a final meeting in early June. The report to be included in the packet for City Council's consideration must be done by June 8th.

7. PUBLIC COMMENT

Steve Lavone—Mr. Lavone said that he considered this is a landmark decision. An array of wind turbines out in the lake would be a good addition to our other lakefront assets, such as the Grosse Point Lighthouse. The project would also provide clean energy. We may not see the direct negative aspects of our current energy infrastructure, but 12 miles south of Chicago the negative affects can be seen.

Barbara Sykes – Ms. Sykes said given the sheer magnitude and far reaching effects of this venture, the review and decision making process must be transparent, inclusive, democratic and that resident’s right to vote on the outcome of this proposed project should not be circumvented. She did not feel the process has been transparent, information has not been released in a timely manner or been inclusive of resident’s participation. Her concerns include the City Staff’s initially review and approval for further investigation of the RFIs in 2010, that the RFIs should have immediately dismissed because they were submitted by two inexperienced fledging, startup companies without any prior experience in the construction of a wind farm. In the Mayor’s Wind Farm Committee, this fact was determined, to varying degrees, in the body of the working group reports. But none of the working group summaries mentions it. All of the working group summaries should include that the RFIs were submitted by fledging, startup companies. She commented that the wind industry is unregulated and that full disclosure has been an issue. She stated that last year, Reuters, and numerous other European media, reported that all existing offshore wind farms have a multi-million dollar design flaw and are sliding off their bases and that the industry still hasn’t come up with a solution. The US government is working with wind industry leaders (NREL), in part, to address serious, extremely costly and time consuming to repair outstanding design flaws. Since the beginning, the wind industry continues to be plagued by multi-million dollar gearbox design flaws, extremely time intensive to replace and repair. NREL report includes the industry’s claimed wind turbines 20 year life span is false;
gearboxes alone require replacement every 3 to 5 years cutting done the life span considerable and escalating the costs exponentially. She also spoke to the need that comprehensive energy policies, regulations and protections must be in place first before proceeding and every detail must be carefully scrutinized.

Ms. Sykes wanted to know why there was not a working group looking at the environmental impacts; including one addressing fresh water lakes. She stated that until late last year, there were no existing wind farms in fresh water and consequently no existing data on the impacts of wind turbines in fresh water lakes. Now, only one small one now exists in Sweden. Earlier this year, Ontario, a world leader in renewable energy, including wind energy, put a moratorium on all offshore wind turbine projects until the science of environmental impact is clear. She stated that independent scientific must be done on the impact of wind farms in fresh water lakes that are comprehensive, objective, independent, transparent, and based on empirical evidence. Ms. Sykes questioned who is responsible for the bills if anything goes wrong. Ms. Sykes spoke against the privatization of a public property; constructing a large, privately owned industrial facility in Lake Michigan, a public property and in the world’s largest fresh water lake, the Great Lakes. She was concerned about the potential for public domain issues and condemning privately owned property for the installation of new electric lines in Evanston. She is in favor of renewable energy, including wind energy but only if it is appropriately placed, but she is not for any wind turbines in any fresh water lakes. She recommends proceeding with caution and close scrutiny. She also wanted to know when there will be opportunity for residents to be part of the decision making process.

Andrew McGonigle – Mr. McGonigle commented that he has several questions including the following: What does the Evanston community get out of this process? Where do we go from here? What are the long term advantages and what do we get? If money is expended by the City, how is that money recouped? How can the taxpayers be repaid for the resources spent? Another area that Mr. McGonigle commented on is the point where the power lines from the wind turbines would come on shore. There is another project considering an island marina. How would this project interact or interfere with the other? It seems that there are several issues outside of the committee’s purview that need to be addressed before a recommendation could be made. Mr. McGonigle also expressed concern over the City’s ability to manage and/or regulate the process and the cost that would be entailed to hire a developer to do it for the city. He agreed with previous statements from the committee that a wind resources study is needed and that partners and grants would help meet this need. Mr. McGonigle expressed interest in seeing a copy of the report from the committee with enough time to read it prior to the City Council Meeting. Is it beneficial for the City to consider buying the wind energy from this project?

Jeanne Lindwall – Ms. Lindwall commented that she wants to understand how the power gets from the wind farm to the grid. At a previous meeting there was discussion of a power transmission line that would need to connect to Skokie and would likely be built as an underground transmission line. Is it possible and/or cheaper to put the lines overhead? Do we
(Evanston) have a say as to whether the transmission line would get built if the community decides we do not want it going through our town?

8. ADJOURNMENT
The meeting was adjourned at 8:23 pm.