

**MINUTES OF THE
COMMITTEE OF THE WHOLE MEETING
VILLAGE OF NORTHFIELD
TUESDAY, JUNE 19, 2018**

The Committee of the Whole meeting was called to order by Village President Joan Frazier on Tuesday, June 19, 2018 at 5:30 p.m. Village Clerk Stacy Sigman called the roll as follows:

Committee Members Present:

Trustee Tom Roszak
Trustee Allan Kaplan
Trustee Greg Lungmus
Trustee John Goodwin
Trustee John Gregorio (arrived at 5:45)
Trustee Thomas Terrill

Absent:

Others Present:

Village Attorney Everette M. Hill, Jr., Village Manager Stacy Sigman, Director of Community Development Steve Gutierrez, Finance Director Steve Noble and Assistant to the Village Manager Melissa DeFeo

Approval of the April 17, 2018 Report of Proceedings

Trustee Lungmus made a motion, seconded by Trustee Goodwin to approve the April 17, 2018 Report of Proceedings.

Discussion on Josselyn Center using the Maple Street Right of Way

Susan Resko, President of the Josselyn Center was present. President Frazier indicated that she is asking for the Josselyn Center to use the Maple Street right of way for greening up the Village. Ms. Resko said that they purchased the site about six months ago to move their administrative and development staff into that location which will allow for clinical space in the main building. They have a couple of horticultural therapists on staff that would like to incorporate gardening into the therapeutic process. They have received a donation from Garden Design Consultants to design a therapeutic garden that has a lot of different beds for vegetables and flowers. The therapists will take the clients out either individually or in small groups. She said it will add a lot of aesthetic value to Maple Street. As people are coming out of Starbucks' alley, they will see a nice sign that talks about the work beds. Josselyn Center has been in Northfield for 50 years and they are excited about this project.

Village Manager Stacy Sigman pointed out that the sign would be a separate approval and would require Architectural Commission approval. President Frazier indicated she is in favor of green landscaping, but her concern is for the safety of the people. Ms. Resko said it would mostly be one on one or a therapist and maybe four clients. It is designed so that there is grass out on the parkway so they wouldn't be gardening right

against the road. It is an outpatient mental health center and they are the first point of entry into the mental health system so they have clients that are going through divorce, grieving or more long term but are living in their own home. They do not do any partial hospitalization or half day programs.

President Frazier questioned whether they would maintain the bed. Ms. Resko indicated yes they would keep it maintained and there are two garden clubs who are willing to contribute and come over. They would also water it.

The trustees felt it was a wonderful idea.

President Frazier indicated there would be a hold harmless agreement that would need to be done. She said it sounds like a wonderful thing. VM Sigman said since there is consensus, the next step would be staff to work with the Village Attorney to develop a license agreement that would be brought back to the Village Board for formal consideration. We could bring that back in July. The Board also requested staff to work on a more general policy for license agreements and have a draft of this ready at the same time.

Discussion on Green Initiatives – Mark Pruitt and Go Green Northfield

Bill Hayes was present and has been a resident since 2005 and will discuss green initiatives. He said one of the topics for the Go Green group is climate change initiative and renewable energy. They provided lists of various initiatives to be focused on for 2018. He said he has two messages; one is for the Village and the community to take steps and think about further steps to reduce the carbon footprint of the Village in order to reduce the impact on climate change, and to do it in a way that is credible and measurable and is significant so it is impactful. The second message is that it be done in the lowest cost way. His background for many years has been in finance, economics and business, but the last four years he has been into climate change and renewable energy. He suggests what municipalities and organizations can do to reduce your carbon footprint and it can be done very cheaply.

Mr. Hayes then discussed the Greenest Region Compact 2 slide. There are 10 major categories. He will focus in on climate, energy and municipal operations for leadership for both the community and beyond Northfield. He suggests that the Village be 100% powered by renewal energy for its municipal operations in 2018. This is an important step in the longer term effort to reduce carbon emissions community-wide. That would avoid about 1,000 tons of Co2 emissions. He also suggests partnering with organizations to make events zero waste so the total cost would be less incremental which could be funded by efficiency initiatives. He is talking about the consumption of renewable energy is what reduces your carbon footprint, not the production of renewal energy. They are two distinct things. He said it is hard to talk about reducing carbon emissions and adopting renewable energy without acknowledging climate change. The climate is warming, one degree so far, another degree is unavoidable. Human influence is the main cause, mostly by burning fossil fuels. The amount of Co2 in the atmosphere has gone from 260 million parts to 400. It's up 50% in the last century. Carbon dioxide

traps heat. There is scientific consensus on those two points. There are net costs and risks with this so it's worth doing something to reduce carbon emissions. There are things like rising sea levels under 4 feet in the next 80 years according to the estimates, flooding storms that go hand in hand with higher temperatures and the changes in weather patterns. These are very long term global issues. He said it is not so expensive to go 100% carbon neutral for electricity and other things. There is an incremental cost but it is a lot less than it used to be. His last point is that there needs to be a global commitment. No individual has the incentive to pay for climate change to mitigate it. It takes a global commitment.

Mr. Hayes then showed a slide that Sunset Ridge School put a camera on a balloon up 20 miles and took a picture of the atmosphere as a school project. Those kids are going to be effected by the climate change. Trustee Gregorio said he was at this experiment and he said the kids put an egg in the carriage and designed an apparatus and it came down from the stratosphere and the egg was not broken.

Mr. Hayes said a lot of what is being done is because of the Paris Agreement in 2015. The main point was to limit the increase in temperatures to two degrees and that requires an 80% decrease in carbon emission by 2050. 200 countries agreed to the Paris Agreement and all the other countries committed to continue on. To cut 80% means to take coal and natural gas out of electricity and decrease gasoline in cars. China has a cap on electricity carbon emissions and EU has restrictions on gasoline cars. At the city level, there are 7,500 mayors that have joined a Global Covenant of Mayors. They are committing their cities to follow the Paris Agreement. Illinois is not one of them. There are also companies, half of the biggest emitters committing to reduce emissions in line with the Paris Agreement. There are investors and \$22 - \$25 trillion in investors moving in this direction. Mr. Hayes believes the most efficient way to deal with this is a federal or global policy that would provide incentives.

What municipalities are doing to decrease carbon emissions was then discussed by Mr. Hayes. 406 US Mayors joined the Climate Mayors to follow the Paris Agreement which are 80% of the largest cities, 14 in Illinois. The Climate Mayors have some sort of physical support of the Paris Agreement and have a community-wide plan to reduce emissions. There are three parts to that plan which are to measure emissions, set reduction targets and set up a climate action plans. Measuring emissions includes the gasoline in cars, there is the coal and natural gas in electricity and there are all the other imbedded fossil fuels in everything you purchase.

President Frazier asked how emissions would be measured. Mr. Hayes then showed a slide which is his attempt at estimating Northfield's carbon footprint. He separated municipal operations from the community's use. His main point is that roughly 160,000 tons per year of Co2 is emitted from cars, electricity and other sources. Mr. Hayes said that most cities that have action plans and have efficiency at reducing consumption by being more efficient and focus on electricity reduction. Electricity is easily measurable. Mr. Hayes then had the Board listen to the EPA's discussion on Renewal Energy Certificates (REC's).

Trustee Gregorio asked in the US, how much electricity do we use percentage wise of coal versus renewable. Mr. Hayes said it is about 2/3rds fossil fuels and about half of that, about 35% is coal and renewable energy is about 35% and the remainder is nuclear. Renewables in total is 16%, including hydro. President Frazier indicated that if we buy RECs, we are basically supporting someone else who provides renewable energy. She asked how much they are. He said renewable generators generate two things of value. One thing is electricity to run the refrigerator and the second is green value of displacing coal in a carbon footprint. If the owner of the REC is the person that owns the reduction in the carbon footprint. There is a whole market for buying REC's. Buying REC's is demand for renewable energy. Supply of RECs is the supply of renewable energy. President Frazier then asked who does the bookkeeping. The wholesale price of the RECs is a fraction of what they are selling it at for retail. Mr. Hayes said he set up a company, Cleanpath Partners, and registered with the grid that manages electricity and REC's and during that process, he learned about how they are tracked and does he trust how they are tracked. Each grid manages its own RECs.

Trustee Terrill said they are getting calls from 5 or 6 different sources to pay electricity and that each resident can buy separately. He asked if this is what Mr. Hayes is asking the Village to do. Mr. Hayes said you can basically buy the RECs in three different ways. Trustee Terrill asked if he read the article in the Journal today. Mr. Hayes did not. Trustee Terrill said a large company, Florida Power and Light, is selling the certificates for electricity burning coal so they can look good on the certificates. Mr. Hayes said if you're buying RECs, you are adding demand to renewal energy which pulls in wind into the system. Shareholders that say they need to reduce their carbon footprint. And different stakeholders saying they want them to reduce their impact on the environment. Buying RECs is the least costly to provide that positive change. The more RECs are purchased the more wind that enters the system, the more coal the leaves. The EPIS estimates .7 pounds of Co2 is removed from the atmosphere. Trustee Terrill said he is not sure he agrees with being able to dirty the atmosphere but then buy a certified that says you're not.

President Frazier introduced Mark Pruitt. VM Sigman added that a number of years ago, the Village went to electric aggregation and Mark Pruitt helped 65 municipalities to help with the electric aggregation process. He educates municipalities on energy and ways that they can provide efficient and low cost energy to their consumers and advises on green initiatives. He can suggest other options and way to become greener.

Mr. Hayes then discussed the agencies that support RECs. The trustees then asked Mr. Hayes certain questions and a discussion continued on RECs. President Frazier asked what the average cost is. Mr. Hayes said \$950 and that's for 1,500 megawatts and is based on the price that he bought them at in the wholesale market, 63 cents per REC. President Frazier then asked how much reduction in carbon footprint would we be supporting by buying \$950 worth of RECs. Mr. Hayes said that would be buying enough RECs to cover all of the electricity consumption of the Village for one year. You would be buying clean energy which would be replacing coal.

Mark Pruitt said his presentation focuses largely on electricity supply options and doesn't touch very much on efficiency. He has been working with neighboring municipalities on trying to maximize the value of the energy efficiency dollars available through ComEd and NICOR. He said clean energy options are renewable energy generations, which is the generation of electricity from a renewable energy asset which is separate from renewable energy credits which are the environmental attributes associated with electricity renewable energy credit, separate from community solar. The conduits are like the contracting mechanisms that a municipal or its residents can use to access those types of clean energy options. He said he is a former utility regulator in this state and probably transacted on about 80 million RECs over the past several years and he works at Argonne Labs working on regional grid planning and he advises municipalities and corporations. He works on both, the buy and sell sides. His job is to find out what a client wants and then go into the marketplace to find it. He also is a board member of the Midwestern Renewable Energy Association.

Mr. Pruitt then said when you talk about renewables, it is helpful to think about energy as a spectrum. He directed the Board to the slide where the least beneficial is coal, nuclear, natural gas and oil power. About 10 to 20 years ago, people started talking about renewable energy which was large hydroelectric and municipal solid waste. Over the past 10 years, we have found there is renewable and then there is green. People differ as to what is renewable and not. When you talk about renewable, you are talking about different sources, different vintage and different locations which leads to different prices. The price is what you want to pay for. There are many different flavors. The process that a community needs to go through if you are saying renewable, are you saying green and what does that mean. Some communities want additionality which are purchases that bring new resources onto the scene as opposed from buying from existing resources. Green power is wind, solar, biomass, geothermal, biogas and low-impact hydropower.

Trustee Roszak questioned why nuclear power isn't green. Mr. Pruitt said the people who own nuclear power plants believe that it is. Renewable, by definition, seeks to have some type of driving force that is self-replenished in nature, whereas the nuclear power plant is a nuclear operator with artificial fuel and then there is the issue of the waste drain. Trustee Kaplan questioned natural gas. Mr. Pruitt said it is not as bad as coal, but seems to take on religious tones. A lot of them are a question of degree and some people view that oil and coal release the most Co₂ when they are combusted are the worst. Less worse would be natural gas and less worse than that would be nuclear or uranium driven and less worse than that would be large scale hydro or municipal solid waste. It is a question of degree – how dirty is it. According to ComEd, their most recent fuel mix report for 2017 had zero percent biomass, 33% coal, 1% hydro, 26% natural gas, 36% nuclear, 0% oil, 0% solar, 3% wind and 1% other. The municipality, when putting a plan together, gets to define what they mean. One municipality he is working with initially said they wanted to work with green power, but when the numbers were run, they found that efficiency had a bigger bang for the buck based on how they defined the issue. They said for every dollar spent, what is the amount of clean electricity introduced to the system or electricity used prevention that comes off the system. For them, that meant no industry lights and promoting energy efficiency at

municipal facilities and helping their residents get better and quicker and more preferred access to the efficiency programs with ComEd and NICOR.

President Frazier asked who decides whether the energy a particular company is producing is eligible for RECs certificates. Mr. Pruitt responded that RECs are a product that anyone can buy. There are websites where you can buy it. It is a receipt. President Frazier questioned whether the money goes back to a company. Mr. Pruitt indicated sometimes, it depends on the renewable energy credit. His experience has been that if he were to go out today and buy some renewable credits, he will end up buying them from resources that are already built because they are the only ones that have RECs to sell. As long as the company has possession of the renewable energy credits, they are qualified to sell. There are brokers that have licenses. RECs were created originally and accounted by the regional power systems; it is a receipt system. If electricity is delivered into the grid, it is measured and at that point of measurement is where a real energy credit is created. Renewal energy credits generally change hands 3 or 4 times before they get to a consumer. Many times the REC will be created and handed to the generator and then the generator will then sell it to a broker or to a banker and then through various transactions will make a way towards a consumer, each taking a cut or a markup along the way. You can get a renewal energy credit, probably a wind credit from the Texas wholesale market for less than a dollar. If you wanted to get RECs from a retail electric supplier, someone cold calling, saying they have green power product, the net cost of that REC will be more like \$10 or \$15.

President Frazier then asked Mr. Pruitt to explain the pros and cons of the REC system from the standpoint of municipalities. Mr. Pruitt then showed a slide showing conduits versus sustainability options. Municipalities, individuals or municipal aggregation can take action on an opt in or opt out basis. The conduits can provide individual renewable energy projects at residents' home. They can facilitate a purchased renewable credit or they can help participation in the community solar. He said these are the three most viable renewable energy options that are available today. When it comes to individual action, residents can do anything. They can put solar panels on their roof, they can go online and buy renewable energy credits or they can sign up to subscribe to a community solar project. If a municipality wanted to get involved and try to participate and push, they could put together an opt-in program for the purchase of renewable energy credits, which is something that is allowed under the statute, municipal aggregation is where the residents have granted the municipality to right, via referendum, to purchase energy supply and services on behalf of the residents and to serve as a broker. So long as the resident can opt-out of the program at any time. If the municipality wanted, they could purchase RECs. But, buying 930,000 RECs on the market today isn't going to get anything new built – it won't have additionality, but it would be a way to qualify to get a plaque from the US EPA to say you are a green community partner. The same thing could be done on the opt-out program, it is a question of the residents signing up individually or do it on behalf of everyone unless they opt themselves out. It is the same issue in terms of what the Village as a corporate entity can do on its own. It can purchase RECs, but it won't lead to any additionality. It is relatively inexpensive and easy.

Trustee Lungmus said the kilowatt hours sponge-able in the system, the RECs are the way to identify the source of this as being green. He said he went to a green provider when he changed from ComEd. The RECs are built in to the price that he sees on his bill. They might be burning coal, but they are buying RECs to represent themselves as being green. He asked if this is possible. Mr. Pruitt said there is a term called green washing. This is where an entity continues to generate electricity in the same way it always has and then they absolve themselves of that pollution by buying credits. It's like absolution. You are only buying RECs from assets that already exist. If you want to increase demand through RECs, you will have to commit to buying those RECs at a price that will support new development for a period of time that will meet financial obligations. This is what is seen now in the Future Energy Jobs Act where the price for RECs for say community solar, are set at about \$80 per a megawatt hour and for a commitment over 15 years. If you are willing to pay \$80 per REC for 15 years, that is probably the price point necessary to build solar. Wind is much less, probably in the \$15 range with a 10-15 year commitment. Mr. Pruitt then said the point he wants to make is that you can use RECs to generate additionality, but it is not done on a year to year contract. To get additionality, you need to make a longer term commitment at a price that will generate revenue for the developer to secure financing for the resource.

Assistant to the Village Manager Melissa DeFeo then asked Mr. Pruitt to explain their conversation on the Future Energy Jobs Act. Mr. Pruitt said the Act passed in 2016 which was a deal between Exelon, the utilities and the renewable energy advocates of the state. Exelon got a 10 year subsidy at about \$2.5 billion to continue the operation of the Clinton and Quad Cities power plants. The utilities got a lift of the rate caps on the energy efficiency programs and a return on investment on those programs for about 9-1/2%. The renewable energy advocates and consumer advocates got an inclusion of community solar, a change in focus from regional REC purchases to in state REC purchases from new resources. That deal was done and it has taken about a year and a half get the process moving. It is working now and provides more options. There are more dollars going toward energy efficiency, more dollars toward community solar and there is a lot of new spending going on. They are putting incentives for renewable energy and energy efficiency. To partake in this, the municipality needs to determine what incentives are of interest to the municipality. If its energy efficiency for LED lights, grab that, or if it's free residents green credit, facilitate a program and run that. On the renewable energy side, there are about 700 megawatts of new solar in northern Illinois being proposed. You could subscribe or buy the energy, not the RECs, from those resources, probably at market value. If the municipality buys from a local energy resource, it would not be a green energy resource because the RECs are being sold, but you would be getting the value of the energy. If the municipality wanted to buy a lot, you can purchase from one of the utility scale wind or solar products that are being built by the state using these incentives, but that is not recommended.

AVM DeFeo then asked Mr. Pruitt to discuss creating a consortium of different municipalities to directly support a solar grid but at a higher cost. Mr. Pruitt said the higher cost is being paid for by all the repairs to the utility to purchase the RECs at \$80 leaving a residual value of three cents a kilowatt hour as the cost for the electricity coming off of those plants. The opportunity that was presented to the municipality is

would you like to buy some three cent power for 15 or 20 years. It is a long term commitment, but the price is pretty good. He indicated that might be an opportunity for the municipality. But it goes back to, what are you going to define as being green? Is it buying the energy from one or more solar farms in the state, or is it buying renewable energy credits from some resource somewhere of some type. He doesn't know if one is better than the other, but they are options that didn't exist before.

President Frazier asked when the RECs program begin. Mr. Pruitt indicated in Illinois, renewable energy credits became a state-wide policy issue in 2007 with the passage of the Illinois Power Agency Act which has the language that ratified and set the state's renewable portfolio standard. That is the program that he managed before.

Trustee Gregorio asked if there is a tax consequence by purchasing the credits. Mr. Pruitt said it is just largely helping the system. There are significant tax credits that go to support the development of renewable energy resources, mainly the investment tax credit which pays about 30% of capital costs for the project in year one of the operation. There is accelerated appreciation; at the state level there is the purchase of renewable energy credits. On the solar side, there are grants from the utilities for those projects that install smart inverters. He has seen municipalities in groups go through the process of establishing what is important to them, but every community comes up with a different priority. These words mean things, products and services that can help you meet your goals vary from region to region and year to year, so eventually it becomes a procurement issue which is what he does for a living. He sees a lot of unattainable goals being set and sometimes they are too conservative that leave some money on the table. His hope is to level set some of the expectations and thinks that there are opportunities, but it is up to the governing board and the residents to determine what the priority order, why are we doing it and what is the measure of success. If you get 2 or 3 years into a program and it's hard to report out what the metrics are, that's when the program starts to fail.

Trustee Roszak commented that it sounds like Mr. Pruitt and Mr. Hayes are at opposite sides of the approach. He asked what other municipalities are doing to traverse through all this information to come up with a plan. Mr. Hayes said one of the things that is driving the difference in what is being talked about is, he things the priority of the town should be to reduce the carbon footprint at the lowest cost. That means owning RECs. The people who are measuring their carbon footprint and have an action plan, which he has a list of 406. They are measuring it carefully and doing inventory and many of them are buying RECs. He has a list of the 20 top buyers of RECs. Highland Park bought RECs to cover their municipal consumption. President Frazier asked how many RECs Highland Park bought. Mr. Hayes did not know.

Trustee Roszak felt that \$1000 in energy seems super cheap. He said we probably spend more on rubbers bands and paperclips. Mr. Hayes said in some areas, wind is so competitive with coal that the extra rent payment necessary to incentivize new wind production is almost zero. President Frazier agreed with Trustee Roszak that the more you know, the more complicated it gets.

Trustee Goodwin said he previously spoke to Mr. Hayes. He said Mark knows what is happening today, what's available and how it works. We don't want to get 3 years down the road and wonder what exactly we set out to do. He likes that we are trying to be a green neighborhood with our school and our students because the more the kids can adapt into this line of thinking is important. He's not sure how to get there.

Trustee Lungmus found the meeting very interesting. He agrees with Bill to reducing our carbon footprint. We are going all LED next month, so the demand is down. He would be interested to put the numbers with what the Village needs.

Trustee Terrill feels the outcome is yet to be determined. He thinks we should do some comparisons with the neighbors who may be a step ahead of us. He does not like supporting dirty producers of electricity by giving them certificates of cleanliness. He would rather they clean up their own act. His family has been in the business of making electricity in Illinois for over 120 years.

Trustee Gregorio indicated he agrees with what has been said and that we all have a responsibility to reduce our consumption. He believes the Village should do something, but he doesn't know exactly what it is yet. He is interested in learning more.

Trustee Kaplan said that methane creates a lot more Co2 than what we are talking about here and the \$1,000 we are thinking about spending is less than 1% of what Northfield is using. He agrees with Tom about using less power and go with LED and things like that but he thinks that if you are trying to bring Co2 down, natural gas and nuclear are fine ways to do that. He believes RECs are immaterial, but he is all for using less power.

President Frazier said she is in favor of go green and will be interested in hearing what other municipalities are doing and to find out how this has worked out for them. She would rather start on the other end of the spectrum on some of the other things starting with community education. We could put something in the Village newsletters. Creating a recognition project to recognize local companies and organizations that are reducing their carbon footprint. Making a directory for hard to recycle objects. She thinks moving forward with things that we can put our arms around more easily than deciding whether or not to be in a REC program is the right way to start. She needs to know more. She totally supports Go Green, but thinks it's wiser to start small. We are a municipality where you have to look at every nickel and dime. Every year is more difficult living here in the state where funds are continually cut. Before we represent to the community that we are going to decide on their behalf, we need history.

VM Sigman asked Mr. Pruitt if he could sit down with AVM DeFeo and herself and show them what other municipalities are doing. Mr. Pruitt said Edith of the Metropolitan Mayor's Caucus has the sustainability program and has a database called the Greenest Regional Compact II which is an inventory of all the sustainability measures that have been taken by municipalities within the Metropolitan Mayor's Caucus. It's a sample size of 200 municipalities and hits on not only energy but all other things. He would be happy to reach out to her.

Other Business

President Frazier indicated that next month the Board will decide on the goals and objectives for next year. This is something we actually follow. Stacy disseminates it to staff and then comes to us. She asked the Board to think about that and what they would like to work on next year.

Sheila Mickus, President and Treasurer of the Courts of Regent Wood EPA. They discovered that they have been overly billed over at least the past 20 years on the water. They are being billed for water and sewer and they don't use the sewers at all. There is a separate meter for the water that is used for irrigation. Runoff goes into their ponds and nothing goes into the sewers. This year they increased landscaping and the water bill just for irrigation was \$12,555.00. \$2,000 something was for sewer that they do not use the sewer. The Village Code says that if you have water service only, you should only be charged for water service. She was told that is what they do for customers that use water that has septic tanks. She said they are the same as customers that use septic tanks. She was told nothing could be done now, but wants the Board to be aware of this serious problem.

Adjournment

There being no further discussion or issues to come before the Board, Trustee Lungmus made a motion, seconded by Trustee Goodwin to adjourn the meeting.

The meeting adjourned at 6:59 p.m.