AGENDA
GREENHOUSE GAS WORKING GROUP
January 12, 2022
3:00 P.M.
Remote Meeting via Zoom

Please click the link below to join the webinar:

https://deerfieldil.zoom.us/j/83403231653?pwd=aU9WOWJ2R2JXeUpqeEx2OERmQW92Zz09

Passcode: hq=yPj.3

Or Telephone:
US: (312) 626-6799
Webinar ID: 834 0323 1653

Passcode: 88147315

1. Call to Order
2. Roll Call
3. Consideration and Approval of the December 15, 2021 Meeting Minutes
4. Public Comment

Village residents wishing to respectfully share thoughts about any matter concerning the Village may do so by submitting an email to ghgcomment@deerfield.il.us prior to the meeting. Emails received will be read aloud during Public Comment. Any e-mails received during the meeting will be read during the second public comment before the end of the meeting. We ask that you keep your emailed response to under 200 words to allow time for others to be heard and for the Commission to progress through the public meeting agenda. In addition, members of the public may provide oral comments by telephone or web-based video conference during all meetings of the Commission during the time designated for public comment provided that such comments do not exceed three minutes in duration. The Commission typically does not immediately respond to public comments or engage in open dialogue, but we are of course actively listening to your comments.

At least one representative from the Commission will be present at Village Hall and the virtual meeting will be simulcast at Village Hall for members of the public who do not wish to view the virtual meeting from another location. The opportunity to view the virtual meeting at Village Hall is available on a "first come, first-served" basis due to limited capacity.

5. Discussion of Possible Policies, Programs and Resources
    - Focus Area: Energy
        i. Renewable Energy Credits
        ii. GRC2 and Other Energy Initiatives

6. Other Items for Discussion

- Update:
    i. 2021 IECC
    ii. Landscape Regulation Working Group
    iii. ICLEI Membership

7. Public Comment

8. January Meeting Dates – WED January 26 @ 3PM

Greenhouse Gas Reduction Ad Hoc Working Group
Meeting Minutes
December 15, 2021

A meeting of the Greenhouse Gas Reduction Ad Hoc Working Group was held on Wednesday, December 15, 2021 at 3:00 pm via Zoom. Chairperson Mary Oppenheim called the meeting to order at 3:00 pm.

Present:
Trustee Mary Oppenheim, Chairperson
Don Anderson, Sustainability Commission
Camilla Dadey, Go Green Deerfield
Victoria Street, Executive Director, DBR Chamber of Commerce
Art Wilde, Go Green Deerfield

Also Present:
Andrew Lichterman, Assistant Village Manager/Dir. of Community Development
Dan Nakahara, Village Planner
Robert Phillips, Director of Public Works and Engineering

Absent:
Elaine Jacoby, Village Trustee
Bill Mertes, Sustainability Commission

Consideration and Approval of the December 1, 2021 Meeting Minutes
Commissioner Wilde made a motion to approve the meeting minutes of December 1, 2021. The motion was seconded by Commissioner Wilde. The minutes were approved unanimously by a roll call vote.

Public Comment
There was no Public Comment.

Business

1. Discussion of Possible Policies, Programs and Resources - Focus Area: Energy
Chairperson Oppenheim recalled that the group is focusing on our energy footprint in the Village and ways to achieve the goal of 45% reduction in our greenhouse gas emissions by 2030 and carbon neutral by 2050. Chairperson Oppenheim reminded everyone that at the last meeting we discussed the 2021 International Energy Conservation Code (IECC) and the possibility of adopting it prior to a state mandate. Mr. Lichterman noted staff is supportive of adopting the code and recommended moving forward. Ch. Oppenheim noted the Code should improve energy efficiency by 9.4% and reduce greenhouse gases emissions by 8.7%.

Commissioner Dadey made a motion that staff recommend the Village Board adopt the 2021 IECC. Commissioner Wilde seconded the motion. The motion was approved by the following roll call vote:

Ayes: Dadey, Street, Wilde (3)
Nays: None
Abstain: Anderson (1)

The motion was approved by a majority vote. Chairperson Oppenheim expressed that she is strongly in favor of recommending the Village Board adopt the 2021 IECC.

Ch. Oppenheim noted that at the last meeting the group discussed how residential customers account for 29% of the energy usage and most the energy is used by small and large businesses. Mr. Lichterman confirmed that 1% of the energy is used by municipal or what ComEd classifies as US Small Government.

Ch. Oppenheim recalled that our last meeting the group also discussed the concept of renewable energy credits (RECs) and tying that to an electric utility tax increase to achieve enough revenue to offset 100% of electricity usage. She noted that $60,000 already comes from the electric aggregation program but the rest needs to be paid for somehow. She asked Mr. Lichterman to summarize some of the materials concerning RECs.

Mr. Lichterman reported that the Village would need about $350,000 annually to purchase enough RECs to offset energy consumption from all sectors. The REC market constantly changes with supply and demand so prices vary overtime. The tax was enacted in 2010 and has a tiered down structure where the more electricity used the less you pay per kWh. The Village receives about $1.1 million annually from the electric utility tax. Mr. Lichterman showed a new rate schedule based on a weighted average where ever sector would increase in proportion the energy they use. It is staff's proposal to achieving the most equitable increases. REC purchases would change each year as the ComEd renewable energy portfolio supply becomes greener overtime. Also, the calculation accounts for the fact that 40% of the ComEd default supply comes from nuclear energy sources, while 60% comes from carbon sources. RECs would not be purchased to offset nuclear energy supply.

Ch. Oppenheim asked how the group feels about purchasing RECs and if this is a good way for the Village to reduce our energy footprint and achieve carbon neutrality. It was discussed how RECs are high impact and have high feasibility but there is a real cost to them. Ch. Oppenheim asked how we feel about paying for RECs and linking it to the electric utility tax. Commissioner Wilde asked about the original intent for the electric utility tax when it was approved in 2010. Mr. Lichterman noted that it was likely passed in recognition that Village rights-of-way, easements, and other public lands are used to support the infrastructure to bring power to homes and businesses. Ch. Oppenheim noted the funds go into the General Fund and are not specifically earmarked. Commissioner Dadey emphasized that the Village would need some good communication around how this benefits the community and the reason why a new tax should be implemented. Ch. Oppenheim noted that she likes how the electric utility tax would incentive people to use less energy and that is more defensible than tying it to the property tax, for example.

Mr. Lichterman noted that staff can bring additional information to the next meeting of how the tax would impact the average resident or small business customer and compare that to how the same revenue would impact the average homeowner if it was placed on the property tax bill.

Mr. Phillips noted that the Village has other taxes and fees based on usage or direct property impacts so this seems to match our past practice. He also suggested purchasing 45% of the RECs needed to match our 2030 goal and couple that with other home energy efficiency programs. Ch. Oppenheim noted that to clarify the 2030 goal, in order to achieve 45% reduction overall we need to reduce electricity consumption by 100%.

Ch. Oppenheim noted that RECs are highly viable and impactful relative to the other ways we could achieve 100% renewable electricity. There is tremendous cost, time and effort, with other programs such as trying to get every home to install solar panels. We know that a very low percentage of people have signed-up for community solar since it is an opt-in program, and that may change overtime, but right now RECs are highly impactful. So the question is if it is the most impactful way, then how do we pay for it.

Commissioner Dadey asked Ch. Oppenheim if she knew how the Board would react to this kind of proposal. Ch. Oppenheim replied that she cannot speak for her colleagues and they are of all different minds on this. We would need to demonstrate how this meets our goals. Commissioner Wilde noted that customers are not paying the true cost of their electricity right now and tying it to the tax brings customers closer to paying the true cost of generating and using electricity. He also noted that we should continue to focus on reducing the carbon footprint right here and while RECs are a good start they are being purchased in Michigan and making that power grid greener. Commissioner Anderson noted several good points have been made and also reported that a recent Gallop poll indicated most Americans would not spend more than $1.00 a month to reduce their carbon footprint and that is an interesting data point to keep in mind. He noted that raising residents' taxes $25 per year on the electric utility tax, for example, could be a meaningful impact for some people and that this would be a regressive tax and for that reason he is opposed to this policy. He noted it would be difficult to articulate how this tax would directly improve someone's life specifically.

Commissioner Dadey asked if there are ways for people to get relief if they truly cannot afford the additional tax per year. Mr. Lichterman noted there are low-income utility assistance programs, such as LIHEAP, available to residents that can demonstrate economic hardship.

Commissioner Oppenheim believes the climate crisis has intensified and there are more people today that are willing to buy into the idea that they can be part of the solution. Commissioner Wilde stated that we should try to be responsible for our own footprint. Commissioner Street concurred noting that if everyone took responsibility for themselves then the problem would be taken care of. She believes the demographics of the community have also changed and the younger families do care about this because they were raised with awareness of the issue. Commissioner Anderson believes that the past experience, such as the small number of households that opted to pay more for green power through the electric aggregation program, and the consumer research in the Gallop Poll show there is not support for this kind of a tax increase.

Commissioner Street noted that the Village takes bold action on policies they believe in and noted the assault weapons ban being affirmed by the Supreme Court as an example.

Ch. Oppenheim noted the Board has set the goal for reducing our greenhouse gases and we have a limited number of ways to achieve that. We have consensus that the RECs are a impactful way to reduce our electricity footprint if we fund that through a tax their will be a large educational campaign required, but if we don't implement a tax and fund the RECs from our current revenues, there will also be an educational campaign to explain to people why we must give up something that we will no longer be able to afford.

Commissioner Anderson favors energy efficiency programs that have a direct and relatable benefit to residents, even if it were to engage the use of tax revenue. Ch. Oppenheim agrees that energy efficiency programs are important and those programs and initiatives should also be pursued and that is why we want to recommend the Village Board adopt the 2021 IECC.

Ch. Oppenheim noted that we still have the energy list from the GRC2 document to review and we have the email from Sustainability Commission member Brian Wolkenberg with specific recommendation to tie to the GRC2 programs. She suggested that we review Mr. Wolkenberg's email and the GRC2 list of energy programs at the next meeting.

Mr. Wilde asked if we know how many businesses we have in town. Staff estimates it to be a few hundred businesses. Mr. Phillips noted we have 360 commercial water meters, for reference, but that doesn't tie directly to the number of businesses.

2. Other Items for Discussion

ICLEI Membership

Mr. Lichterman reported staff had their first onboarding meeting with ICLEI. They have a plethora of resources.

SolSmart

As a follow-up to a question from the last meeting, Mr. Lichterman reported that SolSmart is a program that rates your community on how easy and welcoming it is towards installing solar panels and related items. He noted Highland Park has a bronze designation and Northbrook has gold. It's a multi-step process to complete and something that we would likely want to add to our work plan.

Public Comment

There was no Public Comment.

Adjournment

There being no further business or discussion, Commissioner Anderson moved to adjourn the meeting. Commissioner Wilde seconded the motion. The motion passed unanimously.

The meeting was adjourned at 4:25 pm.

Respectfully submitted,

Andrew S. Lichterman
Assistant Village Manager / Director of Community Development

Overall Goal

Reduce GHG Emissions 45% by 2030

100% Carbon Neutral by 2050

Electricity

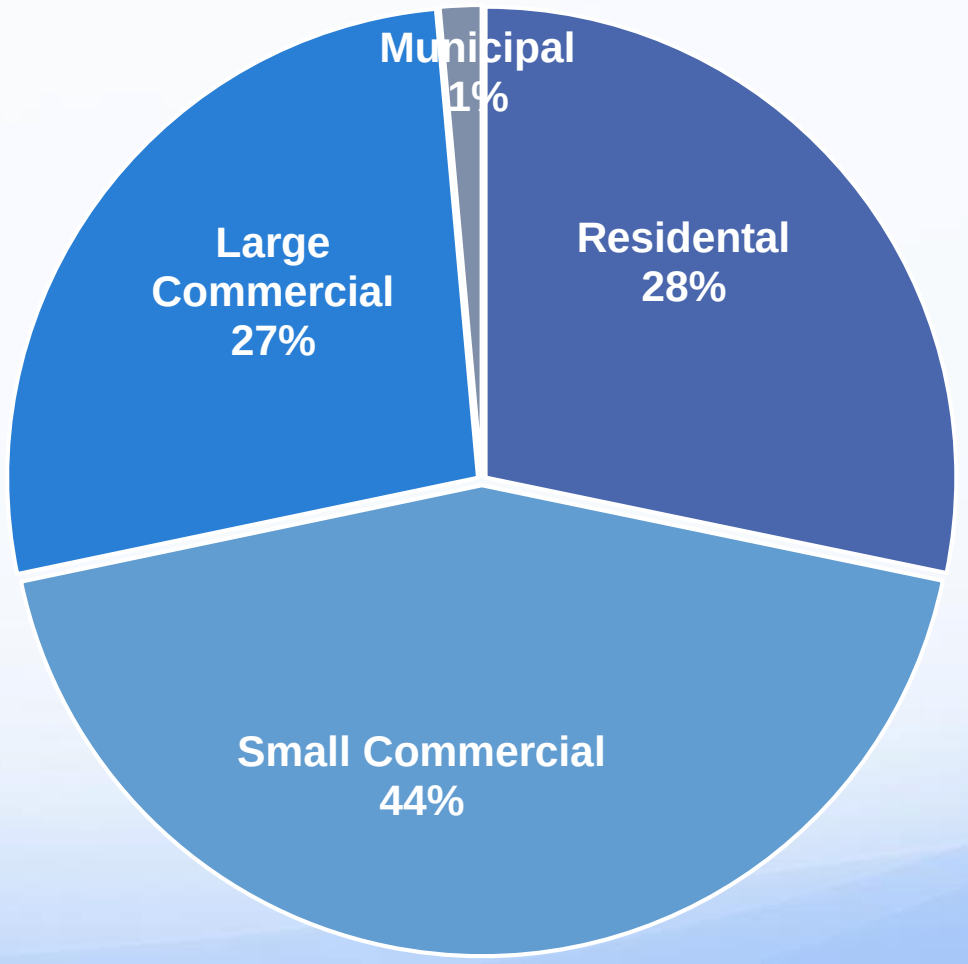
Source	MTCO2 2017	Percent	2030	2050
Scope 1 (In Boundary)				
Natural Gas	**60,185**	**14%**		**14%**
Transportation	**45,750**	**11%**	**6%**	**5%**
Scope 2 (Out of Boundary)				
Electricity	**153,097**	**35%**	**35%**	
Municipal Energy	**2,184**	**1%**	**1%**	
Scope 3 (Purchases: Goods & Services)				
Goods/ Services*	**117,000**	**27%**		**27%**
Food	**42,185**	**10%**		**10%**
Waste	**11,581**	**3%**	**2%**	**1%**
Total	**431,982**	**100%**	**45%**	**55%**

Possible solution toward 45% Goal:

Convert 100% of Electricity to renewable sources by 2030.

Electricity Use: Target Segments

Residental	29%
Small Commercial	44%
Large Commercial	27%
Municipal	1%



Electric Utility Tax
Side by Side Comparison

Kilowatt-Hours Used or Consumed In A Month		Tax (Cents Per Kilowatt-Hour)	
For the first	2,000 kWh	0.61	0.75
For the next	48,000 kWh	0.40	0.62
For the next	50,000 kWh	0.36	0.39
For the next	400,000 kWh	0.35	0.48
For the next	500,000 kWh	0.34	0.41
For the next	2,000,000 kWh	0.32	0.45
For the next	2,000,000 kWh	0.315	
For the next	5,000,000 kWh	0.31	
For the next	10,000,000 kWh	0.305	
In excess of	20,000,000 kWh	0.30	

Renewable Energy Credit Summary

- Need to offset 144,821 MWh (2017) from all sectors
- Cost to achieve 100% Renewables = $434,362 (average $3.00 / REC)
- Contribution from Municipal Aggregation = $60,000
- Remainder Budget to Achieve 100% Renewables = **$374,462**
- Utility Tax Increase:
  - Average Cost to Resident = Additional $18.46 annually
  - Average Cost to Small Business = Additional $331.92 annually
- In comparison, a $370,000 property tax levy would increase the tax bill of a $500,000 home by approximately $42

Andrew Lichterman

From: Brian Wolkenberg <brian.wolkenberg@gmail.com>
Sent: Wednesday, December 1, 2021 9:56 AM
To: Andrew Lichterman
Subject: Re: Couple Things

Hi Andrew - good chatting last week, hope you had a relaxing Thanksgiving. I wanted to get some notes to you earlier, but hopefully you get a few minutes to look at these ahead of the meeting this afternoon. What I have below are ideas in the energy domain that could be part of an overall approach to reducing GHG contributions. Please let me know any questions or feedback - looking forward to the minutes and next steps and how I can continue to help.

Mining the GRC2, these are centered on driving awareness and reducing consumption, some specific ideas in GRC2:

- E9: Utilize performance contracts to finance large energy efficiency projects
- E21: Utilize energy management expertise (i.e. Building Operator Certification and Certified Energy Manager)
- E22: Participate in energy management challenges and programs
- E23: Utilize performance contracts to finance energy efficiency projects when feasible
- E26: Collaborate to advance Property Assessed Clean Energy (PACE) policies
- E27: Adopt 'stretch codes' setting higher standards for energy efficiency than IECC
- E28: Enact an ordinance requiring periodic benchmarking for large energy users
- E32: Publicly recognize institutional and private buildings that achieve a specific energy efficiency targets

Besides the fact that many of these can be implemented with little/no cost, this bundle of ideas drives us to think about how we talk with residents and businesses about the goals and supporting initiatives. Today's discussion is not about marketing (though I believe we'll need one at some point), but these ideas talk about challenges and public recognition and setting stretch goals. That's a very positive, collaborative, rallying messaging - contrasted to a compliance-based message we could easily fall into.

Looking at other town/village/city plans for inspiration, here are a a couple items for consideration:

- Create specific reduction targets by sector so we define what good looks like, know how those goals ladder up to the overall GHG reduction goals, and can measure progress over time
- Let's be sure we can draw a direct line between a program/initiative and its expected impact. Looking at Northbrook's plan, for example, this allows them to project a specific amount of GHG reductions from their bundle of energy programs (e.g. p. 24)
- Leveraging solar more broadly, especially given the state's recent programs supporting solar. If the data support that this an have a big impact (see my last note below), then there may e things we can do within the Village to encourage and reduce friction or uncertainty in on-prem solar installations. In my experience, this is especially true for residential, where buyers/sellers are not used to navigating a transaction where a home's solar installation may be leased to a 3rd party

One last general note, I'd be interested in following the data to the biggest contributing sources and prioritizing initiatives to help there. E.g. we know energy is the largest contributing sector, so let's continue to break that down to understand the biggest sources within that to target.

Thanks!

- Brian

	Category	GOAL		OBJECTIVE / > STRATEGY / + ADVANCED STRATEGY	Already achieved	In Progress	Planned for next 6 months	Planned for next 12-18 months	Interested in pursuing	Not planned	Not relevant	Contact Initials	Notes	Link to Resource
ENERGY	Energy Efficiency	*Use energy for building and facilities efficiently*	*E1*	> Conduct energy audits of municipal facilities	X								ON-GOIN	Y
			E2	**Support energy audits and retro-commissioning studies of residential, commercial and institutional facilities**	X								ON-GOIN	Y
			E3	> Conduct retro-commissioning studies to optimize public facility performance		X								Y
			E4	> Implement operational changes recommended in the retro-commissioning study		X								
			E5	**Implement energy efficiency measures that have a short-term payback (i.e. lighting, occupancy sensors)**	X									Y
			E6	**Implement energy efficiency measures that have a longer-term payback**					X					
			E7	**Collaborate with utilities and other agencies to upgrade streetlight equipment and integrate smart technologies**		X								
			E8	**Achieve ENERGY STAR certification for municipal buildings**					X				WRF	Y
			E+9	**+ Utilize performance contracts to finance large energy efficiency projects**						X				Y
			E+10	**+ Demonstrate extreme energy efficiency with a model Passivhaus building**						X				Y
			E+11	**+ Budget and plan for long-term energy efficiency equipment upgrades**					X					
	Renewable Energy	*Advance renewable energy*	*E12*	**Install and operate renewable energy systems at municipal facilities**					X					
			E12a	> Use power purchase agreements, leasing and other strategies to finance renewable energy systems					X				PAST PPA	Y
			E13	**Support the adoption of renewable energy technologies in the community**		X								
			E13a	**>**Adopt codes and permitting practices that support renewable energy systems in the community	X									Y
			E13b	> Facilitate access to renewable energy systems through collaborative purchasing for residents and business					X					Y
			E14	**Procure renewable energy for public facilities**						X				Y
			E14a	**>**Become a US EPA Green Power Community		X								Y
			E15	**Support procurement of renewable energy through community choice aggregation**	X									Y
			E16	**Develop renewable energy capacity targeting underutilized public properties (i.e. brownfields)**						X				
			E+17	**+ Collaborate to provide access to community solar**	X									Y
	Energy Management	*Reduce energy consumption*	*E18*	**Power down equipment when possible**	X									
			E19	**Participate in demand response programs**	X									
			E20	**Track and benchmark energy consumption through ENERGY STAR Portfolio Manager**					X					Y
			E21	**Utilize energy management expertise (i.e. Building Operator Certification and Certified Energy Manager)**						X				Y
			E22	**Participate in energy management challenges and programs**						X				Y
			E+23	**+ Utilize performance contracts to finance energy efficiency projects when feasible**					X					Y
	Policy	*Enact policies that support clean energy*	*E24*	**Adopt current Illinois Energy Conservation Code (IECC) and report compliance**		X							BY REFER	Y
			E25	**Facilitate the adoption of renewable energy technologies (i.e. solar, geothermal) by adapting building and zoning codes**	X									
			E+26	**+ Collaborate to advance Property Assessed Clean Energy (PACE) policies**						X				Y
			E+27	**+ Adopt 'stretch codes' setting higher standards for energy efficiency than IECC**						X				Y
			E+28	**+ Enact an ordinance requiring periodic benchmarking for large energy users**						X				Y

Category	GOAL		OBJECTIVE > STRATEGY + ADVANCED STRATEGY	Already achieved	In Progress	Planned for next 6 months	Planned for next 12-18 months	Interested in pursuing	Not planned	Not relevant	Contact Initials	Notes	Link to Resource
		E+29	**+ Negotiate franchise agreement with utilities to exercise lump sum payment option to finance clean energy**						X				
Education & Outreach	*Engage the community in clean energy practices*	*E30*	**Partner with electric and gas utilities to promote energy efficiency programs to the community**	X									Y
		E31	**Promote the use of ENERGY STAR certified appliances and equipment**					X					Y
		E32	**Publicly recognize institutional and private buildings that achieve a specific energy efficiency targets**					X					
		E33	**Collaborate to educate the community about clean energy options**		X								Y