



AGENDA OF THE SUSTAINABILITY COMMISSION

**WEDNESDAY, OCTOBER 9, 2019, 5:00 PM
CITY HALL, ROOM 604 - THE HARRY MAIER ROOM**

A. Roll Call.

- I. Chair--Seth Hoffmeister; Vice Chair--Ned Dorff; Alder Randy Scannell; Transit--Essie Fels; John Arendt; Deb Hutchison; Chase Hyland; Julia Noordyk; Mark Walter

B. Approval of the Agenda.

- I. Approval of the agenda for October 9, 2019.

C. Approval of Minutes.

- I. Approval of the minutes from the meeting on August 14, 2019.

D. Regular Business.

- I. Green Tier Legacy Community Program resolution.

E. Informational.

- I. Presentation from JOSHUA and Wisconsin Conservation Voters Community Listening Session
2. Report by members on the One Water Conference in Austin, TX.
3. Update from members on goals and activities.

F. Adjournment.

- 1) THIS MEETING IS RECORDED: THE VIDEO OF THIS MEETING AND MINUTES ARE AVAILABLE ONLINE AT www.greenbaywi.gov

- 2) **ACCESSIBILITY:** Any person wishing to attend who requires special accommodation because of a disability, should contact the City Safety Manager at 920-448-3125 at least 48 hours before the scheduled meeting time so that arrangements can be made.
- 3) **QUORUM:** Please take notice that a majority or quorum of the Common Council will attend this Sustainability Commission meeting and will constitute a meeting of the Common Council for purposes of discussion and information gathering relative to this agenda.
- 4) **REPRESENTATION:** The party requesting the communication, or their representative, should be present at this meeting.



Report to the
Sustainability Commission
of the City of Green Bay

MEETING DATE

October 9, 2019

PREPARED BY

AGENDA ITEM # D.I.

Green Tier Legacy Community Program resolution.

BACKGROUND

RECOMMENDATION

FISCAL IMPACT

ATTACHMENTS

- I. 2018-12-12 Resolution for Green Tier Community

RESOLUTION

RESOLUTION APPROVING PARTICIPATION IN THE GREEN TIER LEGACY

COMMUNITY PROGRAM FOR THE CITY OF GREEN BAY

WHEREAS, the Wisconsin Department of Natural Resources in partnership with the League of Wisconsin Municipalities, 1,000 Friends of Wisconsin, Wisconsin Energy Conservation Corp, Center on Wisconsin Strategy, Wisconsin Counties Association and the cities of Appleton, Bayfield, Fitchburg, Middleton, Ashland, Monona, Eau Claire, Bayside, Port Washington, Sheboygan, La Crosse and the Village of Weston have created a Green Tier Charter for Legacy Communities with goals of:

1. To assist the City of Green Bay in achieving superior environmental performance in both of the following two areas: (1) water resource management; (2) sustainability practices; and goals relating to economic development, public health and social equity; and to recognize their efforts and progress;
2. To improve the quality of life and economic vitality of communities;
3. To help the City of Green Bay and the Wisconsin Department of Natural Resources address wastewater, storm water, drinking water, wetlands and other water issues in a holistic, watershed-based manner;
4. To assist the City of Green Bay in preparing, implementing, and improving an overall watershed plan(s) that integrates the municipality's full range of water resources issues;
5. To assist the City of Green Bay in preparing, implementing and improving over time a sustainability plan that reduces the City of Green Bay's impact on the environment;
6. To facilitate access to state and federal funding for projects and activities related to achieving the purposes of this charter, such as energy efficiency, renewable energy, greenhouse gas reductions, comprehensive planning, transportation policies, and integrated planning for wastewater treatment, storm water treatment and management; and drinking water;

7. To realize taxpayer savings through reduced municipal expenditures on motor vehicles fuels and energy resulting from efficient development patterns;
8. To help the City of Green Bay comply with various water regulations in a more efficient, cost effective and flexible manner;
9. To achieve other demonstrable and measurable environmental improvements beyond what is required by local, state, or federal law;
10. To assist the City of Green Bay in approaching zero waste and improving waste management practices; and

WHEREAS, the City of Green Bay was invited to join in this voluntary program and believe participation will further enhance our city's current commitments to sustainability, and

WHEREAS, the City of Green Bay will benefit from such a partnership with the Green Tier Legacy Communities Program by receiving positive recognition, gaining access to a DNR staff liaison and their resource team, receiving prioritization in applying for certain grants and streamlining in certain DNR permitting processes, and

WHEREAS, the services and resources provided by the Green Tier Legacy Community Program will benefit and assist the initiatives and efforts of the Sustainability Commission, and

WHEREAS, by adopting this resolution the City of Green Bay agrees to sign and hold to the Green Tier Charter for Legacy Communities. We will participate in the quarterly meetings, networks and share information with our public and the communities in the program, and provide an annual report noting the progress in our goals, baselines and sustainability plans.

NOW, THEREFORE, BE IT RESOLVED by the City of Green Bay declares itself a signatory to the Green Tier Charter for Legacy Communities and authorizes the Council President, Mayor, and City Clerk to execute the necessary documents on behalf of the Common Council, and

BE IT FURTHER RESOLVED, that City of Green Bay staff and members of the Sustainability Commission are directed to assist with meeting the Charter goals and to submit an annual report to the Organizational Signatories, and

BE IT FURTHER RESOLVED, that upon adoption, the City Clerk is hereby directed to send a copy of this resolution to the Wisconsin DNR and the Legacy Communities Green Tier Steering Committee.

(Adoption Date)

(SEAL)

(SEAL)

(ATTESTED)



Report to the
Sustainability Commission
of the City of Green Bay

MEETING DATE

October 9, 2019

PREPARED BY

AGENDA ITEM # E.I.

Presentation from JOSHUA and Wisconsin Conservation Voters Community Listening Session

BACKGROUND

RECOMMENDATION

FISCAL IMPACT

ATTACHMENTS

1. 2019-09-11 Final Environmental Justice Report Presentation
2. 2019-09-11 WCV Brown County Environmental Justice Report

Environmental Justice Report



How Brown County residents want local government to tackle the threat of climate change.

Casey Hicks, *Wisconsin Conservation Voters*
Rachel Westenber, *JOSHUA*



**Wisconsin
Conservation
Voters**

Overview / Process

- Environmental Justice Listening Session
 - Over 30 attendees from across the county
- Environmental Justice Survey
 - 20 participants
- Goal
 - To source feedback, concerns, ideas, and equitable solutions for local governments across Brown County to address the effects of climate change.



Participant Makeup

- Majority came from Green Bay, De Pere, and Howard-Suamico
- Concerned citizens, local elected officials, non-profit representatives, and academics/educators



Climate Resiliency

- Flooding
 - Participants expressed that there should be public facing plans for emergency and disaster situations
 - Set volunteers beyond first responders to assist in flooding events
 - Overdevelopment and misuse of land
 - Impermeable surfaces, unused parking lots
 - Riparian zones, buffer strips, and easements
 - Redevelopment and preservation of wetlands
 - Zoning for green space and performing green infrastructure audits
 - Infrastructure
 - Expanding shelters
 - Updating storm water infrastructure



Climate Resiliency

- Health effects
 - Increase in lung disease, heart disease, allergies, mosquito/tick borne illness, and illness resulting from degradation of water quality
 - Solutions offered by participants
 - Sharing public health data between municipalities and health systems related to climate change
 - Penalize polluters
 - “Pass local ordinances that exceed federal standards and enforce them”
 - Urging the state to reinforce and enforce regulations



Climate Resiliency

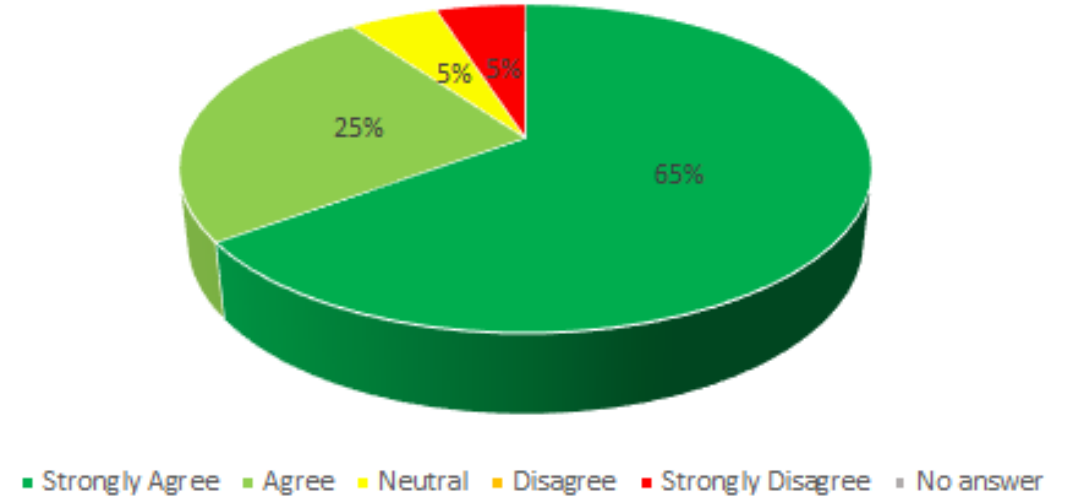
- Vulnerable communities
 - “Continue asking the question ‘Who is not here?’ and create practices that make sure that these populations are a part of the larger decision...”
 - Including people of color, low income, and varying abilities in the decision making process
 - Ensuring local elected officials are well versed in diversity and inclusion practices
 - Educating populations how to become climate resilient
 - Zoning
 - Walkable neighborhoods, eliminating food deserts, and limiting pollution



Clean Energy

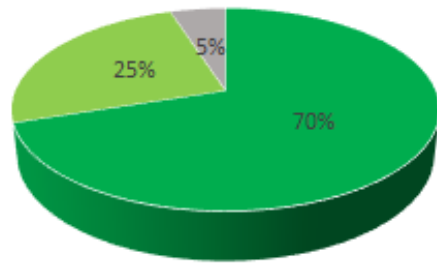
- Overall participants were supportive of clean energy goals
- Many participants in both the listening session and survey expressed that 100 percent renewable energy by 2050 was not soon enough
 - Instead participants opted for 2030 when asked in person at the listening session

We should reach 100% renewable energy much earlier than 2050.



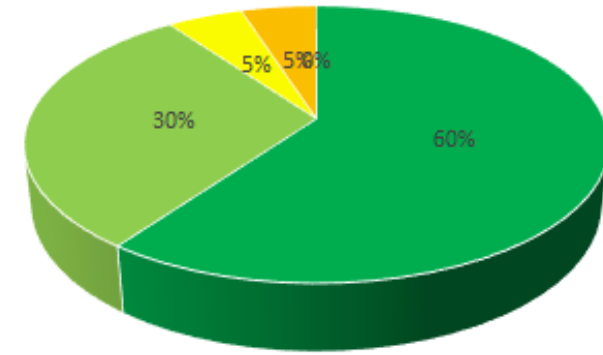
Clean Energy | Homes/Businesses

Should local government provide assistance home and business owners with making sustainability efficiency and clean energy upgrades?



■ Strongly Agree ■ Agree ■ Neutral ■ Disagree ■ Strongly Disagree ■ No answer

I would like to make sustainability, efficiency, and clean energy upgrades to my home.



■ Strongly Agree ■ Agree ■ Neutral ■ Disagree ■ Strongly Disagree ■ No answer



Clean Energy | Homes/Businesses

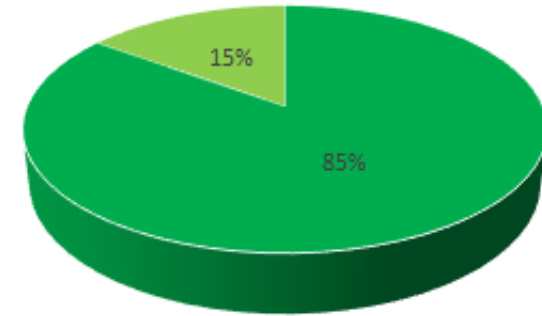
- Participants expressed frustration that they would like to make their own upgrades to their homes and/or businesses but could not afford the upfront cost
 - Barriers
 - Conditional use permits
 - Cost
 - Placement of and zoning for solar panels are prohibitive in some cases
 - E.g. installing panels on more than one face of a building
 - Solutions
 - Revolving loan fund
 - Group buys
 - Protecting and/or tweaking net metering
 - Subsidies, tax credits, and other incentives



Clean Energy | Homes/Businesses

- Results were mixed on establishing standards for new buildings to be energy efficient or have a renewable energy portfolio standard
 - Some participants were apprehensive to set 100% renewable goals for private businesses
 - All participants agreed that government buildings should have strict standards for efficiency and renewable energy

Should local government set standards for new buildings to be energy efficient or run off a certain percentage of clean energy?



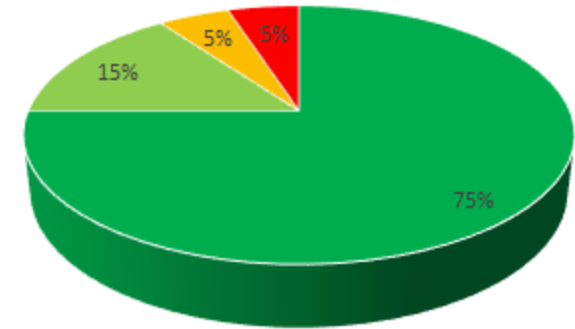
■ Strongly Agree ■ Agree ■ Neutral ■ Disagree ■ Strongly Disagree ■ No answer



Utilities

- Those who cannot install their own renewables would like to see their utility commit to 100 percent renewable energy by 2050
 - Wisconsin Public Service currently is committed to a reduction of CO2 emissions by 80 percent by 2050
- Participants expressed interest in public utilities, instead of private utilities owned by shareholders

Wisconsin Public Service should commit to 100% renewable energy by 2050.

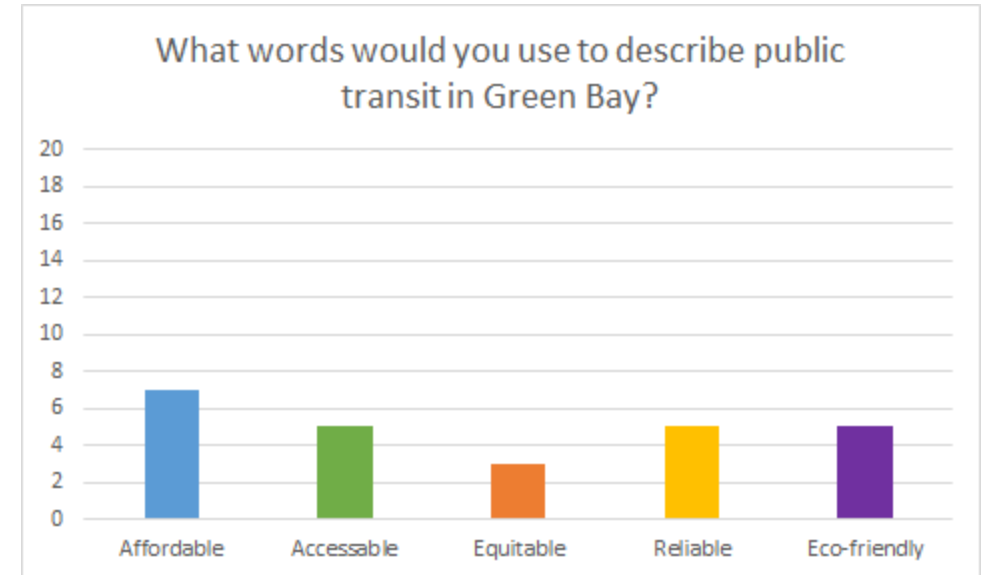


■ Strongly Agree ■ Agree ■ Neutral ■ Disagree ■ Strongly Disagree ■ No answer



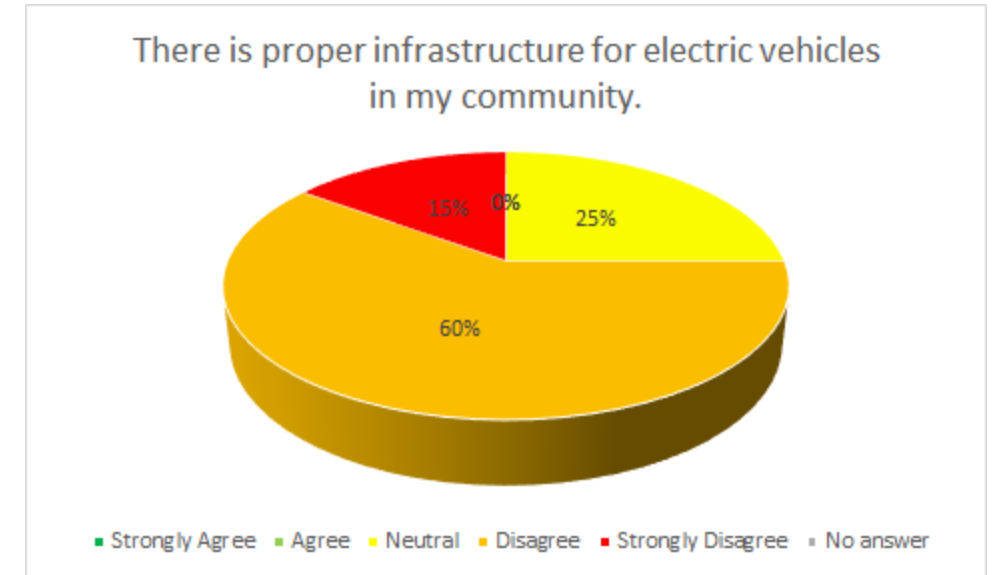
Public Transportation

- Local governments will not only need to account for building efficiency and energy sources, but also encouraging sustainable modes of transportation
- Participants were not satisfied with public transit options in the Greater Green Bay Area
 - 4 survey respondents said “none of the above” described public transit
- Listening session participants expressed a lot of interest in electrifying the bus system



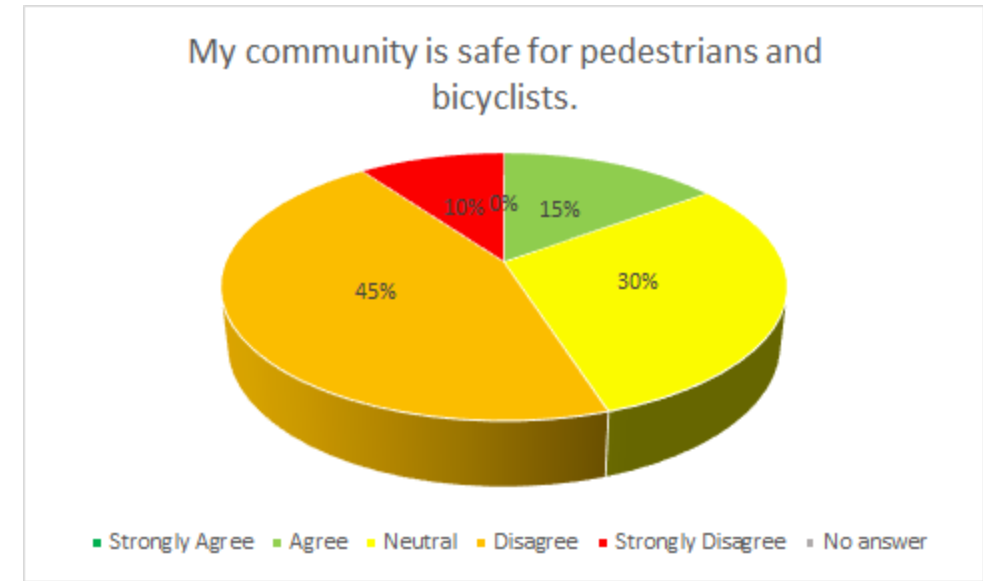
Electric Vehicles

- Participants were excited at the prospect of electric vehicles and would at some point in the future want to own one.
- Lack of vehicle charging stations
 - Many participants did not know where to find public charging stations, though a small amount are available.



Bicycle and Pedestrian Friendliness

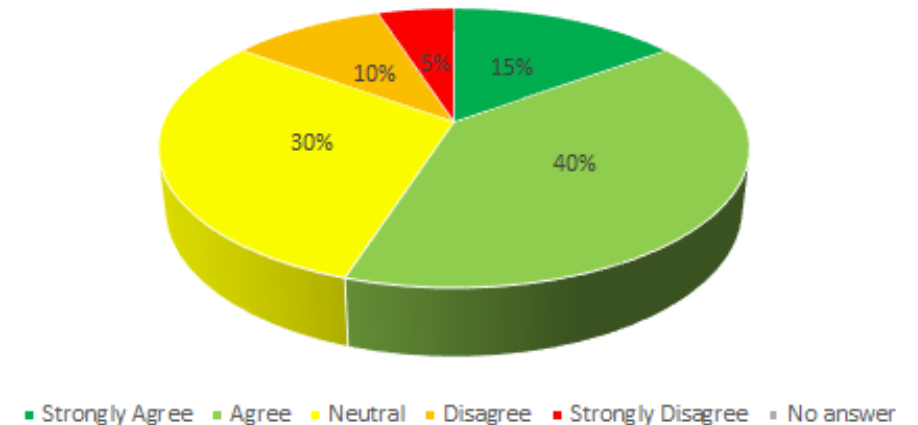
- “Green Bay is definitely a car city and this needs to change.”
- Participants expressed the difficulty to safely bike or walk between municipalities
 - Barriers
 - Bike lanes are not very safe or well kept
 - Bike lanes are not usable or safe in the winter



Waste Management

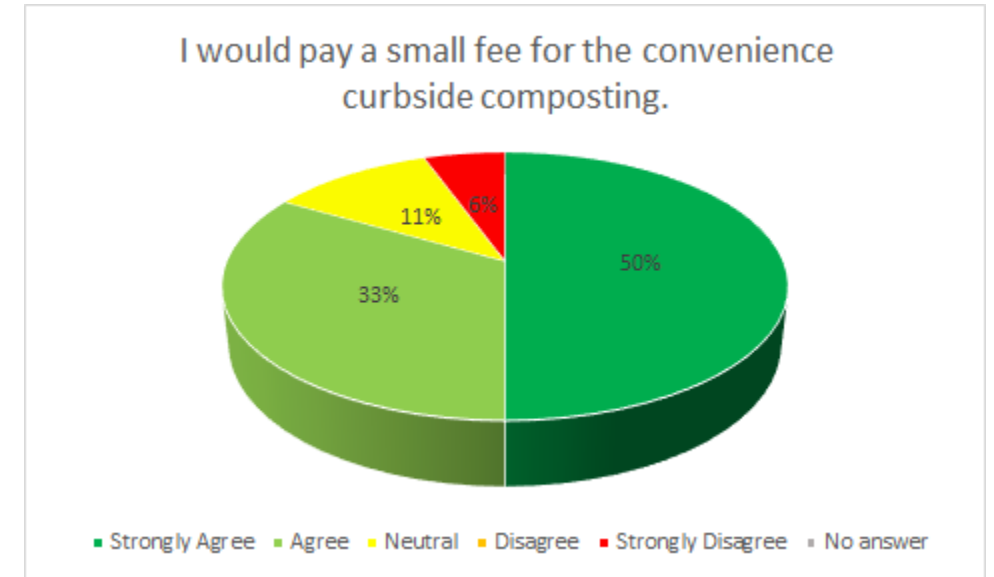
- Results were mixed on whether or not local government provides proper education for recycling
 - Difficult to follow changing recycling guidelines
 - Questions persisted on how to educate people to first re-use and then recycle
- Incentives suggested for low waste lifestyles
 - First and foremost discouraging consumption
 - Markets for already existing waste
- Many participants said that there's enough education, but not enough accountability
 - Banning single use plastics
 - Cracking down on overproduction

Local government provides enough information on how to properly recycle or dispose of waste.



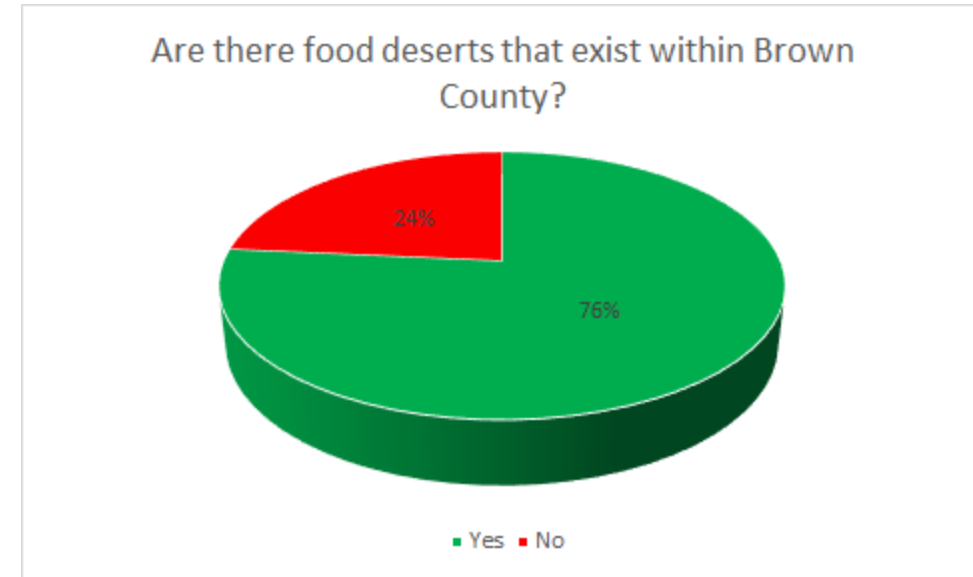
Curbside Composting

- A large number of participants expressed interest in composting
 - Some said it would depend on the amount to be paid and how compost would be used
 - Provided cheaply or for free to community gardens or organizations
- Incentivize restaurants to compost
- Providing education on what and how to compost



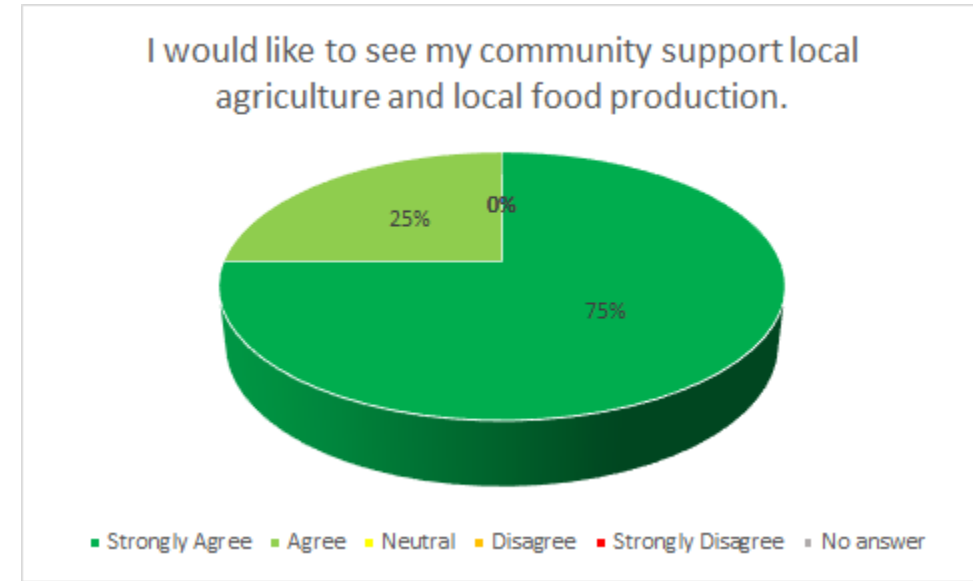
Food Deserts

- Participants made the distinction that there are both food deserts and food swamps
 - Food deserts – Areas with no food available for residents
 - Food swamps – Areas with unhealthy or limited choices in food
- Areas of concern as described by participants
 - Downtown Green Bay
 - Main St.
 - Bay Beach area



Food Systems

- Interest in creating a Food Policy Council with a Food Memorandum of Understanding
- Many participants expressed interest in supporting locally grown food
 - Planting fruit and nut trees in public spaces that anybody can pick
 - Small sustainable farms
 - Community gardens
- Participants expressed disappointment in the lack of local grocers and said they would like to see co-ops



Conclusion

- Residents want their local governments to be:
 - Adapting and preparing for the future
 - Saving money through energy efficiency and clean energy
 - Protecting public health in a changing climate
 - Ensuring a Just Transition
- Precedents have been set
 - Monona, Eau Claire, Dane County, Madison
- You have the *greenlight* to go *green*!



Questions?



**Wisconsin
Conservation
Voters**

Environmental Justice Listening Session Report

*A review of Brown County residents' climate
concerns*

Introduction

On June 12th, Justice Organization Sharing Hope and United for Action (JOSHUA) and Wisconsin Conservation Voters held an Environmental Justice Listening Session with 30 residents across Brown County in attendance. The goal of the event was to gather feedback, concerns, and ideas from a cross section of Brown County residents about how local governments can address policy issues equitably across multiple topics. The topics all centered on challenges that will come as a result of climate change, which included: climate resiliency, clean energy, transportation, waste management, and food systems.

The listening session sought qualitative feedback and stories from residents; subsequently, we released a public survey to gain additional quantitative and qualitative feedback from Brown County residents. The survey yielded an additional 20 responses, ranging across the same five topics presented at the listening session. The survey was circulated so that residents who could not attend the listening session could still provide feedback.

Overall, we found that residents are acutely aware of the challenges the region faces throughout the coming years. Participants were eager for and ambitious about the solutions local government can implement, while concerned by the relatively short amount of time that government has to act upon them. Local officials can use this report to discern where their citizens lie on a variety of issues and begin to gauge what their overarching environmental goals should entail.

Climate Resiliency

Overview

Climate change presents a myriad of challenges for municipal governments in how to address severe weather events, large scale flooding, decreased water and air quality, and health issues related to decreased environmental quality. Furthermore, the question stands on how the region's local governments can find equitable solutions to these problems that do not leave people of color, those of low income, the elderly, children, and the disabled out of the conversation. Residents throughout Brown County are already cognizant of the challenges they will be facing in the upcoming decades, and they are eager for local government to enact policies that bolster climate resiliency. During the listening session we found that concerns about flooding are the most pervasive. This concern is due to the Greater Green Bay Area being on a floodplain. This particular floodplain has seen periodic flooding over the years, but has recently had more frequent occurrences of flooding increasing the concern of local residents. Flooding can be detrimental to individuals' homes and lives, but can be a financial burden to the local government as well. These flooding events will only increase as severe weather events become more and more likely due to a warming climate¹.

¹ Denchak, Melissa. (2019, April 10). Flooding and Climate Change: Everything You Need to Know. Retrieved from <https://www.nrdc.org/stories/>

The healthcare industry will also be impacted by climate change. The healthcare industry in the Greater Green Bay Area is a large contributor to the regional economy with three separate healthcare providers (Bellin, Aurora Baycare, and Hospital Sisters Health System). The industry will be facing challenges due to the health effects of climate change including: increased lung disease, heart disease, allergies, mosquito and tick borne illnesses, and illnesses as a result of degrading water quality². Unfortunately, there were no healthcare representatives present at the listening session including representatives from Bellin that were invited.

Flooding

As flooding becomes a more pervasive challenge in the ensuing climate crisis, the Greater Green Bay Area will need to find solutions to properly plan for and mitigate large scale flooding events. Between summer 2018 and spring 2019 the area has faced multiple flooding events, one of which in March resulting in Brown County having to mobilize emergency services to evacuate residents along the East River³. These events resulted in residents becoming displaced, being caught in life-threatening situations, homes becoming condemned, and losses in economic productivity for the region.

One of the first solutions given at the hearing was to educate residents on how to prepare for flooding. One respondent stating, "Many residents don't know what to do in extreme weather events." Others echoed that sentiment by suggesting that local governments run public service announcements detailing how residents should prepare and respond to worsening weather. Participants in the survey urged local governments to create plans for emergencies and consistently publicize them to residents. Even more attendees expressed that their government should provide education to residents on how they can adapt their properties to attempt to be more climate resilient; specifically, in case of extreme weather events.

Overdevelopment and the incorrect use of land came up in both the survey results and listening session. Creating easements and limiting development near floodplains and waterways was of major concern for one participant. Many others agreed with each other that less concrete and impermeable surfaces should be used. In response, some participants added that there were too many unused parking lots that do not allow water to properly drain.

One solution participants suggested was for parking lots being zoned to have a certain percentage of green space in them to absorb excess water. In general, there was a high demand for more green space and green infrastructure throughout the area. Another survey

² World Health Organization. Climate Change And Infectious Diseases [PDF file]. Retrieved from <https://www.who.int/globalchange/climate/en/chapter6.pdf>

³ Srubas, P., & BeMiller, H. (2019, March 18). It's been a hard four days: Residents recover, assess damage after East River flooding. *Green Bay Press-Gazette*. Retrieved from <https://www.greenbaypressgazette.com/story/news/2019/03/18/green-bay-flooding-residents-assess-damage-east-river-flood/3202717002/>

participant proposed the use of riparian zones or buffer strips of vegetation along waterways to not only mitigate flooding, but to also filter runoff and protect water quality.

Participants showed strong interest in a slew of emergency preparedness solutions with the understanding that these events will still happen despite local governments making their best efforts. As mentioned before, participants expressed an interest in creating community wide plans in case of disaster and emergency with an emphasis on the capability to mobilize rapidly. In addition, training and utilizing more volunteers to assist in flooding events beyond traditional first responders was offered as a solution.

Lastly, infrastructure was of major concern for participants. Upgrading current stormwater infrastructure was a must for many, along with performing green infrastructure audits to identify areas of need. One participant offered the idea of creating, designating, and advertising public shelters for emergencies; thus, creating safe locations for people to evacuate to.

Health Effects

As air and water quality degrades due to climate change, residents will become more susceptible to adverse health outcomes. If certain practices that contribute to degraded air and water quality are not phased out within the coming years, then health concerns such as asthma, allergies, lung disease, heart disease, mosquito and tick borne illness, toxins from cyanobacteria, and even more health complications will become more pervasive and challenging to treat. Fortunately, our area benefits from having several large scale health providers, such as Bellin, HSHS/Prevea, and Aurora Baycare.

One of the first steps participants suggested local governments and utilities begin pursuing is to phase out coal fired power plants and other dirty forms of energy that may still be operational in our area. However, the Green Bay Pulliam plant that was operational has since closed. The reason cited for the closure was that low natural gas prices and large-scale solar were causing coal to become less cost effective⁴. Still, this thought mirrors many other areas covered in this report and only adds to the urgency and demand from residents for clean energy.

Data sharing across health systems and public health departments was also proposed by participants. They asserted that data pertaining to health effects as a result of climate change should be shared to quickly address and adapt to emerging health crises. This practice would help local governments and hospitals adequately prepare and mitigate emerging public health crises.

Local government leaders should also feel encouraged by participants to draft and enact policies which protect public health. "Pass local ordinances that exceed federal standards and enforce them" was the opinion of one participant, which many others echoed. Local government holds the unique power to pass resolutions and lobby state government to strengthen and better

⁴ Murray, Patty (2019, August 30). Green Bay's Pulliam Plant Will 'Retire' By End of 2018. Wisconsin Public Radio. Retrieved from <https://www.wpr.org/green-bay's-pulliam-plant-will-retire-end-2018>

enforce regulations. Participants felt that this was a unique responsibility that local officials should be exercising to hold both state government and polluters accountable for both their actions and inactions.

Agriculture

Farmers are a central pillar of the Wisconsin economy and are currently suffering as a result of low commodity prices and international tariffs⁵. The agricultural industry stands to both lose and gain from actions or inactions associated with climate change. Farmers should be a part of the decision making process and are integral to climate solutions due to their unique relationships with land, air, and water. Participants in both the listening session and survey were adamant about the role of agriculture for solving current and future problems.

To keep the agricultural industry robust and limit their contribution to climate change, suggestions were made to offer tax incentives to farmers for sustainability practices they could implement. Creating low interest loans to invest in green infrastructure were suggested to lessen the impact farmers would have on local water quality, food systems, and more. One novel idea from a participant at the listening session was to transport city topsoil from new developments to farmers to replace any nutrient starved soil on their land. Solutions like these were one facet of the overall attitude that more research should be done to understand how climate change is currently impacting farmers and how farmers will be impacted by climate change in the future. Furthermore, participants were interested in the creation of a local panel or the inclusion of farmers into an already existing body to contribute to this type of research.

With the understanding that farmers hold vast swaths of land, those at the listening session felt farmers had a unique opportunity. Participants said that farmers should be encouraged to lease some of their land that is not suitable for production or will no longer be suitable for production for clean energy installations. This practice would help them to generate revenue for otherwise unproductive land, decrease their carbon footprint, and inch the electrical grid closer to 100% clean energy.

It should be noted that while participants felt strongly that the agricultural industry should be incentivized to adapt to climate change and lessen their impact, many still felt there should be regulations in place to protect water quality, prevent flooding, improve soil health, and protect public health in general.

Vulnerable Communities

As climate change continues, environmental justice must remain at the forefront of local governments' agendas. People who are of low-income, communities of color, those with

⁵ Soellner, M. and Ansari, H. (2019, August 30). What impact is the Trump administration's trade dispute with china having on Wisconsin?. *Appleton Post-Crescent*. Retrieved from: <https://www.greenbaypressgazette.com/story/news/2019/07/02/trade-may-impacting-you-more-than-you-think/1211651001/>

differing abilities, members of the LGBTQ community, the elderly, and transient populations must be accounted for and included in policy making.

Participants felt that having diverse groups included in the decision making process was necessary to ensure climate resiliency for all. The best way to create fair and equitable policies is to directly involve those most adversely affected by them. For example, including clauses and rules that create diverse decision making bodies. One participant urged local leaders to continue asking the question “Who is not here?” and continued saying that local leaders must “create practices that make sure these populations are a part of the larger decision...”. This option may not always be possible in some municipalities. Representatives of certain communities may not have enough time or may distrust the process, or it may simply be too difficult to identify these populations. Because of these reasons, participants responded that applicable decision makers should be well versed in how their privilege and unconscious or conscious bias is affecting their policies.

More generally, participants reasserted that creating walkable neighborhoods with great public transit were important for not only diminishing carbon footprints, but also ensuring equity for those who cannot afford a personal vehicle. A local government’s use of zoning is particularly important for creating pedestrian friendly neighborhoods and keeping vulnerable populations away from pollution causing industries. Furthermore, participants urged to limit or completely stop the use of fossil fuels, which are often located next to communities of color and low-income⁶.

Clean Energy

Overview

Clean Energy is an urgent issue and an increasingly popular alternative to fossil fuels. Today more and more companies are beginning to incorporate clean energy into their businesses. While communities such as Green Bay have made great strides in committing to 100% clean energy by 2050, many people agreed that a more ambitious goal should be set for local, state, and federal governments. Solar, wind, and other forms of clean energy are becoming less inexpensive as time progresses. In comparison to replacing outdated coal fired power plants, clean energy is fast becoming the norm and expectation for the future.

Given the United Nations’ Intergovernmental Panel on Climate Change’s 2018 report detailing that we must avoid a temperature change of 1.5 degrees Celsius by 2030, or face irrevocable change in our climate, participants in both the survey and listening session felt that 2050 is not ambitious enough⁷. Participants voiced their concern that the final date to achieve 100% clean energy should be moved closer to 2030, rather than 2050.

⁶ Massey, Rachel (2019, August 30). Environmental Justice: Income, Race, and Health. Retrieved from http://www.ase.tufts.edu/gdae/education_materials/modules/Environmental_Justice.pdf

⁷ IPCC. Special Report: Global Warming of 1.5 °C. (2018). Retrieved from <https://www.ipcc.ch/sr15/>

Solar Panels

While solar energy is becoming more popular and less expensive, affordability and access to these panels are still a concern for Brown County residents. Many people shared that they would like to be able to install solar panels but cannot afford it. Some suggestions were made to create low-interest or forgivable loans to help fund more clean energy installations for individual households. When asked about their support for establishing a revolving loan fund, participants agreed that would allow for a consistent source of funding. The average-sized installation cost in the United States can range anywhere from \$10,836-\$14,196 after solar tax credits. This cost is about \$2.98/watt and the average system size in the U.S. is around 6/KW⁸. That type of cost is still beyond the reach of many residents.

Placement of solar panels was also brought up by the participants of the listening session. It was suggested that residents should be able to install them on any face of a home or building. They had felt it was another limitation to the ease and convenience of installing residential solar. Beyond making the process more streamlined and easier to navigate, if installations were placed where people could easily view them it would bring more attention to solar energy initiatives. As residents are seeing both their local government and neighbors making the transition to clean energy, they will become more emboldened to do so as well. Participants urged local officials to examine existing regulations and zoning procedures to determine whether they inhibit or encourage residential solar installations. Conditional use permits, zoning, and rules for placement of solar panels were all concerns.

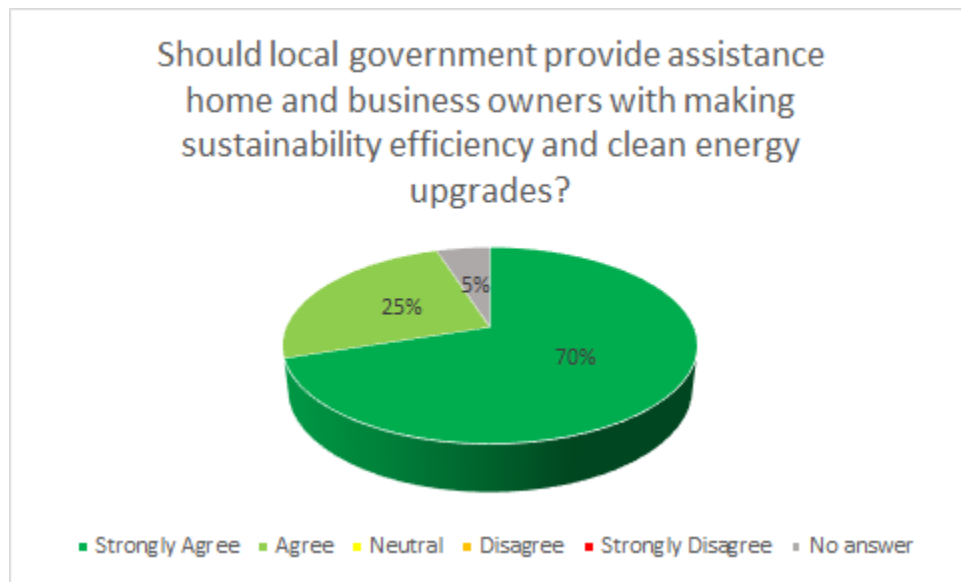
Local Government

Participants showed interest in the debate between publicly owned utilities versus private utilities owned by shareholders. They felt that because privately owned utilities are beholden to their shareholders and profits, that they may not always hold the best interest of their ratepayers. While this may not be possible for Brown County because Wisconsin Public Service is the sole utility, other alternatives exist which give residents more energy autonomy.

Of the survey participants, 70% strongly agreed while another 25% agreed that local government should be providing assistance to home and business owners to make sustainability and clean energy upgrades to buildings. Considerable interest was given towards local government facilitating group-buys or community solar projects amongst neighborhoods to lower the cost of installation. Participants in the listening session also expressed that they would be content with both local government and themselves leasing space for clean energy installations, rather than paying the upfront cost of purchasing them. Either of these measures would place more control in the hands of residents, save taxpayer dollars, and save on individual household costs.

⁸ Marsh, Jacob. (2019, August 22). What is solar racking? Retrieved from <https://news.energysage.com/solar-racking-overview/>

Figure 1



Communities such as De Pere and Green Bay have made great strides in taking concerted efforts to become greener. Green Bay has established itself as the leader for clean energy in Brown County by already committing to 100% clean energy by 2050. However, local governments should feel emboldened to enact even more ambitious goals. Figure 2 demonstrates that 65% of survey participants strongly agreed that 2050 was not ambitious enough, 25% agreed, 5% were neutral, and 5% strongly disagreed. One survey participant asserted that 2050 was “not soon enough”. 2030 was suggested as a more ambitious goal at the listening session prior and the survey results further affirmed that feeling. Furthermore, 100% of respondents felt that local government should be setting efficiency and clean energy standards for new government buildings illustrated in Figure 3. There was apprehension expressed at the listening session that these standards should carry over to residences and businesses.

Figure 2

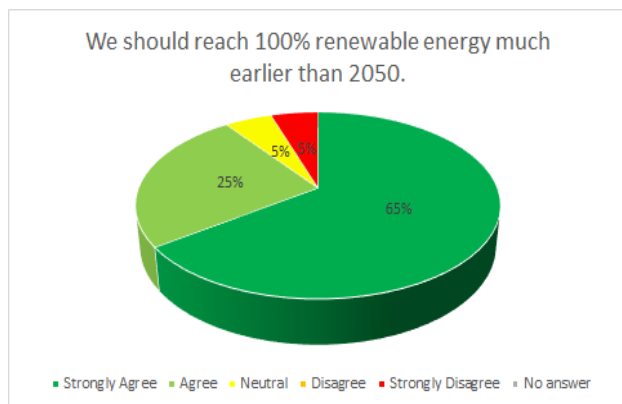
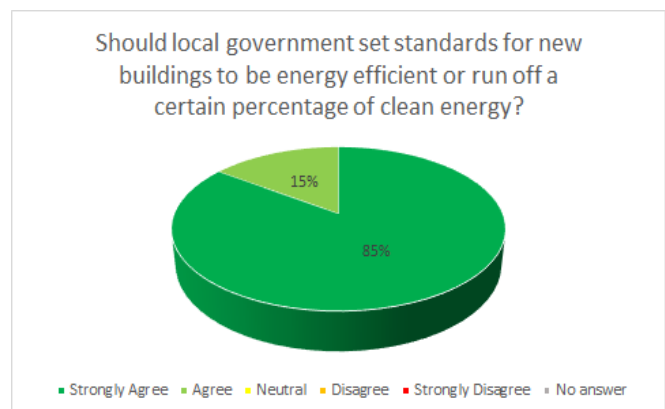
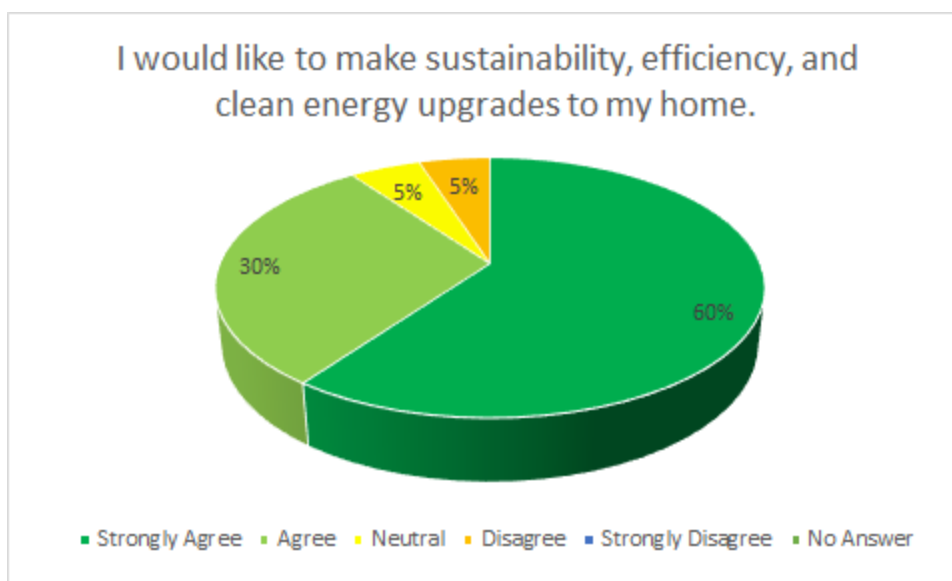


Figure 3



Educating the public is an important avenue of promoting clean energy and dispelling fears or concerns held by residents. At the listening session participants felt that local governments could hold weekly listening sessions for citizens to learn more about clean energy. As expressed previously, participants would like to make their own upgrades, but often do not know how to or if they can afford to do so. This apprehension was especially apparent in survey results where the majority of respondents, 60% strongly agreeing, and 30% agreeing, said they would like to make upgrades to their homes, but 10% still either disagreed or strongly disagreed (Figure 4). Providing not only financing options, but education materials and sessions would help to alleviate citizens' reservations.

Figure 4



Lastly, it should be noted that while local government does not necessarily have a hand in issues related to net metering, participants felt it was important to protect. Net metering is yet another incentive for residents to offset their electric bill, based off the electricity they are producing and contributing to the overall grid. As mentioned in the Climate Resiliency section, local government possesses the ability to pass resolutions detailing their support of state actions.

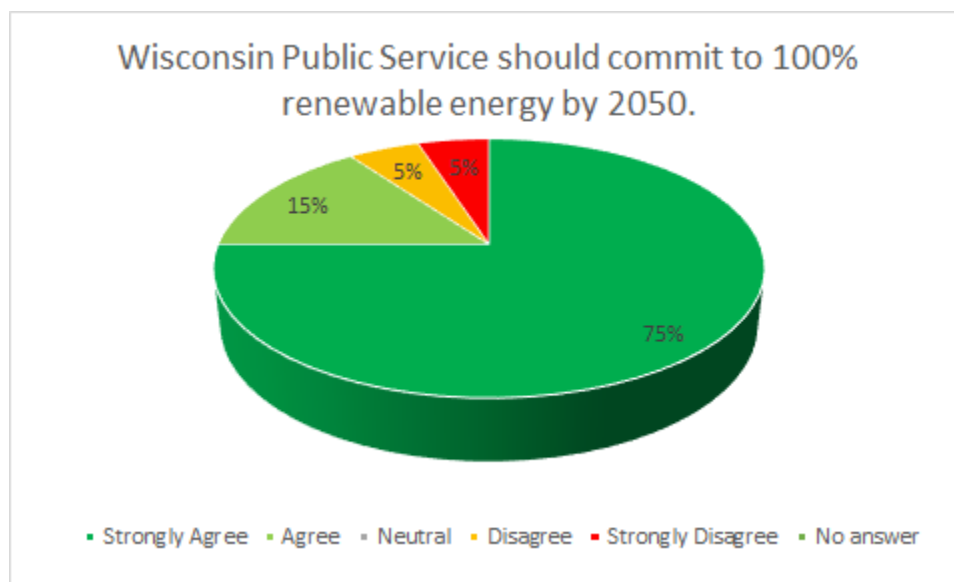
Utilities

Utilities hold a unique responsibility in the communities they service. They often set precedent and viewed as leaders in the energy industry, no matter their size. When asked whether Wisconsin Public Service should commit to 100% renewable energy by 2050, participants vehemently agreed that should be the case. 75% of respondents strongly agreed, 15% agreed and only 10% either disagreed or strongly disagreed (Figure 5).

Currently, Wisconsin Public Service (WPS) is committed to reducing carbon emissions by 80% from 2005 levels by 2050⁹. This goal emanates from WPS' parent company, WEC Energy Group. Due to solar and wind energy's intermittency, storage technology is an important component to reaching 100% clean energy by 2050. Despite these challenges, Xcel Energy announced the goal of reducing carbon emissions by 80% by 2030, with the ultimate goal of reaching carbon free energy production by 2050. "We are confident that we can get to the 2030 target with the technologies that we have today. But we're going to need some additional technologies, some innovation in order to be able to achieve the 2050 goal," said Frank Prager Xcel's Vice President of Policy and Federal Affairs¹⁰.

While energy storage technology may not be sufficient currently, ratepayers, citizens, and utilities such as Xcel are eager to reach lofty, yet needed goals. Utilities should feel encouraged from their ratepayers, local governments, and their energy industry competition to enact bold plans.

Figure 5



⁹ WEC Energy Group (2019, August 30). Pathway to a Cleaner Energy Future. Retrieved from <https://www.wecenergygroup.com/csr/climate-report.pdf>

¹⁰ Kirwan, Hope (2019, August 30). Xcel Energy Works Toward Carbon-Free Power by 2050. Retrieved from <https://www.wpr.org/xcel-energy-works-toward-carbon-free-power-2050>

Transportation

Overview

An EPA report from 2017 revealed that transportation in the US contributes to about 29% of our total greenhouse gas (GHG) emissions¹¹. Clearly, a reduction of emissions from public transit could aid greatly in combating climate change. Being the fourth most populous county in Wisconsin, Brown County possesses the size to champion a greener future. Residents are hopeful for this and at the listening session, and through the survey, discussed modern solutions to push the area forward.

During the listening session residents were asked about their thoughts on electric vehicles, bike friendliness and walkability. The survey further inquired on that and also got feedback on public transit in the Green Bay metropolitan area. Efforts state-wide to improve public transit systems and increase electric vehicle (EV) charging stations are beginning to heat up, but locally residents maintain low confidence in the current state of both. While many agreed (in the survey responses and the listening session) that the safety of pedestrians and cyclists was not good enough, the general sentiment was hopeful for a future in Brown County with safe thoroughfares for pedestrians and cyclists.

Electric Vehicles

The growth in public interest for EVs has been increasing greatly over the past few years. Bloomberg New Energy Finance predicts sales will go up 30-fold as prices fall in line with that of standard gas-powered vehicles¹².

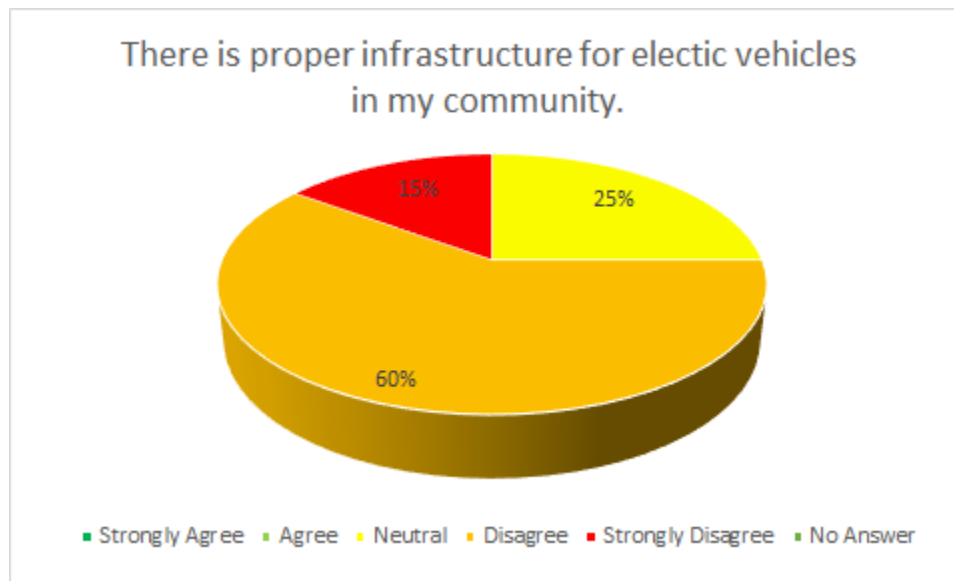
Participants explained that concern over limited charging stations for EVs is a primary reason for not buying one; specifically, along corridors between Green Bay and Milwaukee. In our survey, 75% of respondents selected either “disagree” or “strongly disagree” when asked if they felt there was proper infrastructure for EVs in their area. The other 25% were neutral on the topic and felt unsure due to never seeking one out (Figure 6). One survey respondent illustrated the general perception quite accurately with, “Show me a single public charger”. A recurring theme amongst participants in both the survey, and the listening session was that people felt there were not enough public charging stations. Furthermore, of the 10 charging stations that exist in the Greater Green Bay Area, a large amount are hosted by private businesses.

¹¹ EPA. (2019, August 8). Greenhouse Gas Emissions: Sources of Greenhouse Gas Emissions. Retrieved

from <https://www.epa.gov/ghgemissions/sources-greenhouse-gas-emissions#transportation>

¹² McKerracher, C., Izadi-Najafabadi, A., Soulopoulos, N., Doherty, D., Frith, J., Albanese, N.,... Zamorano-Cadavid, A. (2019). Bloomberg Electric Vehicle Outlook 2019. Retrieved from <https://about.bnef.com/electric-vehicle-outlook/#toc-viewreport>

Figure 6

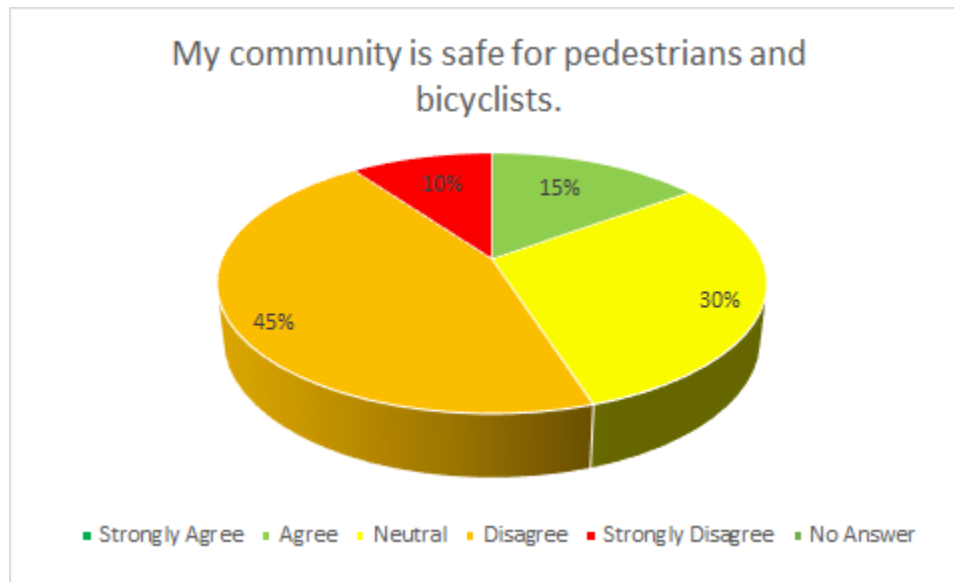


Bicycle Friendliness and Walkability

Proper cycling and pedestrian infrastructure remain a challenge for even the largest cities, but the Greater Green Bay Area seems to struggle with this more than most based on the survey and listening session participants. Not one person in the listening session, or survey, thought that Green Bay was overall, a safe city for walking and biking. “Green Bay is definitely a car city and this needs to change” one participant explained. This quote shows that residents are very cognizant of the city’s transportation restrictions, yet believe in the need for change to make the city greener, and more diverse in its appearance.

In two instances respondents in the survey say that while trails and certain areas are safe, the rest are not. This sentiment is the positive outlier, as 85% of survey respondents felt neutral or worse in regards to pedestrian and cyclist safety (Figure 7). Moving away from vehicular traffic is important for both local health in regards to air quality, but also decreases noise pollution, and reduces traffic congestion. One survey respondent said, “I bicycle to work and as many places as possible and feel that the community does not share the road with cyclists in a safe way.” Because of few bike lanes, cyclists often have to share lanes with cars which is more dangerous for cyclists and drivers who may not see them coming. During the listening session, residents mentioned establishing safe zones for bicycles and pedestrians. This solution would include anything from painted bike lanes and widened sidewalks, to curbed or otherwise protected bike lanes and pedestrian only streets.

Figure 7

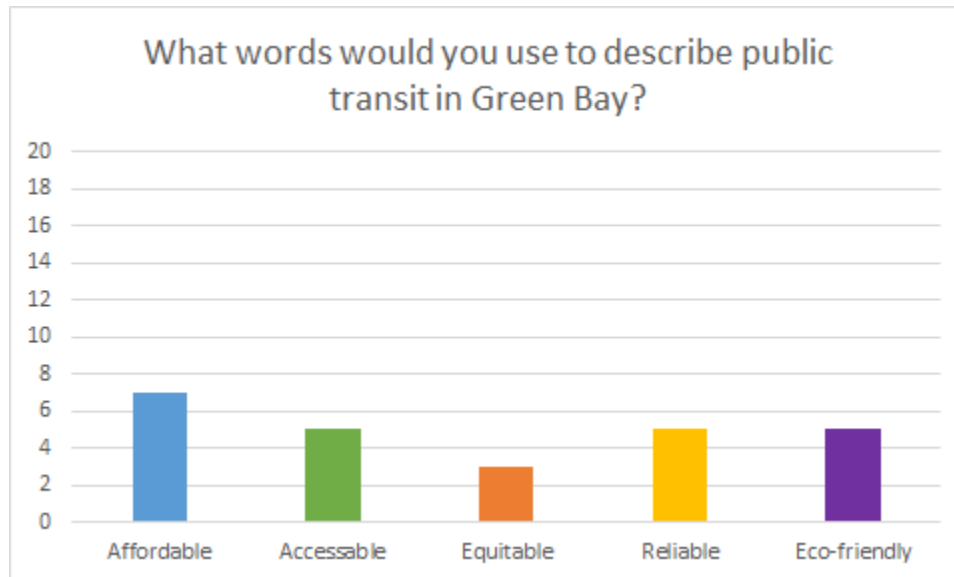


There was also notable concern over inter-municipality travel. It is much more difficult to bike or walk between municipalities like Green Bay and Ashwaubenon, than it is to drive, as brought up by participants in the listening session. Through further discussion, it was mentioned that while there are a few trails available making it doable, it was agreed that it is not enough to make it a realistic option for most people. The barrier for non-vehicular traffic between municipalities presents a greater problem than meets the eye; not only does it discourage greener, and more diverse transportation, it restricts lower-income families from certain jobs, and schooling opportunities if they cannot afford a car.

Public Transit

To gauge public feelings towards Green Bay transit, we gave survey respondents a list of five positive adjectives to select from to describe public transit in Green Bay (Figure 8). The numbers themselves are less than impressive, the most popular being “affordable” at 35%, the written responses were even more indicative of an unenthused public. Four respondents claimed that they would use “none of the above” to describe Green Bay Public Transit, and many others articulated a similar sentiment of discontent. One simply stated that “Public Transportation in the Green Bay Area barely exists as a viable alternative.” Of the responses that were not completely negative, people’s feelings seemed luke-warm at best, and everyone who felt relatively neutral had said beforehand that their experience with the public transit was either limited, or non-existent. Another respondent, who has never used Green Bay Transit, said they do not believe many people do use it, but provided that the city should look into further incentivizing it. One could argue that rider-ship is too low for incentives to be worth it, but this is a reciprocating phenomenon. Incentives increase ridership, which then expand the ability to create even greater incentives.

Figure 8



The public has made clear that they want Brown County green. The statistics show that interest and need is only going to grow, but with municipal accommodation and encouragement, that future can start now. Lack of proper infrastructure is preventing residents from choosing green alternatives on their own. The people want alternatives to fossil-fueled transportation but lack the structural support in their area. If funds are aimed towards creating more charging stations EV usage will skyrocket in the area to make Brown County far more breathable. People don't always want to drive their vehicles but feel forced to. Participants voiced many safety concerns due to there being not enough accommodation for non-vehicular transportation. The public transit system is underused in the Greater Green Bay Area and the survey explains why; the public feels it fails to deliver adequate service and is generally disappointing. The biggest theme throughout our research is that the public seeks to have a city with modern and sustainable initiatives, but receives little to no support from their hesitant government with leaders reluctant to move forward.

Waste Management

Overview

Waste management has become a national issue. Many campaigns are pushing for consumers to recycle and compost more while also making an effort to avoid plastic and styrofoam consumption altogether. Today, many citizens of Wisconsin suffer from limited access to sustainable waste management resources making it difficult for concerned citizens to take action. Additionally, there is limited information provided to Wisconsinites about the limited composting programs that currently exist. This circumstance has left many residents without the

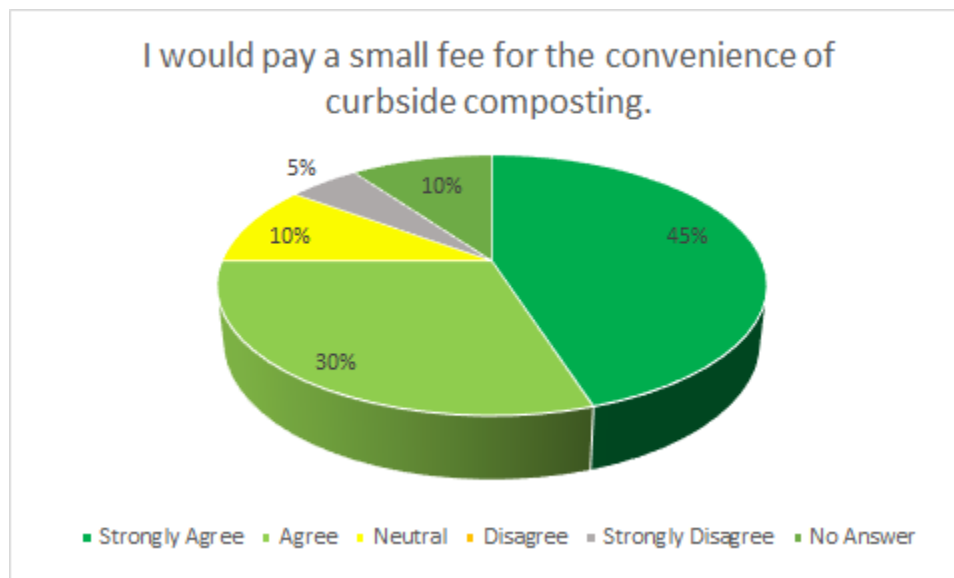
options that they want in order to positively impact their communities through sustainable waste management.

Curbside Composting

With the spread of composting across the country, this sustainable practice has gained considerable popularity in recent years. Many people shy away from composting due to the amount of effort needed. For indoor composting, many people simply do not want the adverse effects of having decomposing food in their household, such as the odor. Furthermore, during the listening session, attendees expressed that there was a need to include more education regarding composting options and also to incentivize restaurants to compost since they are responsible for large amounts of food waste. For these reasons, there have been innovative ideas brought to the composting scene including curbside composting.

Curbside composting offers residents a chance to participate in composting without having to deal with the accumulating compost that residents with limited space and time are not able to effectively manage. Curbside composting programs also benefit communities as a whole by creating new jobs and earning potential revenue. In the survey, there was substantial interest in the idea to have local governments provide curbside composting for a small fee. The survey yielded 45% of respondents strongly agreeing to pay a small fee for the convenience, with an additional 30% agreeing (Figure 9). Even though the initial implementation of the program can sometimes be costly, with proper management, the process can be streamlined and made more efficient and even profitable. Selling the compost to farmers can help the local economy by generating revenue for the local government and reduce costs for farmers. The positive public perception of having a public composting program is yet another positive impact.

Figure 9



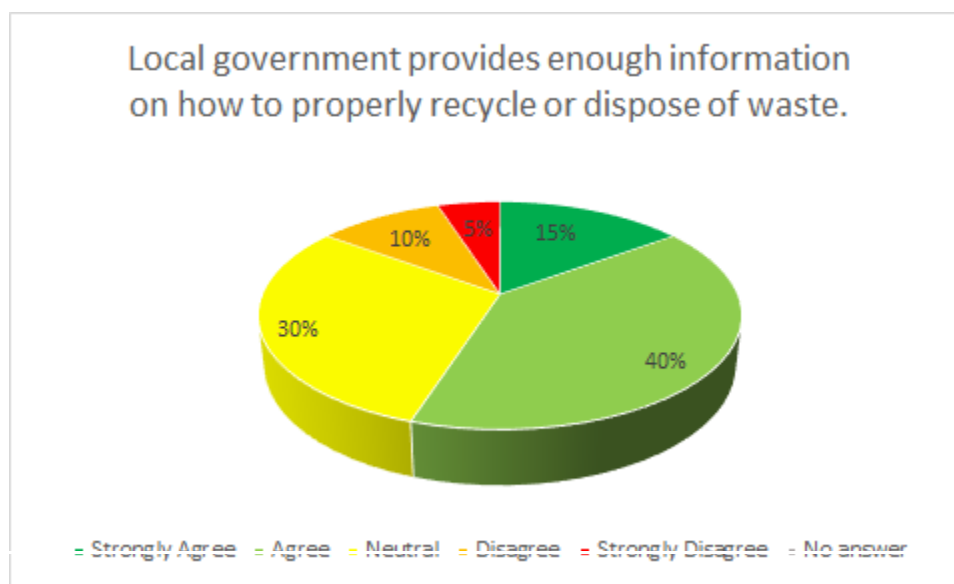
Local Government Providing Information on Recycling and Waste Disposal

Ample progress has been made by many local governments across the United States to develop and implement sustainable practices such as recycling programs. Unfortunately, one of the greatest challenges to these developments is to adequately provide residents with the proper information for them of these programs. The perception of inadequate information for citizens is a problem that Brown County also faces which caused confusion among participants of both the listening session and survey.

The communication problems go beyond residential recycling as indicated at the listening session. Participants brought up important points regarding waste management and industrial waste. Some of the most notable issues brought up by attendees of the meeting included: the need for more organic and green businesses, educating consumers on how to recycle and the dollar value of recycling certain items, banning single use plastic and Styrofoam, and pollution accountability. Based on the issues brought up by concerned residents at the meeting, it indicates that Brown County citizens want more access to information on current sustainable practices and policy. It should be noted that local control is stymied in some of the aforementioned issues. State law currently pre-empts any local ordinance that would seek to ban single use plastics, such as plastic bags.

Even though many citizens that attended the Brown County hearing addressed their desire to be provided more information on current sustainable practices and policy, the survey showed mixed results. A slight majority of 55% either strongly agreed or agreed that there is enough information provided by local government on how to properly recycle and dispose of waste, 30% were neutral, 10% disagreed, and 5% strongly disagreed (Figure 10). One individual explained that "Recycling requirements continually change and it is not always easy to know what to recycle". Ultimately, the survey results show that there is still room for improvement in waste management education for the public in Brown County.

Figure 10



Food Systems

Overview

While interest in buying locally sourced food grows, the availability for this opportunity is incredibly low. During the listening session, participants voiced concerns over the lack of availability of local food sources and the necessity of supporting existing small family grocers and farmers. More so, having easier access to these local sources. This easier access can be accomplished from establishing co-ops in the area, “yardening” incentives for those who are able, or increased community gardens.

Citizens also showed interest in creating a Food Policy Council for Green Bay to oversee these issues. This would lessen the burden on existing councils, involve members of the community that may be more heavily affected by this issue and generally bring in more means to provide Green Bay with healthier options. Green Bay is a very diverse and growing city, which means local food systems and availability of these systems need to grow and adapt to the changing environment.

Local Agriculture

While Green Bay’s and other municipalities’ farmers markets have grown substantially in the last few years, the opportunity for everyone to attend these markets is not always possible. Additionally, many farmers may not be able to leave their farm in order to market these products at the dates available. Citizens would like to see greater focus on supporting smaller farms and encouraging sustainability, whether by feeding corn to cows and lessening methane production or through managed grazing practices and supporting carbon dioxide sequestration. Brown

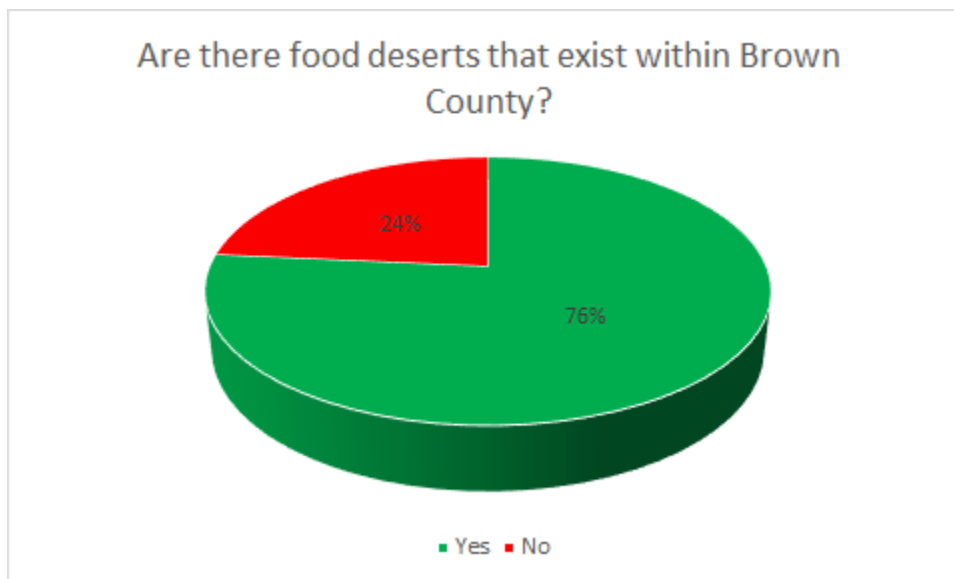
County has already made some strides through the Lower-Fox Demonstration Farms, but participants would like to see even more supports enacted.

Since small farms are not always possible in urban areas, there was ample support for “yardening” or incentivizing residents to grow and share food. Increasing community gardens may also be an option for those who do not have the resources or time to do this. For instance, one participant mentioned that some communities are planting fruit and nut trees in public spaces so everyone can utilize them.

Food Desert vs. Food Swamp

According to the results gathered from the survey, 76% of those surveyed said that there are several areas within Green Bay that can be classified as either a food desert or food swamp (Figure 10). Citizens have cited the area between Main Street and Bay Beach as a food desert, since there are plenty of food options, but limited options for healthy food choices. Furthermore, areas that are on the off ramp of a major highway only have fast food options, unless there is a gas station that provides some healthy food options. Cities like Milwaukee and Madison have many options for vegan, vegetarian and overall healthy food; although those cities are larger, there is still a large demand in Green Bay for these and people would greatly benefit from having more options available to them.

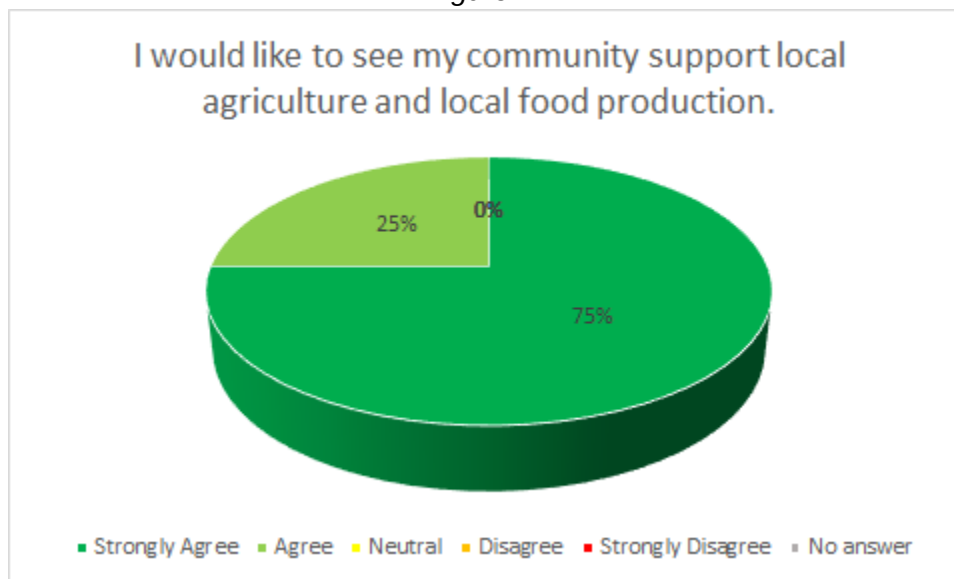
Figure 11



Citizens would like to see more local grocers and expressed an interest in seeing a co-op coming to the area, 15 out of 20 people surveyed strongly agreed that Green Bay should adopt a co-op (Figure 12). Downtown Green Bay was offered as a location as there is good access via public transportation and many people already spend a considerable amount of time downtown. Green Bay’s downtown restaurants already support several local sources, however the prices of these restaurants may limit the option of going there frequently for middle and lower income

residents. Adding a food co-op would make a more affordable option to purchase healthy, locally sourced food.

Figure 12



Conclusion

Local government should feel emboldened to create ambitious goals pertaining to clean energy, climate resiliency, public transportation, waste management, and food sustainability. Participants in both the Environmental Justice Listening Session and Environmental Justice Survey expressed great interest in these topics and desired more action from their local governments. Locally elected officials should feel safe and encouraged in any decisions to inch their municipality ever closer to climate resiliency and clean energy. Not only would steps towards more sustainable communities please constituents, but they would also save money, generate revenue, produce jobs, attract new residents, and brace the Greater Green Bay Area for the inevitable effects of climate change. Taking these steps could even save lives.

Local governments across Wisconsin have already set precedents to follow: including the City of Eau Claire, Eau Claire County, City of Monona, City of Madison, City of Green Bay, and more. The path has been set. Local governments in Brown County should understand they do not have to reinvent the wheel, and that residents have given the greenlight to go green.



Report to the
Sustainability Commission
of the City of Green Bay

MEETING DATE

October 9, 2019

PREPARED BY

AGENDA ITEM # E.3.

Update from members on goals and activities.

BACKGROUND

RECOMMENDATION

FISCAL IMPACT

ATTACHMENTS

None