

Energy Issues in Michigan Local Governments: Data from the Fall 2019 Michigan Local Energy Survey (MiLES)

Prepared for the Office of Climate and Energy

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Background

This report presents the opinions of Michigan's local government leaders regarding a variety of energy and environmental issues, and how this information might inform the Office of Climate and Energy's programming as it relates to community energy management. Topics include the regulation and siting of energy infrastructure on public and private property in local jurisdictions, governments' engagement with citizens and businesses on energy issues, planning and/or zoning policies regarding energy such as utility-scale wind and solar, local electric vehicle (EV) policies, local renewable energy goals or requirements, energy use in public and private buildings and the use of audits, opinions on the Michigan Uniform Energy Code and code enforcement, local government collaboration on energy and sustainability policies, and local leaders' views on climate change.

The report examines opinions and experiences of jurisdictions statewide and breaks out the data for three key groups:

- 1) in Michigan's Upper Peninsula (UP), and
- 2) "at-risk" jurisdictions, from low-income,¹ Rising Tide, or coal plant closure communities²— which are eligible for the Office of Climate and Energy's Community Energy Management program;³ and
- 3) Michigan Green Communities (MGC) participants.⁴

These findings are based on statewide surveys of local government leaders in the Fall 2019 Michigan Local Energy Survey (MiLES), with questions developed specifically to help inform the Office of Climate and Energy.

The Michigan Local Energy Survey (MiLES) is a census survey of all 1,856 general purpose local governments in Michigan conducted by the Center for Local, State, and Urban Policy (CLOSUP) at the University of Michigan. More information about the MiLES, including a copy of the questionnaire, is available online at: <http://closup.umich.edu/miles/fall-2019.php>. More details about the MiLES are included in a methodology section at the end of this report.

¹ Low-income is defined as median household income less than \$38,000

² The "at-risk" category and the "Upper Peninsula jurisdictions" category are not mutually exclusive. Low income, Rising Tide, or Coal Plant closure jurisdictions in the Upper Peninsula are included in both categories. The "at-risk" category only includes cities, townships, and villages, while other categories also include counties.

³ https://www.michigan.gov/energy/0,4580,7-364-85455_85516_85523---,00.html

⁴ <https://migreencommunities.com>

Key Findings

Following are the top-line findings from the Fall 2019 MiLES survey, highlighting where local officials in the UP, at-risk communities, and MGC participants differ from statewide results. More in-depth analysis and figures are provided starting on page 9. Tables for all survey questions discussed in this report are provided in an appendix starting on page 47.

- When it comes to basic relevance of energy policies for Michigan local governments, a majority of local officials say regulating placement of energy infrastructure on private property and improving energy efficiency for local businesses or residents are somewhat or very relevant to their jurisdiction. Almost half say siting energy infrastructure on public property and reducing jurisdiction government's use of fossil fuels are somewhat or very relevant. However, four in ten say planning for Electric Vehicles (EVs) is *not at all* relevant.
 - Each issue above is less likely to be relevant to officials in UP jurisdictions. However, almost half of officials in the UP do say energy efficiency for local businesses or residents and regulating placement of energy infrastructure on private property are somewhat or very relevant.
- When it comes to energy policy adoption, statewide, 70% of Michigan jurisdictions report having at least *considered* plans or policies regarding energy issues.
 - Fewer jurisdictions statewide report having developed local policies, and fewer still say they have implemented those policies. However, over half of Michigan local governments have implemented plans or policies regarding energy issues at least a little.
 - UP jurisdictions are more likely to report not having considered these kinds of local policies at all.
- Jurisdictions that plan and/or zone would be interested in a range of resources related to planning and/or zoning for energy. More than half say they would be likely to take advantage of sample zoning ordinances, while almost half would be likely to take advantage of templates for including energy in their Master Plan.
 - More than four in ten at-risk jurisdictions that plan and/or zone would be likely to take advantage of matching funds for hiring consultants or staff.
 - Officials from UP and at-risk jurisdictions have greater interest in planning/zoning resources, with a smaller percentage saying they would *not* take advantage of any resources compared to other officials statewide.
- Few Michigan local governments report collecting data about energy use in either public or private buildings, either on a voluntary or mandatory basis.
 - At-risk jurisdictions are more likely to collect data on public buildings.
 - Where data is collected, it is primarily used either to evaluate cost savings of energy improvements or to prioritize upgrades/spending.
- About 4 in 10 Michigan local governments statewide have had energy audits conducted for at least one type of government facility. These most commonly target the jurisdiction hall or county administration building.
 - At-risk jurisdictions are slightly more likely to have energy audits conducted in their jurisdiction facilities, along with almost 90% of MGC participants.

- Among jurisdictions that have not had audits conducted on any government facilities, more than half say such audits are not a priority for the jurisdiction, while about one in five say they have insufficient funding.
- Approximately 30% of Michigan local governments have not at least considered energy issues. These jurisdictions cite a number of barriers to considering energy issues. About two-thirds of these jurisdictions say that important barriers to addressing energy issues locally include: lack of expertise to develop policies, costs associated with developing energy policies, and having other priorities that are more pressing. Additionally, about half say that lack of interest among residents and lack of interest among local officials are barriers.
 - Among UP jurisdictions that haven't considered energy issues, three-quarters say lack of expertise is a barrier.
 - Among at-risk jurisdictions that haven't considered energy issues, more than half say the costs associated with developing policies are a *significant* barrier.
 - Only one in ten jurisdictions that have not at least considered energy issues previously say they are likely to begin looking at energy within the next 12 months.
- When it comes to intergovernmental collaboration, almost 4 in 10 Michigan local governments are currently collaborating with other local governments on recycling issues, although fewer report intergovernmental collaboration on other energy and sustainability issues.
 - Despite relatively low levels of current intergovernmental collaboration on energy and sustainability issues, local government officials express considerable interest in pursuing these opportunities, particularly for green purchasing programs, recycling, and non-motorized or public transportation.
 - At-risk jurisdictions are more likely to express interest in these types of collaboration, including more than half who are interested in collaborating on green purchasing programs.
 - UP jurisdictions are generally less likely to report current collaboration on these issues.
- When it comes to climate change, about one-quarter of Michigan local officials say it is a very serious problem, while another quarter say it is a somewhat serious problem.
 - When it comes to responsibility for addressing climate change, about half of local officials say the federal government has a great deal of responsibility for taking action, while about one-third say the state government has a great deal of responsibility. Although fewer local officials say local governments have a great deal of responsibility, two-thirds say local governments have at least some responsibility.

Overall Recommendations

These key findings from the MiLES surveys suggest the following:

Meet communities where they are.

Throughout the state, communities are approaching a transition to clean energy at vastly different speeds. On the one end, roughly 12% of communities say they have extensively considered plans or policies regarding energy issues and most—though not all—of those have begun implementation of plans or policies. On the other end of the spectrum, 10% of communities in the state say they do not believe any aspect of energy policy—from zoning for energy infrastructure on private property, to siting energy infrastructure on public property, to helping residents and local businesses improve energy efficiency—is a relevant role for their local government to play. In between these two extremes are communities who have given some (58%) or no (19%) consideration to energy issues. A transition to clean energy, though, is likely to affect—and be most successful if addressed by—all communities in the state. Recognizing that they are starting at different places, have different capabilities and reasons to act, and are in need of different types of resources will be crucial to ensuring that all of these communities are part of the energy transition. This suggests that EGLE provide a range of programs, both for those in advanced stages of policy making (see Recommendations Specific to Michigan Green Communities Participants) to those just realizing the need to set policies related to clean energy.

Focus on increasing planning & zoning for renewables.

Of the local clean energy policies covered in the survey, regulating placement of energy infrastructure on private property—land use zoning—is seen by local officials as the most relevant activity for local governments. The Michigan Zoning Database, developed in conjunction with the survey, finds that 37% of the state’s zoning ordinances have no mention of energy. Further, among those that have zoned for energy, 53% have only considered wind energy, though the clean energy market in Michigan is swiftly shifting toward solar energy. Furthermore, less than 1% of Michigan’s zoning ordinances mention electric vehicles, and none contemplate energy storage. This lack of energy content is problematic since Michigan’s zoning is permissive, meaning that only those land uses expressly permitted are considered to be lawful. According to the survey, over half (54%) of the communities in Michigan with zoning responsibilities would avail themselves of sample zoning ordinances, another 45% are interested in templates to incorporate energy in Master Plans, and 38% are interested in workshops or training. This suggests a continued need to expand the planning and zoning resources available on EGLE’s website, and continuing to partner with Michigan Association of Planning and MSU Extension to provide training on planning and zoning for clean energy.

Provide more information about EVs so local officials have a basis to act.

The survey data shows that many local officials have questions about the need for electric vehicle infrastructure; 48% of jurisdictions statewide indicated that they are unsure whether or not their community has a sufficient number of publicly accessible charging stations. It is unsurprising, then, that very few (1%) have set policies related to EVs. Further, it is striking that most of the policies that communities are setting have to do with private cars or trucks, rather than municipal or commercial fleets. This suggests local officials need more information about the changing market and demand for EVs, relevant utility policies, and what their local governments can do to both prepare for the growth of electric vehicles, and also be prepared to transition their own fleets.

Support local community engagement efforts.

Among the jurisdictions in the state that have given the least amount of attention to energy issues, 50% report that a lack of interest from residents presents a barrier to pursuing energy policy. Further, community engagement is limited even among jurisdictions who are more active within the energy space; only 17% of local officials statewide say that their local government engages with residents or local businesses on energy issues at least a few times a year. Both of these data points suggest a need for increased community-member engagement, as local governments will be more likely to pursue the issues that their constituents are interested in, and action among community members will be needed to achieve state and local energy policy goals. Local officials say that increased funding for community engagement and newsletter or social media post templates are the most valuable resources for them to increase engagement with their constituents. Encouraging community engagement through electric utilities, non-profits, and other groups—particularly where the local government has done little to engage on energy issues—may also be appropriate.

Use peer-to-peer sharing to convey the opportunity for low-cost municipal action.

The Spring 2019 MPPS survey, funded in part by EGLE, found that addressing energy efficiency in local government buildings was the most common clean energy action being undertaken by local governments. The more in-depth data from the Fall survey, however, show there is still significant opportunity for communities to address relatively low-cost community energy management actions such as benchmarking buildings and conducting energy audits. Just 15% of local governments say they collect data on energy use in public buildings. Furthermore, fewer than half of the jurisdictions in the state have conducted audits on their city/township/village hall, and even fewer have done audits on water or wastewater treatment facilities, facilities where energy savings may be even more substantial. While the majority of those who have not undertaken audits say that it is because it is not a priority of their jurisdiction, this may be because of a perception that these audits are costly or do not pay for themselves. Indeed, the second most common reason cited for not conducting audits is insufficient funding to conduct audits. Given that there is a sizeable pool of communities that have already taken these first steps in community energy management, there may be opportunities for peer-to-peer sharing among local government leaders about actions or approaches that have been low- or no-cost, or had quick payback periods. This could be done through webinars with local officials could connect with similar efforts within the State, particularly through DTMB, to encourage peer-to-peer sharing of information on energy management.

Recommendations specific to Upper Peninsula communities

Provide technical assistance, particularly on community engagement and planning/zoning.

Local officials in the UP rate clean energy topics as less relevant for their jurisdictions than those officials in other parts of the state, and are the least likely to have already taken local action on energy policy. The key barrier to action, though, appears to be technical capacity, with a majority citing lack of staff expertise as a barrier to local clean energy action. Officials in the UP say they would take advantage of templates and other technical resources developed to help them engage in planning and zoning for clean energy, and many are also interested in resources to help them with community engagement efforts—the two key areas where UP officials believe it is the most relevant role for their local governments to play. As a result, continuing to earmark technical assistance for these communities seems warranted. The UP may also be fertile ground for helping to establish intergovernmental collaboration, with a full third of UP local officials saying they would be interested in shared staff for energy policies, and an even greater percentage were interested in collaboration on recycling programs and green purchasing programs.

Discuss economic or environmental benefits, but avoid “climate change.”

As noted in the white paper summarizing findings from previous MPPS surveys, while a large majority of local officials believe “environmental sustainability” and “being green” are important aspects of local government leaders, “climate change” resonates with fewer local officials. This is particularly the case in the UP where more local officials say climate change is “not a problem at all” than say it is a “very serious problem.” As a result, approaching clean energy from a climate lens is likely to suppress rather than spur action by local officials in the UP.

Recommendations specific to At-Risk (low income, coal plant closure, or Project Rising Tide) Communities

Address the gap in technical and economic resources.

Similar to the UP, at-risk communities face significant challenges when it comes to addressing energy policies. While showing more interest in local clean energy policy than most other jurisdictions in the state, fewer at-risk communities have developed or enacted plans or policies regarding energy issues, citing a lack of expertise (55%) and the costliness of policymaking (53%) as significant barriers. Like officials in the UP, local leaders in at-risk communities are eager to take advantage of resources to help advance their clean energy policy making, including grants that require matching funds to hire technical experts. Continuing to earmark technical assistance for these communities seems warranted. There may also be an opportunity to provide or coordinate shared resources to assist at-risk communities, as there is relatively high interest to consider shared staffing for energy issues (39%) and green purchasing (54%).

Recommendations specific to Michigan Green Communities Participants

Support their efforts to move beyond energy efficiency.

To date, roughly 3% of Michigan local governments have participated in the Michigan Green Communities program. It is perhaps unsurprising that these communities have undertaken substantially more clean energy actions than other communities in the state: for example, 90% of MGC participants report having conducted energy audits on public buildings, compared to 40% of local governments statewide. Furthermore, MGC participants are significantly more likely to have goals or requirements to offset energy usage, and over half have considered developing renewables on public land. Even so, local officials who have participated in MGC are still eager for additional technical assistance from the state. This includes templates and training for engaging community members, and on planning and zoning for energy. Indeed, over half (59%) of MGC participants say they are likely to alter their approach to planning or zoning on energy issues within the next 12 months—nearly double the rate of Michigan local governments as a whole.

Draw on their expertise and pool resources.

Not all of the barriers that Michigan Green Communities encounter require external technical expertise. Indeed, some of the barriers are a lack of human capital. Even among MGC participants, only 10% have staff whose sole job responsibility is energy-related issues. Most (51%) have a staff member who is assigned to other job responsibilities and/or use external consultants (27%). Even so, 62% say they don't currently share clean energy staff with other local governments, but would be interested in collaboration. Helping to fund or facilitate shared positions—perhaps for communities throughout a county—provides an interesting opportunity to allow for win-wins across the spectrum of community energy management. Shared energy staff would allow MGC and other leading communities to expand their human resources with specialized staff, and would also allow for a more direct connection to neighboring communities who may be just starting with community energy management.

Table of contents

I. Relevance of energy issues in local jurisdictions	9-10
II. Local government action on energy policies	11
III. Staff [and other actors] responsible for energy issues.....	12
IV. Engagement with residents on energy issues.....	13-15
V. Planning and Zoning on Energy Issues.....	16-18
VI. Renewable Energy Goals or Requirements	19-21
VII. Solar Panels on Public Buildings.....	22
VIII. Collecting data about energy use in public and private buildings	23-24
IX. Energy Audits on community facilities	25-26
X. Energy Codes in residential and commercial construction	27-29
XI. Barriers to developing energy policies.....	30-31
XII. Future consideration of energy issues among those not currently addressing energy	32-34
XIII. Electric Vehicles (EVs)	35-36
XIV. Intergovernmental collaboration on energy issues.....	37-38
XV. Attitudes regarding Climate Change.....	39-44
XVI. Methodology.....	45
XVII. Appendices	46-97

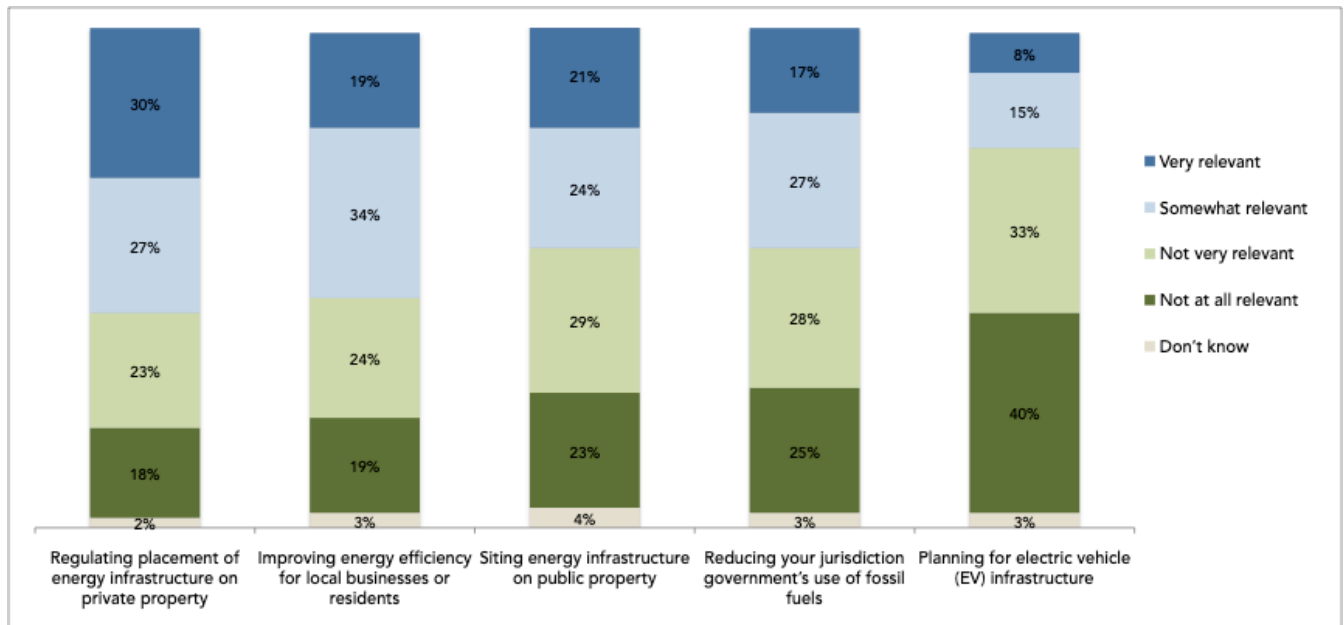
Relevance of energy issues in local jurisdictions

The MiLES survey first asked local officials about the relevance to their jurisdiction’s government of five specific energy issues. A majority of Michigan local officials say regulating placement of energy infrastructure on private property (57%) and improving energy efficiency for local businesses or residents (53%) are somewhat or very relevant to their jurisdiction. Additionally, 45% of officials say siting energy infrastructure on public property is somewhat or very relevant, while 44% say the same for reducing their jurisdiction government’s use of fossil fuels.

Meanwhile, 40% of local officials say planning for electric vehicle (EV) infrastructure is not at all relevant, significantly higher than for any of the other energy topics, while 23% of jurisdictions say it is somewhat or very relevant.

When looking across all five energy issues, only 10% of local officials statewide say *none* of these issues are at all relevant to their jurisdiction.

Figure 1: Percent of jurisdictions assessing local relevance of various energy issues



Predictably, each issue is most likely to be somewhat or very relevant for Michigan Green Communities (MGC) participants. For MGC participants, 93% say reducing fossil fuel use is somewhat or very relevant and 91% say siting energy infrastructure on public property is somewhat or very relevant (see [Table A-1](#)). Although statewide just 23% of jurisdictions say planning for EV infrastructure is somewhat or very relevant, 88% of MGC participants say it is somewhat or very relevant in their jurisdictions. In addition, the placement of energy infrastructure on private property is somewhat or very relevant for 72% of MGC participant jurisdictions.

By contrast, each issue is less likely to be somewhat or very relevant for Upper Peninsula (UP) jurisdictions. The energy issues most likely to be somewhat or very relevant to UP jurisdictions are energy efficiency for local businesses or residents (49%) and regulating placement of energy

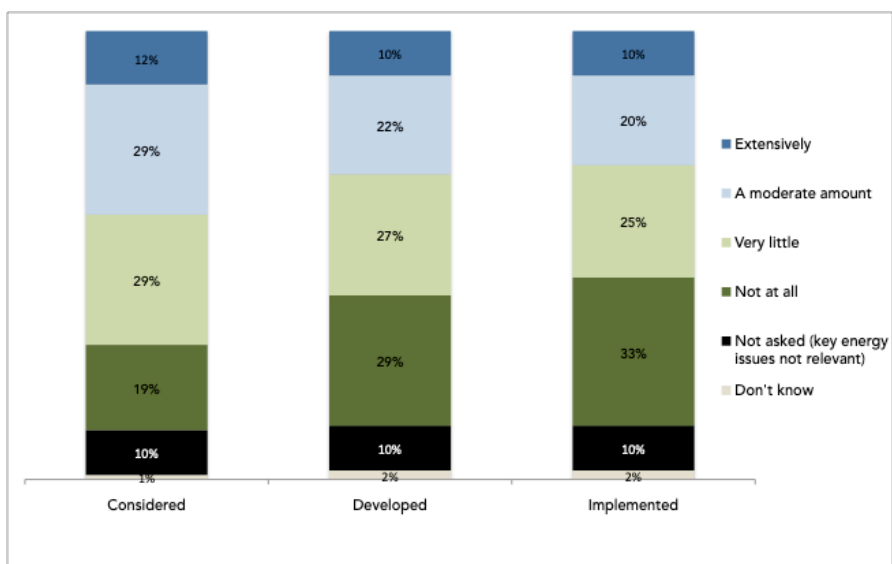
infrastructure on private property (47%). Siting energy infrastructure on public property is significantly less likely to be relevant to UP jurisdiction governments (34%) compared to statewide (45%).

Among at-risk (low income, Rising Tide, or coal plant closure) communities, 62% of local officials say energy efficiency for local businesses or residents is somewhat or very relevant for their jurisdiction's government, higher than the 53% statewide. A majority of local officials from at-risk jurisdictions (53%) also say siting energy infrastructure on public property is somewhat or very relevant, compared to 45% statewide. Regulating placement of energy infrastructure on private property is somewhat less commonly relevant (49%) compared to statewide (57%).

Local government action on energy policies: consideration, development, enactment

The MiLES survey next asked those local officials from places where energy issues are seen as relevant to the jurisdiction's government whether their local governments are currently taking any policy action. Overall, 70% of Michigan jurisdictions report having at least *considered* various plans or policies regarding energy issues at all, including 41% who have considered them a moderate amount (29%) or extensively (12%). Meanwhile, another 19% say energy issues are at least slightly relevant to their jurisdiction but their jurisdiction has not considered any plans or policies regarding energy issues.

Figure 2: Percent of jurisdictions that report considering, developing, and/or implementing any plans and/or policies regarding energy issues



Looking among officials from at-risk jurisdictions (see [Table A-2](#)), they are only somewhat less likely to report their jurisdictions have at least considered energy plans or policies a moderate amount (27%) or extensively (9%). UP jurisdictions are also less likely to report considering energy plans or policies a moderate amount (25%) or extensively (5%), and are more likely to say they have not considered plans or policies at all (24% compared to 19% statewide).

Beyond simple consideration by the jurisdiction, though, communities start to drop off. When it comes to actually *developing* policy, fewer jurisdictions statewide report having developed policies (58% at least very little). And fewer still have *implemented* those policies (53% at least very little).

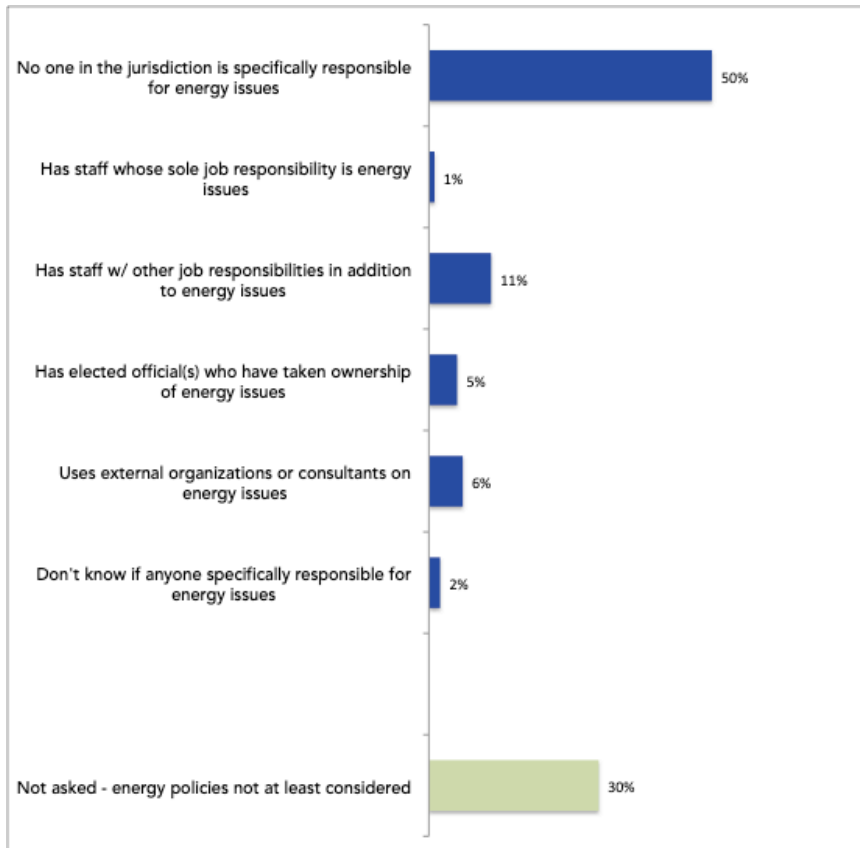
Jurisdictions in the Upper Peninsula are less likely to say they have developed (48%) and/or implemented (45%) specific energy plans or policies at all (see [Table A-3](#) and [Table A-4](#)). At-risk communities are slightly more in line with the rest of the state, with 53% reporting development of energy policies and 49% enactment of such policies. Meanwhile, approximately a quarter (23%) of Michigan Green Communities (MGC) participants report *extensive* development of energy plans or policies and 20% of those have enacted them extensively.

Staff (and other actors) responsible for energy issues

Most Michigan local governments do not have anyone specifically responsible for addressing energy issues. This is either because energy issues have not been considered, developed, and/or implemented (30%) by the jurisdiction or because, even though they have at least considered energy issues, no one in the jurisdiction is specifically responsible for these issues (50%).

However, statewide, 11% of jurisdictions do report having staff who have other job responsibilities but are responsible for addressing energy as well, and a small handful (1%) say they have staff whose sole job responsibility is energy issues; this rises to 61% among MGC participants (see [Table A-5](#)). Meanwhile, 5% say they have elected officials who have taken ownership of energy issues, and 6% of jurisdictions statewide use external organizations or consultants on energy issues, including 27% of MGC jurisdictions.

Figure 3: Percent of jurisdictions with someone specifically responsible for addressing energy issues

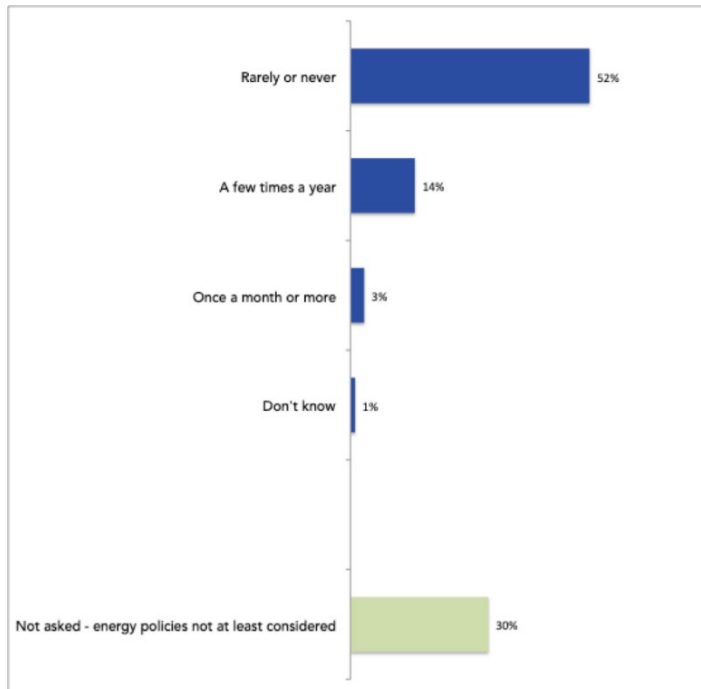


When combining these categories, just under one in five (19%) of Michigan local officials say their jurisdiction has someone specifically responsible for addressing energy issues, including elected leaders or external organizations/consultants. At-risk jurisdictions are slightly more likely to say they have someone responsible for addressing energy issues (22%), while UP jurisdictions are less likely (14%). Among MGC communities, 70% report having someone responsible for addressing energy issues.

Engagement with residents on energy issues

When it comes to engaging with residents on energy issues (i.e., through public events, mailers, email newsletters, on social media, etc.), most Michigan jurisdictions say they engage with residents only rarely or do not engage at all. Statewide, 17% of local officials say their jurisdiction engages with residents on energy issues at least a few times a year, including just 3% who say they engage once a month or more.

Figure 4: Percent of jurisdictions that engage with residents on energy issues



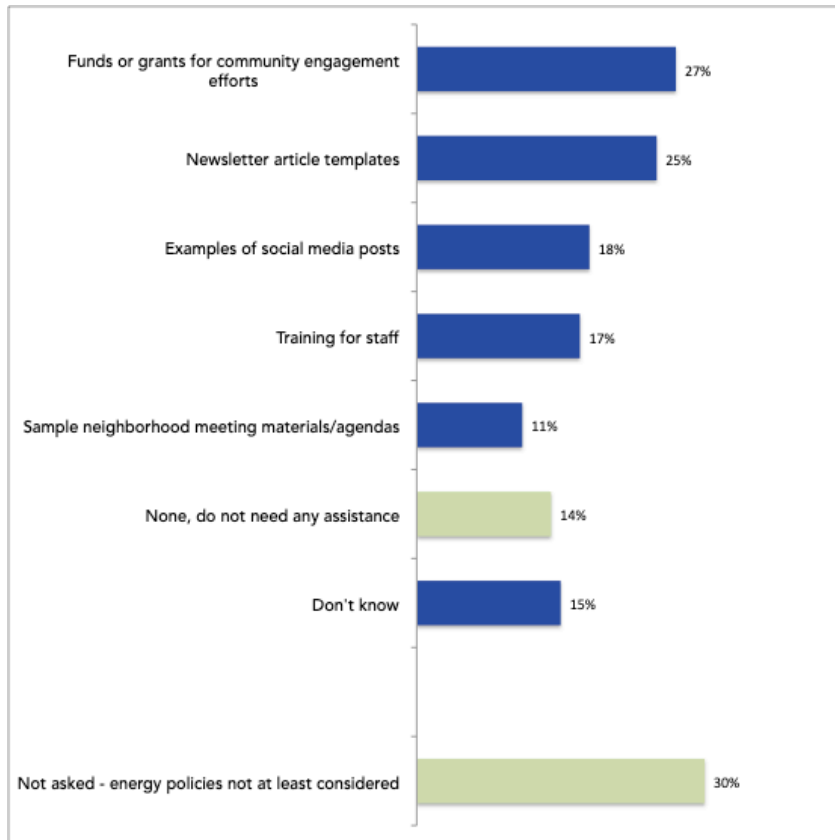
Officials from at-risk jurisdictions engage with citizens at similar levels to the rest of the state, while UP jurisdictions are somewhat less likely to report engaging with residents on energy issues, where 12% say they engage with residents at least a few times a year (see [Table A-6](#)). MGC participants are much more likely to engage with residents at least a few times a year (58%), including 22% who engage with residents at least once per month. For descriptions of the ways local governments interact with their residents on energy, see [Appendix B](#).

Examples of ways Michigan local officials say they interact with their residents on energy:

- “At township meetings. Effective for the limited few who are there.”
- “Depends on topic (some more than others), but includes press releases, community meetings, news media, face to face interactions, infographics and social media sharing.”
- “... we have been doing more work with the creation of an environmental council and social media communications and are currently planning a big community effort for earth day in 2020.”
- “Invite them to public meetings for discussions, invite them to public presentations, classes on saving energy at local libraries and we will be starting a newsletter soon!”
- “We had an entire successful Department for Weatherization and Energy reduction that worked directly with community members, but the funding was eliminated.”
- “Village has sponsored onsite engagement meetings between residents and vendors who provide energy efficiency programs to small business and residential properties.”

Even though most local governments engage with residents on energy issues rarely, if ever, most local officials say additional resources to assist their jurisdiction with resident engagement would be valuable. The top of the list includes funds or grants for community engagement efforts (27%) and newsletter article templates (25%). Among at-risk jurisdictions there is higher demand for every resource listed (see [Table A-7](#)), including examples of social media posts (27%) and training for staff (25%). UP jurisdictions are more similar to the rest of the state in terms of what resources they would find valuable for engagement, while a majority of MGC participants would find most resources valuable, and 98% would find at least one resource valuable.

Figure 5: Percent of jurisdictions that would find resources valuable to assist with engagement



Jurisdictions that currently engage with their residents “a few times a year” are more likely to say that these types of resources would be valuable compared to either jurisdictions that engage more often (at least monthly) or jurisdictions that engage rarely or not at all. Only 11% of jurisdictions that engage with residents a few times a year say they do not need any assistance.

Statewide, 23% of jurisdictions that currently engage rarely or not at all say they do not need any assistance, and another 23% are unsure. However, they are more likely than jurisdictions which engage more frequently to say that newsletter article templates (33%), funds or grants for community efforts (27%), examples of social media posts (22%), and training for staff (21%) would be valuable. This suggests that many of these jurisdictions would be interested in engaging with their residents to a greater extent if they had the resources.

Planning and zoning on energy issues

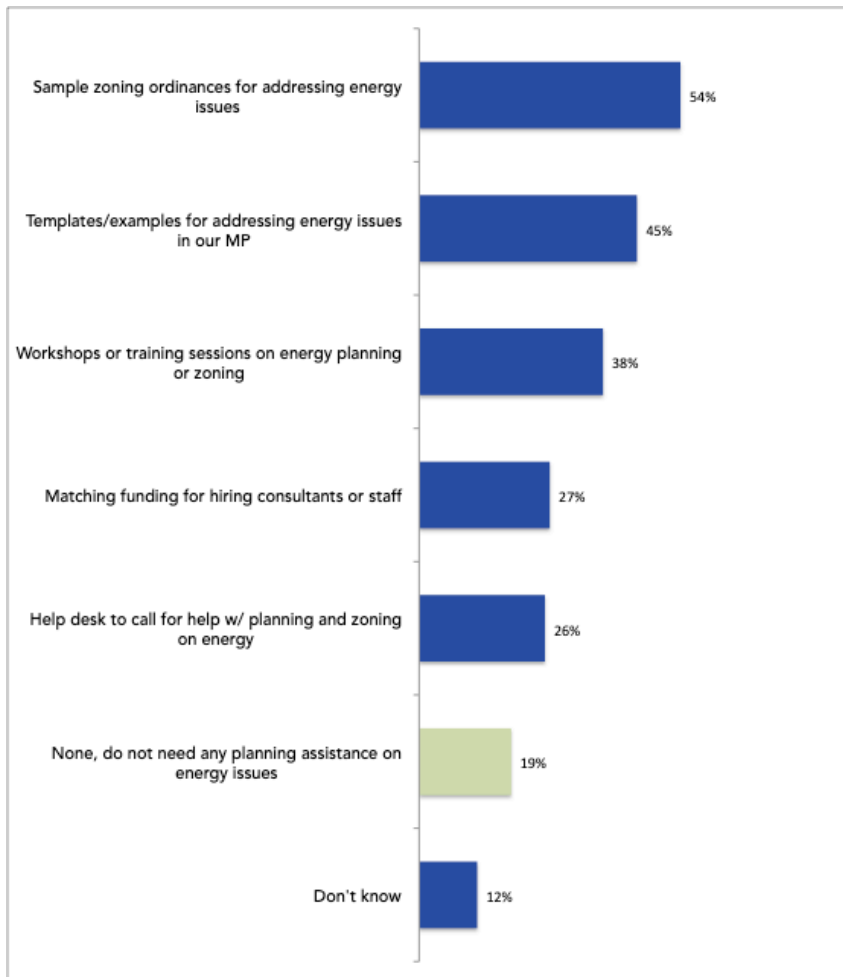
Even among jurisdictions that have at least considered energy plans or policies, some are limited in the types of plans or policies they could enact because they do not plan or zone for themselves.

The EGLE grant which funded this survey and report also funded an effort to compile a comprehensive database of zoning ordinances across the state. That database includes both information about which level of government is responsible for zoning, and whether their current ordinances include content on energy. Overall, of the state's 1,856 local governments, at least 1,302 engage in zoning. This includes 21 counties that zone for some townships and villages. (Zoning authority is unknown for 119 jurisdictions and 145 jurisdictions are completely unzoned).

Only around half of these jurisdictions consider clean energy infrastructure within their zoning ordinances. Wind energy development has been considered far more often than solar energy development, largely because wind projects have been under construction in the state far longer than solar projects. Currently, only 30 jurisdictions consider electric vehicle infrastructure in their zoning ordinance.

Looking back at responses to the MiLES survey, among those local officials from jurisdictions that both 1) report planning and/or zoning for themselves and 2) say they have at least considered any energy issues, many express interest in a variety of resources to assist with planning on energy issues. More than half (54%) of such jurisdictions say they would be likely to take advantage of sample zoning ordinances for addressing energy issues, and 45% say they would be likely to take advantage of templates/examples for addressing energy issues in their Master Plan. Many jurisdictions also express interest in workshops or training sessions on energy planning and zoning (38%), matching funding for hiring consultants or staff (27%), and a "help desk" to call for help with planning and zoning on energy issues (26%). Just 19% say they did not need any planning assistance on energy issues.

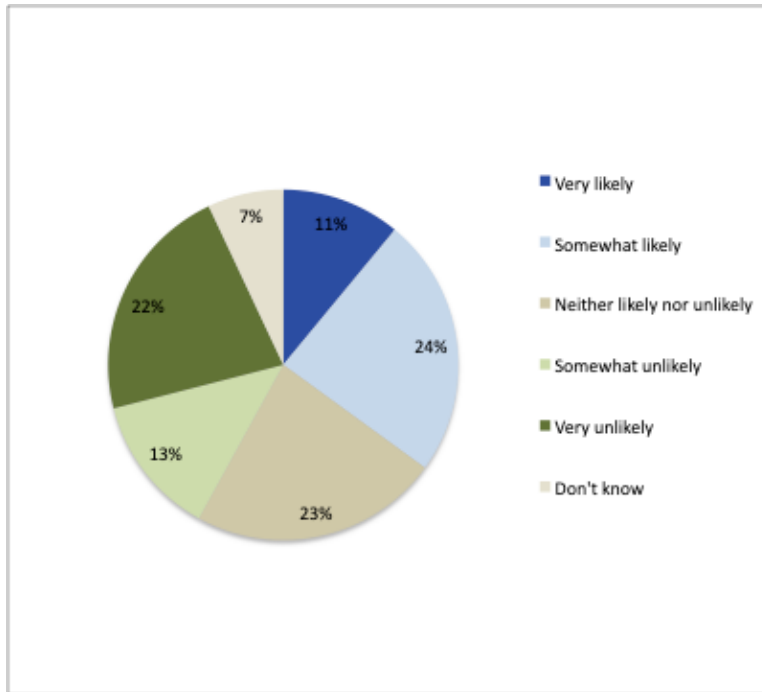
Figure 6: Percent of jurisdictions likely to take advantage of resources that address planning and/or zoning for energy issues, among those that plan and/or zone and also have considered energy issues



Officials from at-risk and UP jurisdictions are somewhat less likely to say their jurisdiction does not need any assistance (see [Table A-8](#)). Additionally, officials from at-risk jurisdictions are more likely to say they would be interested in each of the resources. In particular, they are much more likely to be interested in matching funding for hiring consultants or staff (42%) compared to other jurisdictions.

Looking ahead, officials from 35% of jurisdictions that plan and/or zone for themselves say their jurisdiction is somewhat (24%) or very (11%) likely to alter its approach to planning and/or zoning regarding energy issues within the next 12 months. Officials from at-risk jurisdictions (45%) and MGC participants (59%) are more likely to say they are somewhat or very likely to alter their approach in the next year (see [Table A-9](#)).

Figure 7: Likelihood jurisdictions will alter their approach to planning and/or zoning on energy issues within next 12 months, among those that plan and/or zone and also have considered energy issues



For descriptions of the ways jurisdictions are likely to alter their approach to planning and/or zoning on energy issues within the next 12 months, see [Appendix C](#).

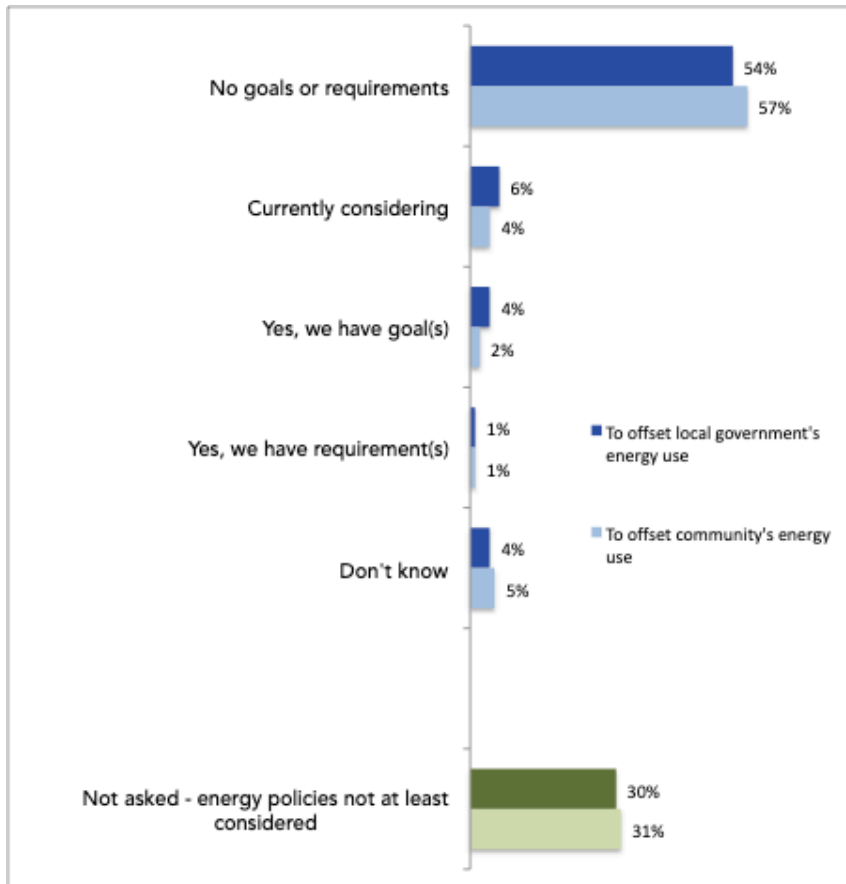
Examples of ways Michigan local officials say their jurisdiction’s approach to planning and/or zoning for energy will change:

- “Adding a zoning amendment addressing rooftop solar systems and other solar systems.”
- “Township is not currently zoned. We are pursuing incorporating zoning into our township and it is being driven primarily by concerns for regulation of energy projects.”
- “Changes to the City’s Master plan may need to be made, in addition the City will need to make sure that it is in compliance to encourage the development of the Consumers Energy Smart Energy district.”
- “Expect to see more demand for agriculture solar panels.”
- “The City is currently looking at updating many ordinance issues that relate to size of buildings and adding language regarding energy and water efficiency.”
- “The Village will be updating the 20 year old Zoning Ordinance and including current issues such as energy efficiency. We would appreciate any funding sources to help us be more energy efficient and embrace energy saving technology.”

Renewable energy goals or requirements

Few Michigan local governments have renewable energy goals or requirements to offset energy use by either the jurisdiction’s government or their community at large. When it comes to offsetting *government* energy use, just 5% of all jurisdictions statewide say they currently have such goals or requirements, while another 6% are currently considering such goals or requirements. Even fewer Michigan jurisdictions say they have or are currently considering renewable energy goals or requirements to offset energy use *by their entire community*. Statewide, 3% of jurisdictions have such goals or requirements, while another 4% are currently considering this issue.

Figure 8: Percent of jurisdictions with any renewable energy goals or requirements to offset government’s or community’s energy use

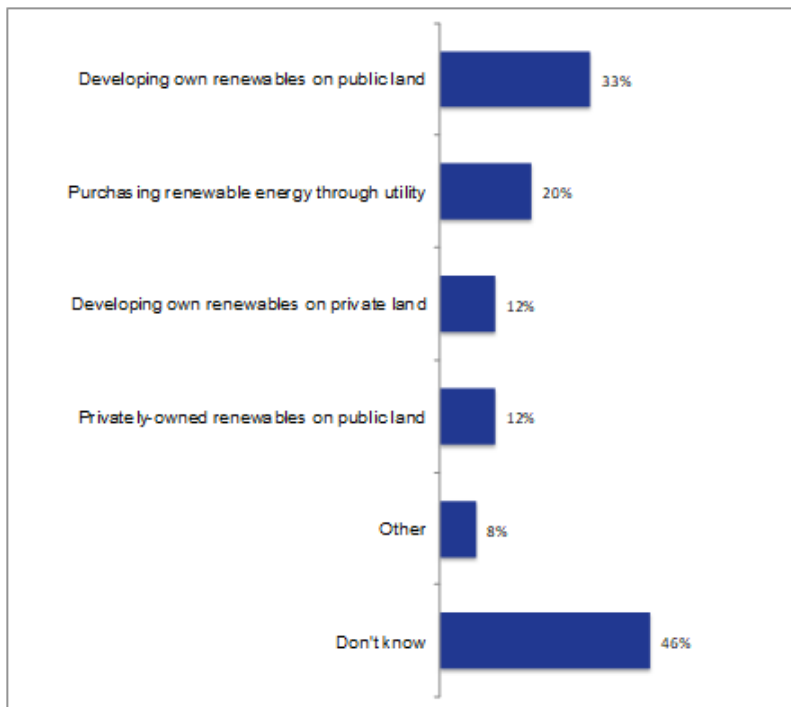


At-risk jurisdictions are more likely to say they have (8%) or are considering (11%) renewable energy goals/requirements to offset their *government’s* energy use compared to other jurisdictions statewide (see [Table A-10](#)). Among MGC participants, 71% are at least considering such goals/requirements, including 30% who current have goals (20%) or requirements (10%) in place.

When it comes to goals or requirements for offsetting *community* energy use, even fewer Michigan jurisdictions are pursuing them. Even among MGC participants, only 19% say they currently have such goals/requirements for offsetting community energy use, although another 32% are currently considering such goals/requirements (see [Table A-11](#)). And although just 4% of at-risk communities have goals/requirements for offsetting community energy use, another 10% say they are currently considering having such goals/requirements.

Among the relatively small number of jurisdictions that have or are considering such goals/requirements, around a third have considered or are developing their own renewables on public land as a strategy to meet their goals. (Keep in mind that this 33% of jurisdictions that have or are considering any renewable energy goals/requirements and who report developing renewables on public land translates into approximately 46 jurisdictions statewide). Fewer jurisdictions are considering or implementing the purchase of additional renewable energy through a utility (20%), developing their own renewables on private land (12%) or privately-owned renewables on public land (12%). Notably, almost half (46%) of local officials who say they do have goals say they don't know their jurisdiction's strategy for how to achieve it. This may be due to a gap in respondent knowledge or might indicate that—as has been observed in other communities across country—plans for implementing goals and/or requirements are not always present.

Figure 9: Percent of jurisdictions considering or implementing renewable energy strategies, among jurisdictions that have or are considering renewable energy goals / requirements



The MiLES also asked local officials what resources or state-level policy changes that the State of Michigan could offer would assist their jurisdiction in meeting its renewable energy goals or requirements. For descriptions of the resources or state-level policy changes, see [Appendix D](#).

Examples of resources or state-level policy changes that the State of Michigan could offer that local officials say would assist their jurisdictions in meeting renewable energy goals or requirements:

- “Changes to the PA 116 to allow for commercial solar arrays to be built in agricultural lands. I believe Gov. Whitmer made an administrative change but better clarity on this issue would be helpful.”
- “A multiplier table for Wind Turbines approved by the STC that has a solid basis from a good appraisal study that both the Wind Energy Companies and Townships agree on.”
- “Providing funding to help implement additional policy, studies, and projects.”
- “...changes to the way that solar is taxed at the local level all the way up to issues with PURPA law and net metering. Moreover, need policy changes that promote utilities working with cities to implement innovative strategies to reduce carbon emissions as well as policies that help us implement energy efficiency measures across our City, especially as State policy restricts us doing things beyond the state policy code.”
- “Help with writing policy and setting renewable energy goals, help with siting renewable energy projects.”

Solar panels on public buildings

One way for local governments to develop their own renewables is through placing solar panels on public lands in their community. However, their use in Michigan is currently fairly limited. Only 22% of governments in Michigan say they have at least considered placing solar panels on any types of public lands, including 13% who say they support placing solar panels on at least one type of public land.

When asked about the prospect of siting solar panels on various types of public land in their communities, the most commonly considered location is on the rooftops of public buildings. Yet even there, only 16% of jurisdictions statewide have considered the issue at all, include 9% who support this action. Statewide, 8% are considering or have considered solar on public brownfields, 7% on landfills, 4% on airports, and 13% on other public lands.

Table 1: Support for or opposition to placing solar panels in various locations on public lands

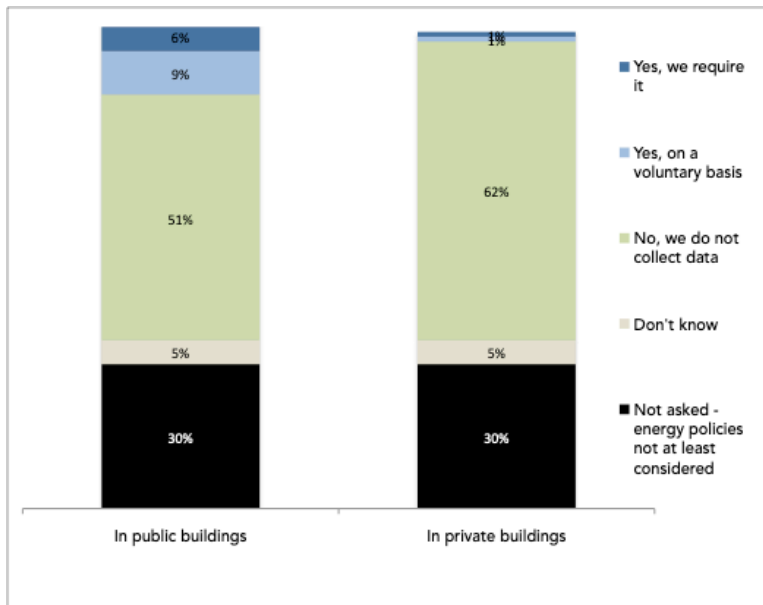
	Rooftops of public buildings	Public brownfields	Public landfills	Public airports	Other public lands
No, have not considered	44%	38%	35%	33%	45%
Currently considering	6%	3%	2%	1%	5%
Yes, and we support	9%	5%	4%	3%	7%
Yes, and we oppose	1%	0%	1%	0%	1%
Not applicable	6%	19%	25%	27%	7%
Don't know	4%	5%	4%	4%	5%
<i>Not asked - energy policies not at least considered</i>	<i>30%</i>	<i>30%</i>	<i>30%</i>	<i>30%</i>	<i>30%</i>

Among at-risk jurisdictions, 29% say they have at least considered placing solar panels on any types of public lands, and 19% support placing solar panels on at least one type of public land (see [Table A-12](#) to [Table A-16](#)). In the UP, just 18% of UP jurisdictions have considered this, and only 8% support. Among MGC participants, 77% say they have at least considered placing solar panels, and 47% support.

Collecting data about energy use in public and private buildings

Local officials from 15% of jurisdictions statewide say their government collects data about energy use in public buildings, either as a requirement (6%) or on a voluntary basis (9%), while just 2% collect it in private buildings (1% require, 1% voluntary).

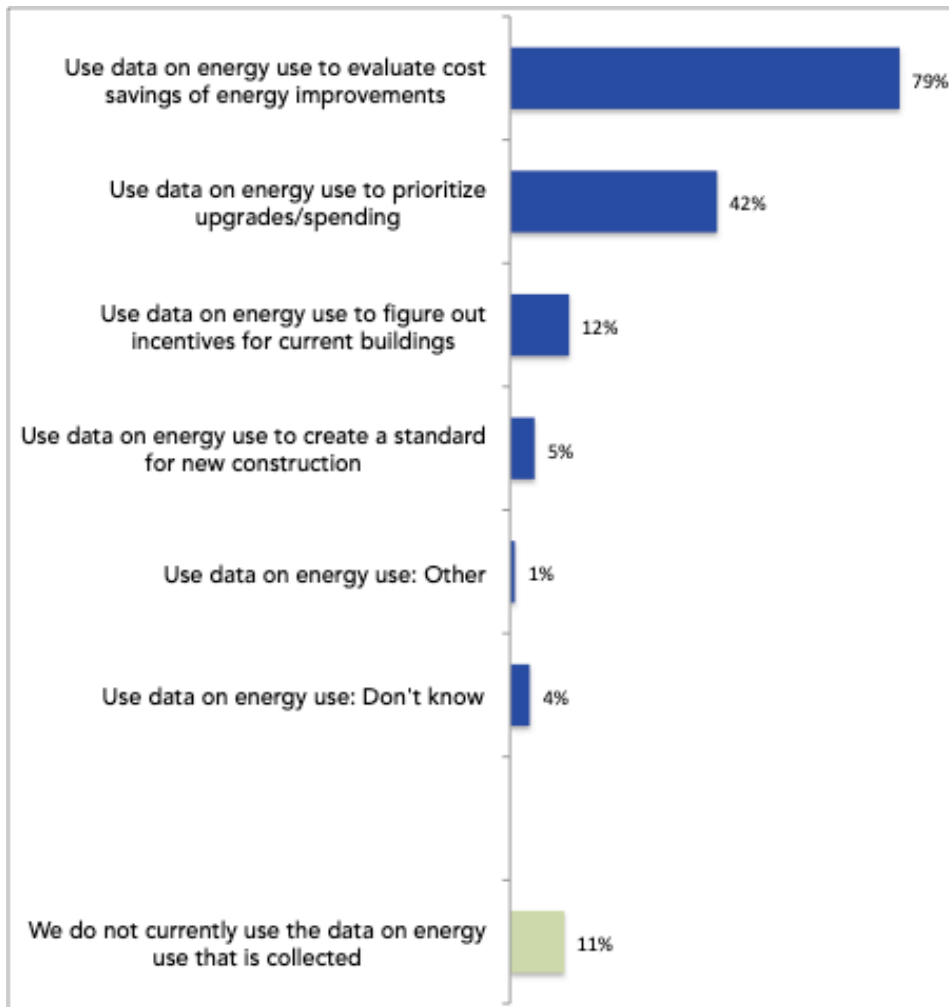
Figure 11: Percent of jurisdictions that currently collect data about energy use



At-risk jurisdictions are slightly more likely to collect this data compared to other local governments, 10% of at-risk jurisdictions require collecting energy-use data for public buildings and another 11% collect this data on a voluntary basis (see [Table A-17](#)). However, for private buildings just 4% of at-risk jurisdictions require (3%) or collect energy-use data on a voluntary basis (1%) (see [Table A-18](#)). MGC participants are much more likely to collect energy-use data for public buildings (33% require, 49% collect on a voluntary basis), but data collection for private buildings is still low (3% require, 12% collect on a voluntary basis).

Among jurisdictions that do collect such data, 79% say they use it to evaluate cost savings of energy improvements, and 42% say they use it to prioritize upgrades/spending. Fewer use it for figuring out incentives for current buildings (12%) or creating a standard for new construction (5%), while 11% say they do not currently use the data on energy use that is collected.

Figure 12: Ways jurisdictions use data about energy use in public and private buildings, among jurisdictions that collect data on energy use

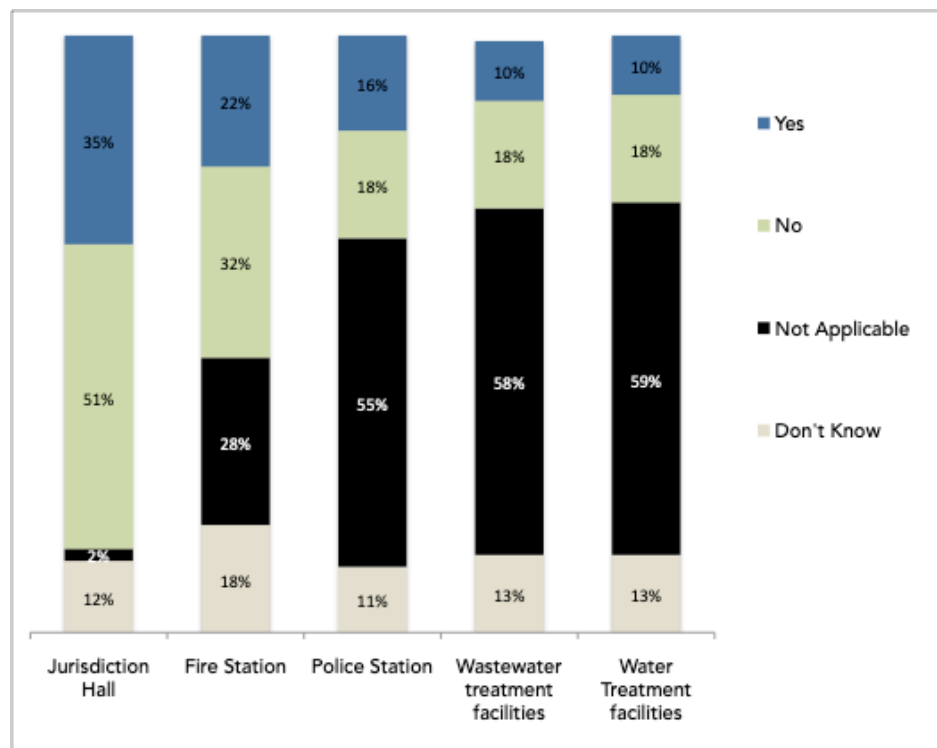


Energy Audits on community facilities

The Spring 2019 Michigan Public Policy Survey (MPPS) asked local officials about their jurisdiction’s actions to reduce costs or environmental impacts of energy use, and found that most jurisdictions have taken some type of action. In particular, 50% of Michigan local governments statewide said they had adopted policies or plans to improve energy efficiency in their government facilities¹. The MiLES survey followed up on this MPPS question and asked all jurisdictions statewide—regardless of whether or not they have considered energy plans or policies—if any energy audits (i.e., measuring energy use and efficiency) have been conducted in various government facilities. Overall, 39% of jurisdictions report having at least one facility where audits have been conducted, including 45% of at-risk jurisdictions, 30% of UP jurisdictions, and 87% of MGC participants.

The most common location for audits is in jurisdiction halls/county administration buildings, with 35% of Michigan local governments statewide reporting that they have had energy audits conducted in those buildings. Fewer say energy audits have been conducted for fire stations (22%), police stations (16%), water treatment facilities (10%) and wastewater treatment facilities (10%).

Figure 13: Percent of jurisdictions with energy audits in public buildings



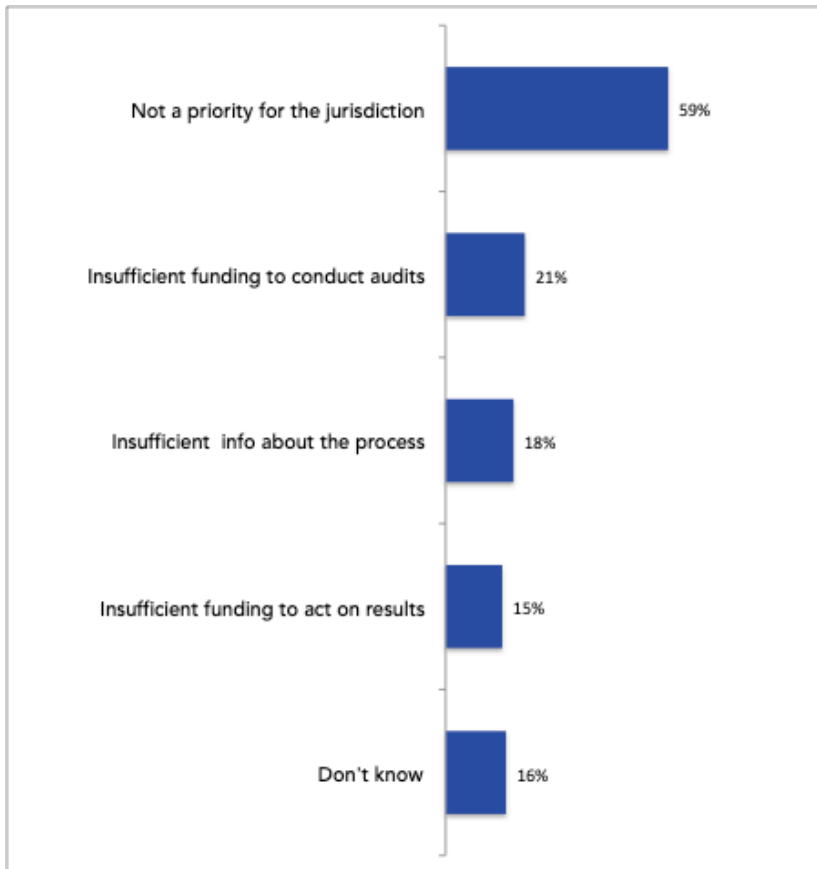
At-risk jurisdictions are slightly more likely to report that energy audits have been conducted for police stations (21%), water treatment facilities (21%), and wastewater treatment facilities (22%). UP jurisdictions are less likely to say energy audits have been conducted for their jurisdiction hall/county

¹ <http://closup.umich.edu/michigan-public-policy-survey/79/energy-policies-and-environmental-leadership-among-michigans-local-governments-/>

administration building (25%). Nearly three-quarters (73%) of MGC participants have conducted audits for their jurisdiction hall or county administration building, 64% for police station, 54% for fire stations, 48% for wastewater treatment, 34% for water treatment (see [Table A-19](#) to [Table A-23](#)).

Among jurisdictions that report they have had no energy audits in any public facilities, 59% say that such audits are not a priority for the jurisdiction, while 21% say they have insufficient funding to conduct audits.

Figure 14: Reasons energy audits have not been conducted on local public facilities, among jurisdictions that have had no energy audits for any public facilities

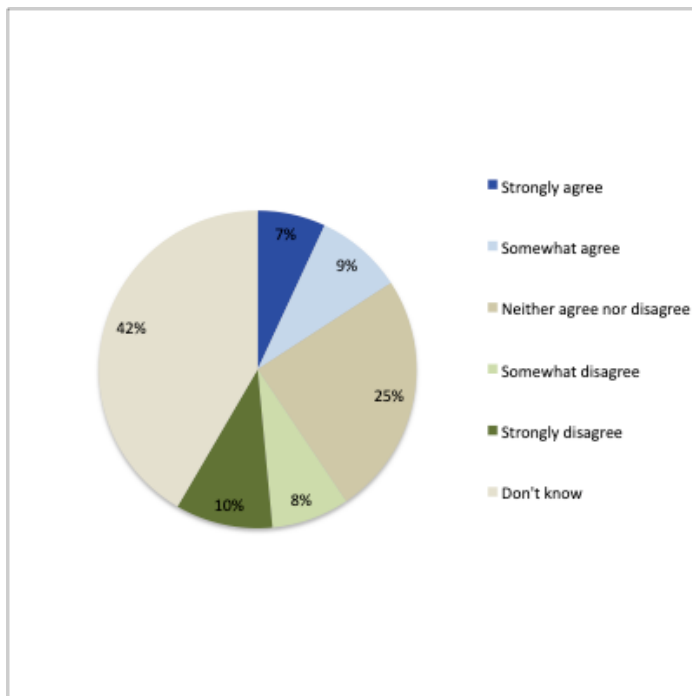


At-risk jurisdictions are more likely to say there is insufficient funding to conduct audits (34%) or insufficient funding to act on results (21%) compared to other jurisdictions statewide, and are also more likely to say they have insufficient information about the process (see [Table A-24](#)).

Energy Codes in residential and commercial construction

The MiLES survey also explored issues related to residential and commercial construction in local communities, as they relate to minimum energy efficiency standards that new residential and commercial buildings must meet under the Michigan Uniform Energy Code. The first question regarding energy codes asked local officials to indicate whether they believe building inspectors who operate in their jurisdictions struggle to enforce the current Michigan Uniform Energy Code. Statewide, 16% of local leaders agree that building inspectors in their jurisdiction struggle to enforce the current Energy Codes. However, there is very high uncertainty, with 42% of local officials saying they are unsure whether local inspectors struggle to enforce the Energy Codes.

Figure 15: Percent of local officials who agree or disagree that building inspectors in their jurisdictions struggle to enforce the State of Michigan’s current Energy Codes



In the UP, 20% of local officials say building inspectors in their jurisdiction struggle to enforce the State’s Energy Codes. Among officials from MGC participants 24% say building inspectors struggle, and a slightly smaller percentage (31%) say they don’t know (see [Table A-25](#)).

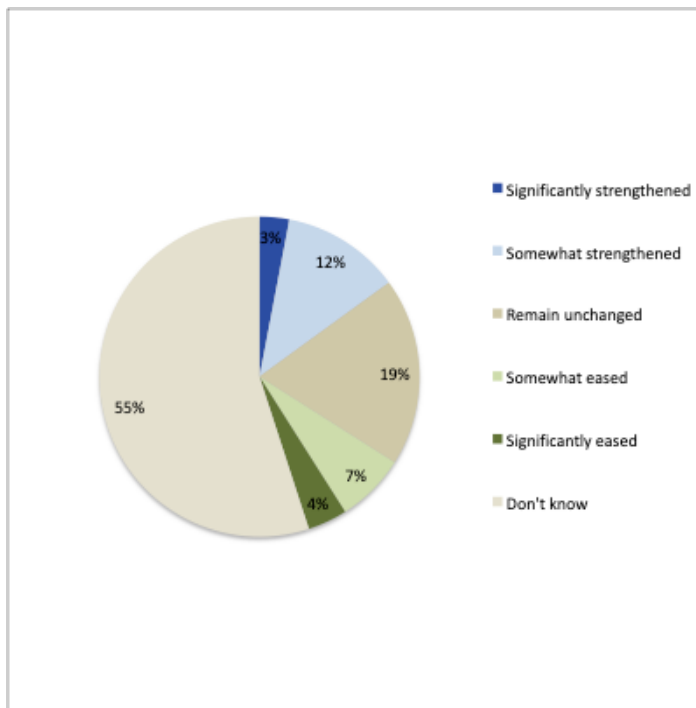
See [Appendix E](#) for local officials’ explanations of why local building inspectors struggle to enforce the current Energy Codes.

Examples of local officials' explanations of why local building inspectors struggle to enforce current energy codes in their jurisdictions and resources that would help assist in enforcement:

- “Builders try to circumvent the rules.”
- “Codes are too complex and don't always apply to the types of construction within our community.”
- “We contract our building code and trades inspectors. There are too few inspectors to serve a community of this size. When they try to enforce the codes, they are sometimes met with opposition and that opposition routinely goes political.”
- “Strict enforcement would thwart development in a depressed real estate market.”
- “Many inspectors question the relevance or efficiency of the "blower door" test. Some think that we are creating unsafe homes.”
- “I think we have one building inspector shared by more than one county. Distance, budget, old buildings, and political will are obstacles for us. We would love to hire even a basic code enforcer. If we had a building inspector, I think they would struggle with the fuel mixes and independent nature of our public. We have all sorts of DIY heating rigs in [REDACTED].”

When it comes to the question of whether local officials think the State of Michigan’s Energy Codes should be either strengthened or eased, a majority of officials statewide (55%) say they are unsure. However, slightly more say strengthened (15%) than say eased (11%), and 19% believe they should remain unchanged.

Figure 16: Percent of local officials who feel Michigan’s Energy Codes should be strengthened or eased



Among MGC participants, 41% say they should be strengthened, but 43% are unsure (see [Table A-26](#)).

Looking just among the small number of local officials who say the State Energy Codes should be strengthened, 35% believe their jurisdiction might be somewhat or very interested in setting local energy codes stronger than the State's (if they were allowed). This translates to approximately 68 jurisdictions statewide. Among MGC participants statewide, 29% (approximately 9 of the 37 participating communities) might be somewhat or very interested. When asked for examples of how local governments would set stronger codes, if jurisdictions were allowed to set their own codes, local leaders cited actions such as creating stricter requirements for existing buildings (not simply new construction), stricter requirements for rental housing, and setting codes to include requirements for alternative energy. For a full list of the ways local leaders would like to set stronger energy codes, see [Appendix F](#).

Examples of specific ways jurisdictions would want to set stronger local energy codes (among those where officials are somewhat or very interested in setting local energy codes stronger than the State's:

- "I don't believe we at the county have this authority or could, but we'd love if the Cities could require stronger energy codes for rental housing in particular."
- "All new construction would require some percentage of energy come from solar and/or wind-generated."
- "We often feel that our programs are hamstrung based on the fact that we cannot exceed state policy. We would be much more aggressive with our implementation of energy efficiency measures if we had the ability to do so."
- "Requirements as part of all upgrades and not just new construction."

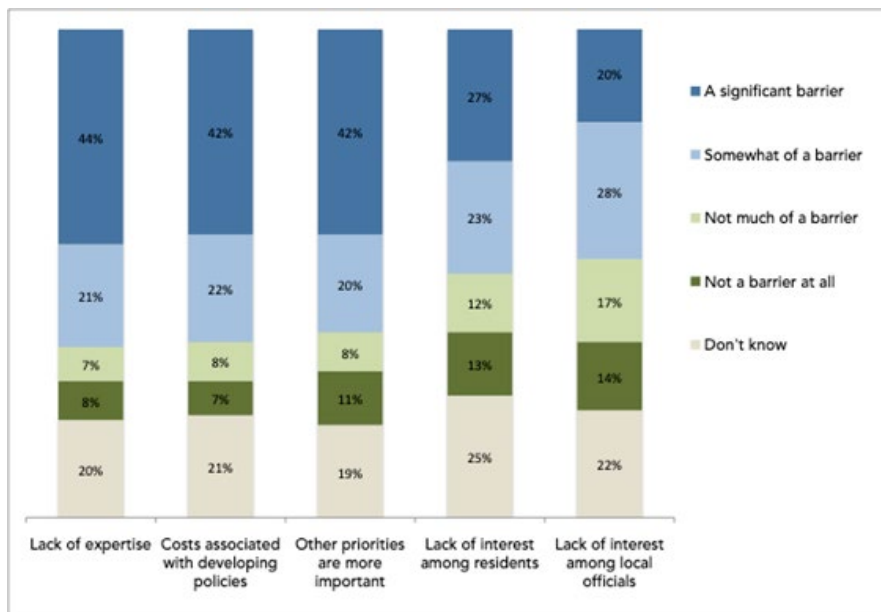
Barriers to developing energy policies

Turning now to those jurisdictions that are not addressing energy issues locally, there are 30% of Michigan local governments that say energy may be relevant, but that they have not at least considered any specific energy policies (this include the 10% of jurisdictions that say no energy issues are at all relevant to their jurisdiction, and the 20% that say at least one energy issue is relevant but their jurisdiction hasn't at least considered specific energy plans or policies).

Among at-risk jurisdictions, 10% say no issues are relevant and 21% say at least one issue is relevant but they haven't considered specific energy plans or policies. Among UP jurisdictions 12% say no energy issues are relevant, while 25% say energy issues are relevant but they have not at least considered specific plans or policies.

Among jurisdictions that have not at least considered specific energy policies (regardless of whether any energy issues are relevant), the most commonly reported barriers to addressing energy issues are a lack of expertise to develop policies (44% say this is a significant barrier while another 21% say it is somewhat of a barrier), the costs associated with developing policies (42% say it is a significant barrier, 22% say it is somewhat of a barrier), and having other priorities that are more important (42% say it is a significant barrier, 20% say it is somewhat of a barrier). Other barriers include a lack of interest among residents (50% say it is a somewhat or significant barrier), and a lack of interest among local officials (48% say it is a somewhat or significant barrier).

Figure 17: Percent of jurisdictions reporting barriers to addressing energy issues locally, among jurisdictions statewide that have not at least considered energy issues



Among UP jurisdictions that have not considered, developed and/or implemented energy policies, three quarters (74%) say that lack of expertise to develop policies is at least somewhat of a barrier (see [Table](#)

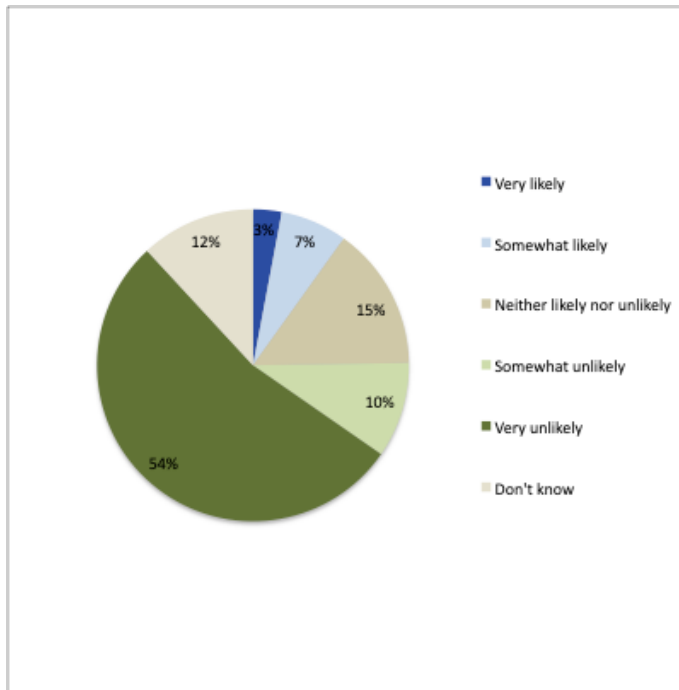
[A-27](#)). Furthermore, 53% of at-risk jurisdictions say costs associated with developing policies are a *significant* barrier, compared to 42% statewide (see [Table A-28](#)).

While costs and lack of expertise were the most commonly cited barriers, 70% of jurisdictions that have not at least considered specific energy policies said that there was a somewhat or significant barrier other than costs or lack of expertise (see [Table A-29](#), [Table A-30](#), and [Table A-31](#)). This includes 68% of at-risk jurisdictions and 67% of UP jurisdictions.

Future consideration of energy issues among those not currently addressing energy

Continuing to look among jurisdictions that have not at least considered energy issues, only 10% say they are somewhat or very likely to begin looking at energy issues within the next 12 months, while 64% say they are somewhat (10%) or very (54%) unlikely to being looking at energy issues within the next 12 months.

Figure 18: Likelihood of beginning to look at energy issues within the next 12 months, among jurisdictions statewide that have not at least considered energy issues



Among officials from at-risk jurisdictions not currently addressing energy, 14% say their jurisdiction is somewhat (9%) or very (5%) likely to consider energy issues within the next 12 months (see [Table A-32](#)). Just 5% of officials from UP jurisdictions that aren't addressing energy say they are somewhat (4%) or very (1%) likely to take up energy policies next year.

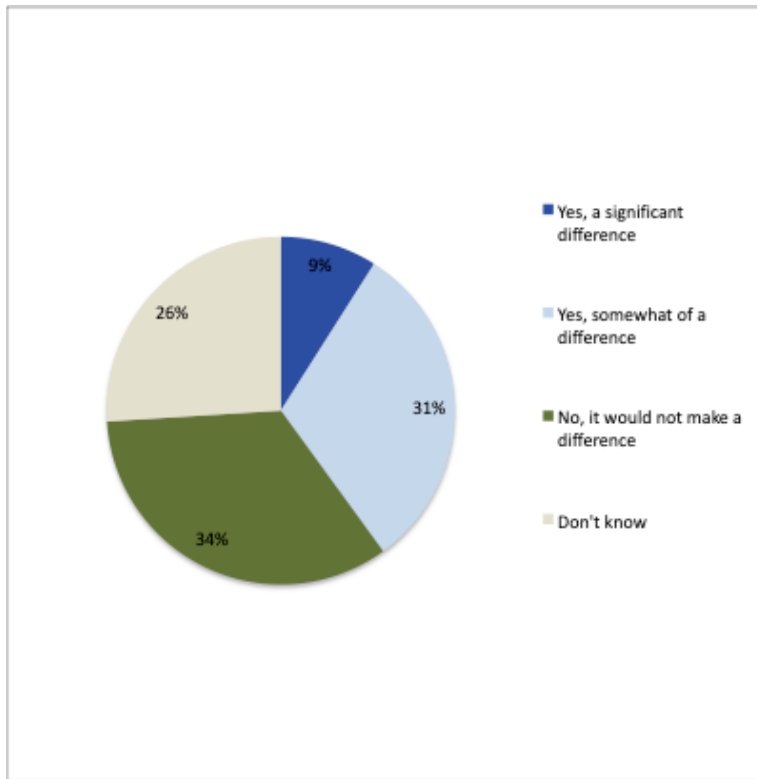
While this report has generally grouped jurisdictions that say no energy issues are relevant to their jurisdiction with jurisdictions which say energy issues are relevant but they have not at least considered plans or policies, there are differences between these groups in terms of their future outlook on energy issues. Officials who say that no energy issues are relevant to their jurisdiction are more likely to say their jurisdictions are *very unlikely* to begin looking at energy issues (60%) compared to jurisdictions that say energy issues are relevant but they have not at least considered plans or policies (51%).

Among the jurisdictions that are likely to consider energy issues in the next 12 months, the most commonly selected issues are reducing jurisdiction government's use of fossil fuels (37%, about 13

jurisdictions statewide) and regulating placement of energy infrastructure on private property (34%, about 11 jurisdictions).

When it comes to reducing barriers, 40% of jurisdictions that haven't at least considered energy issues say that additional resources would make at least somewhat of a difference in their consideration and/or adoption of policies, although just 9% say it would make a significant difference. At-risk (12%) and UP (12%) jurisdictions are slightly more likely to say it would make a significant difference (see [Table A-33](#)).

Figure 19: Local officials' views on whether additional resources would make a difference in consideration or adoption of local policies regarding energy, among jurisdictions statewide that have not at least considered energy issues



Among jurisdictions that are somewhat unlikely to consider energy issues in the next 12 months, 57% say more resources would make somewhat or a significant difference in considering/adopting energy policies. However, among jurisdictions that are very unlikely, only 28% say more resources would make somewhat or significant difference.

Local officials who say that energy issues are at all relevant to their jurisdiction are more likely to say more resources would *not* make a difference (45%), compared to jurisdictions that say energy issues are relevant but they have not considered plans or policies (29%). Among jurisdictions where energy issues are relevant but they have not considered plans or policies, 47% of local officials say additional resources would make a somewhat (37%) or significant (10%) difference.

The MiLES also asked local officials what resources would make a difference in their consideration of energy plans or policies, see [Appendix G](#) for these responses.

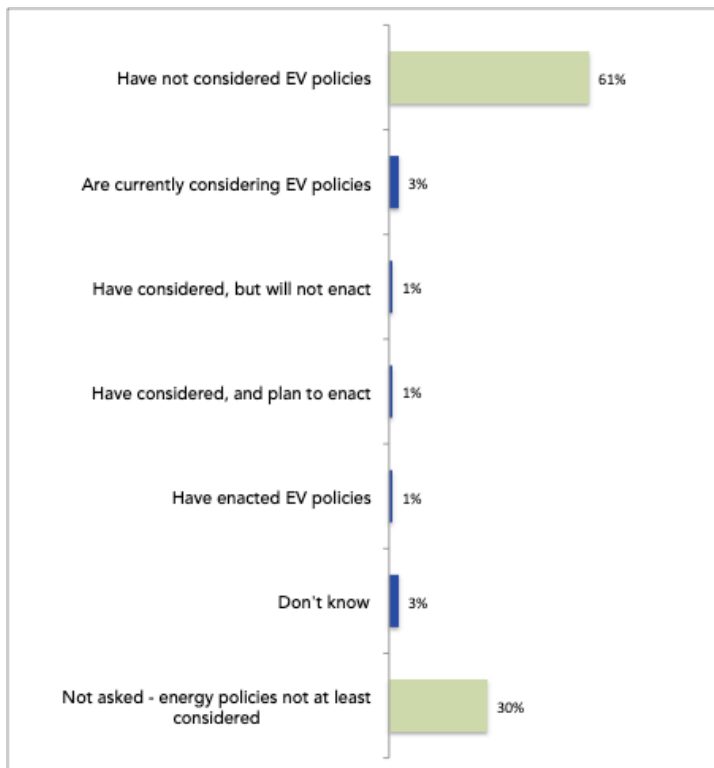
Examples of resources that local officials say might make their jurisdictions more likely to consider local policies regarding energy (among jurisdictions that haven't at least considered energy issues):

- “Workshops, examples of policies to adopt, something showing the benefits.”
- “Presentations by experts, guidance from state, opportunities to connect local officials with members of the industry.”
- “Grant funding or pilot programs becoming available. A program that would lay out best practices and how to do some of this work without a large budget.”
- “My Township is very old school and not receptive to change. we have a few solar panels on a few houses and barns.” I’m not 100% sure what local polices you would like us to consider, but the twp office and twp fire dept have converted many lights over to LED to help bring down the light bill.”
- “Legal policy on wind farms, solar farms, and private wind and solar. Legal steps for limiting or prohibiting natural gas wells requiring horizontal fracking.”
- “If we joined other townships on even the county to develop policies would have more impact than just one townships efforts.”
- “Small Villages like our, need funding. Period.”

Electric Vehicles (EVs)

Once more looking across all local units statewide, overall, just 2% of Michigan jurisdictions report they plan to enact or have enacted policies to fund or incentivize the use of electric vehicles (EVs), while 3% are currently considering such policies, and 1% say they considered EV policies but chose not to enact any. This translates to approximately 87 jurisdictions statewide that have at least considered such policies.

Figure 20: Percent of jurisdictions with EV policies



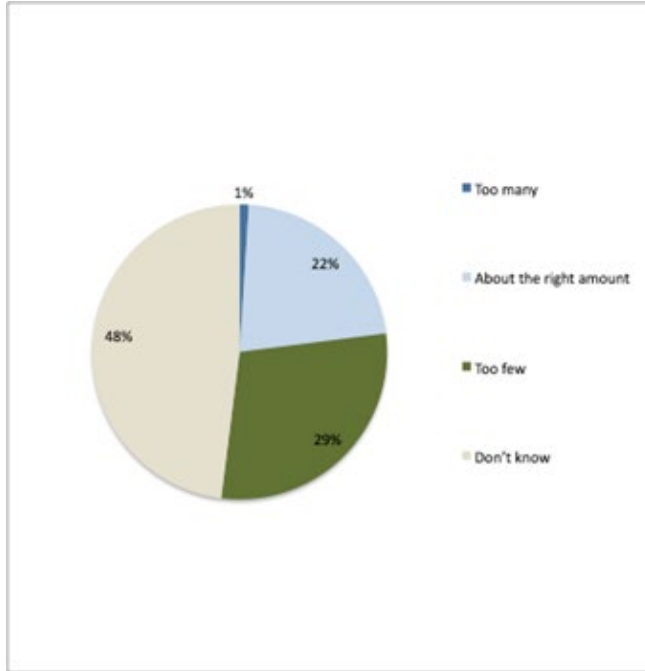
At-risk jurisdictions are slightly more likely to have at least considered policies to fund or incentivize the use of EVs (10%), including 5% who have enacted or plan to enact these types of policies (see [Table A-34](#)). Among MGC participants, 61% of jurisdictions have at least considered EV policies (regardless of the decision of whether to enact), including 31% who have enacted or plan to enact such policies.

Among the few jurisdictions that plan to enact or have enacted policies, by far the most commonly targeted vehicles are residents' private cars or trucks (85%, which translates to approximately 27 jurisdictions).

Looking more specifically at EV charging infrastructure (among both jurisdictions currently addressing energy and those who say they aren't), 29% statewide say their jurisdiction has too few publicly accessible charging stations, while 22% say they have the right amount, and just 1% believe they have

too many. However, there is very high overall uncertainty, with almost half (48%) of Michigan local officials saying they are unsure whether their jurisdiction has enough EV charging stations.

Figure 21: Local officials' assessments of whether their jurisdiction has the right amount of publicly accessible EV charging stations.

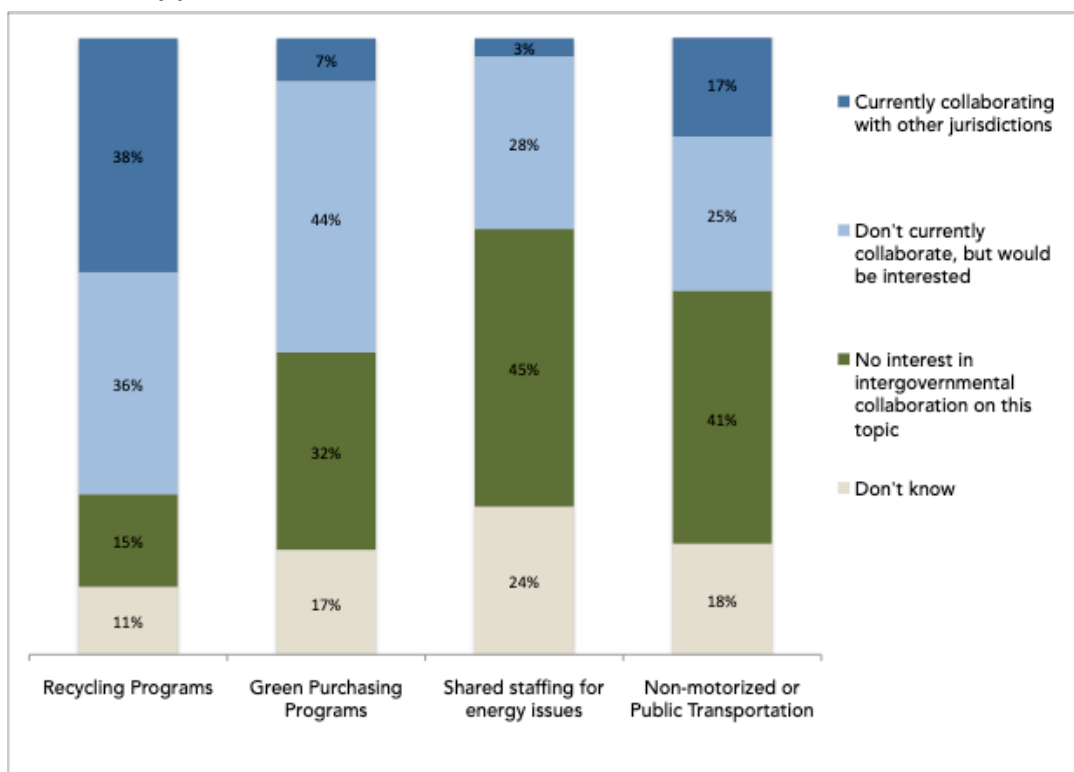


Among at-risk jurisdictions, 36% say they have too few publicly accessible EV charging stations, as do 32% of UP jurisdictions (see [Table A-35](#)). Among MGC participants, 60% say they have too few EV charging stations, and—even in these very energy-focused communities—19% are unsure.

Intergovernmental collaboration on energy issues

When it comes to intergovernmental collaboration, the MiLES survey found considerable interest among local leaders in collaboration on a range of energy and sustainability issues, although for most of these types of programs few jurisdictions are currently collaborating with other local governments.

Figure 22: Percent of jurisdictions collaborating or interested in collaborating on various energy and sustainability policies



The most common current collaboration local governments report is on recycling programs, where 38% of jurisdictions say they collaborate with other local governments (see [Table A-36](#)). Another 36% of Michigan local officials report that their jurisdiction doesn't currently collaborate on recycling but would be interested in doing so. Meanwhile, 17% of jurisdictions report current collaborations on non-motorized or public transportation and another 25% say they would be interested in doing so (see [Table A-37](#)).

Few jurisdictions are currently collaborating on green purchasing programs (7%), however 44% of jurisdictions statewide say they would be interested in doing such collaboration (see [Table A-38](#)). Additionally, while just 3% of jurisdictions currently collaborate on shared staffing for energy issues, 28% would be interested in such collaboration (see [Table A-39](#)).

While at-risk jurisdictions currently collaborate at about the same rates as other jurisdictions statewide, they express higher interest in collaboration. There is particularly high interest in collaborating on green purchasing programs (54%).

UP jurisdictions are generally less likely to report current collaboration on energy and environmental issues. However, 46% of officials from UP jurisdictions say they would be interested in collaborating on green purchasing programs, 43% would be interested in collaborating on recycling programs, 34% would be interested in collaborating on shared staffing, and 28% would be interested in collaborating on non-motorized or public transportation.

When it comes to those jurisdictions that are not at least considering energy plans or policies, they are—unsurprisingly—less likely to report having current intergovernmental collaboration on energy and environmental issues. Yet even among these units, 27% collaborate on recycling. In addition, about one-third of these jurisdictions express interest in collaboration on green purchasing programs (33%) and recycling programs (33%).

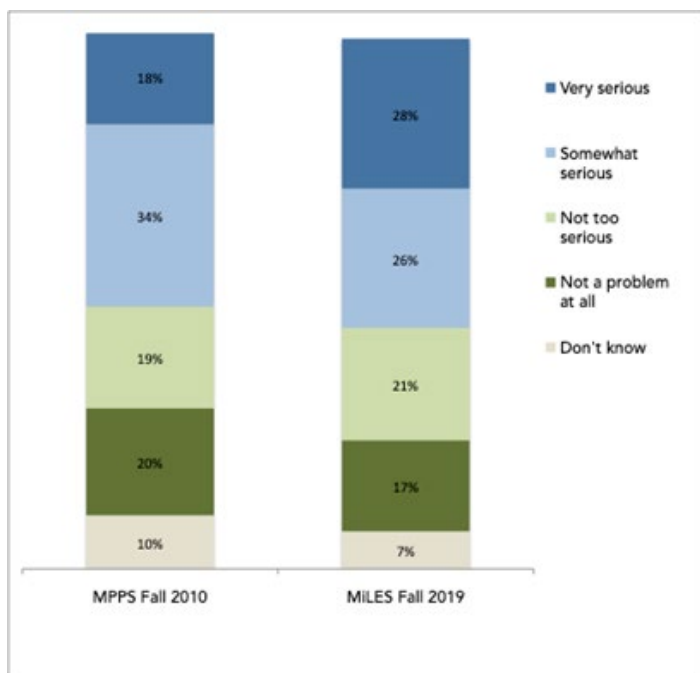
Table 2: Percent of jurisdictions collaborating or interested in collaborating on various energy and sustainability policies, among jurisdictions statewide that have not at least considered energy issues

	Green Purchasing programs	Non-motorized or public transportation	Recycling programs	Shared staffing for energy issues
No interest in intergovernmental collaboration	38%	45%	21%	47%
Don't currently collaborate, but would be interested	33%	20%	33%	18%
Currently collaborate with other jurisdictions	3%	9%	27%	2%
Don't know	20%	19%	13%	25%

Climate Change

The final section of the Fall 2019 MiLES survey asked local leaders about their views on climate change. Sentiments have become slightly more concerned since the last time a similar question was asked of local officials nine years ago². Overall, 28% of current Michigan local officials say climate changes is a very serious problem (see [Table A-40](#)), up from 18% that said the same on the Fall 2010 Michigan Public Policy Survey (MPPS) regarding global warming (see [Table A-41](#))³. Another 26% say climate change is a somewhat serious problem in 2019. Meanwhile, 21% say it's not too serious and 17% say it's not a problem at all, down slightly from 20% in 2010.

Figure 23: Local officials' assessments of global warming/climate change, 2010 MPPS vs. 2019 MiLES



As with opinions among citizens nationwide⁴, there is significant polarization among Michigan's local leaders by political ideology. Among local officials who identify as somewhat or very conservative, just 9% say climate change is a very serious problem in the Fall 2019 MiLES, while 27% say it is not a problem at all. Among moderates, 37% say it is a very serious problem, while 8% say it is not a problem at all.

² Note that in 2010 local officials were asked about global warming, while in 2019 local officials were asked about climate change. National public opinion research has found that there is little difference between these terms for those who already believe that climate change is occurring. However, climate skeptics were more likely to say they were not concerned at all about "global warming" compared to "climate change". See: <http://closup.umich.edu/issues-in-energy-and-environmental-policy/43/belief-and-disbelief-in-global-warming-10-years-of-attitudes-about-climate-change-in-the-nsee/>

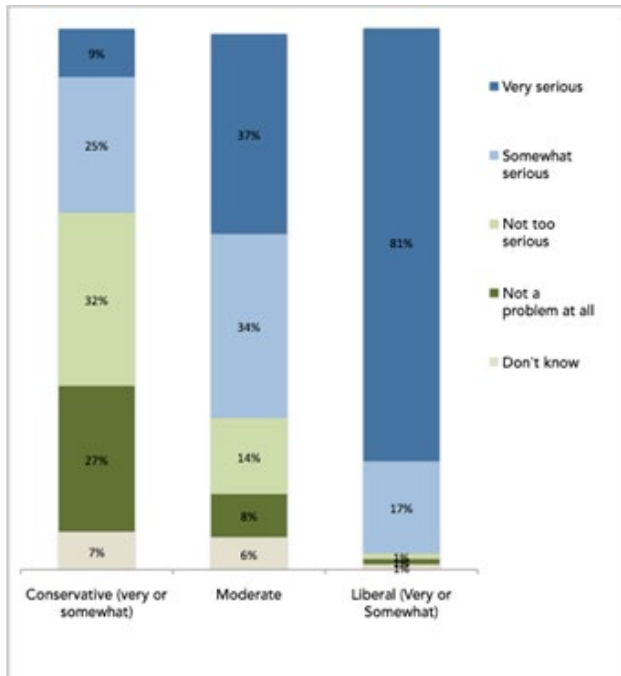
³ <http://closup.umich.edu/michigan-public-policy-survey/10/local-government-and-environmental-leadership-views-of-michigans-local-leaders/>

⁴ <http://closup.umich.edu/issues-in-energy-and-environmental-policy/37/as-americans-experienced-the-warmest-may-on-record-their-acceptance-of-global-warming-reaches-a-new-high/>

And among those who identify as somewhat or very liberal, 81% say it is a very serious problem, while just 1% say it is not a problem at all.

In particular, among local officials who identify as very conservative, just 6% say climate change is a very serious problem, while 75% say it is not too serious (31%) or not a problem at all (44%). At the other end of the spectrum, 97% of local officials who identify as very liberal say it is a very serious problem.

Figure 24: Local officials’ assessments of climate change, by self-identified political ideology

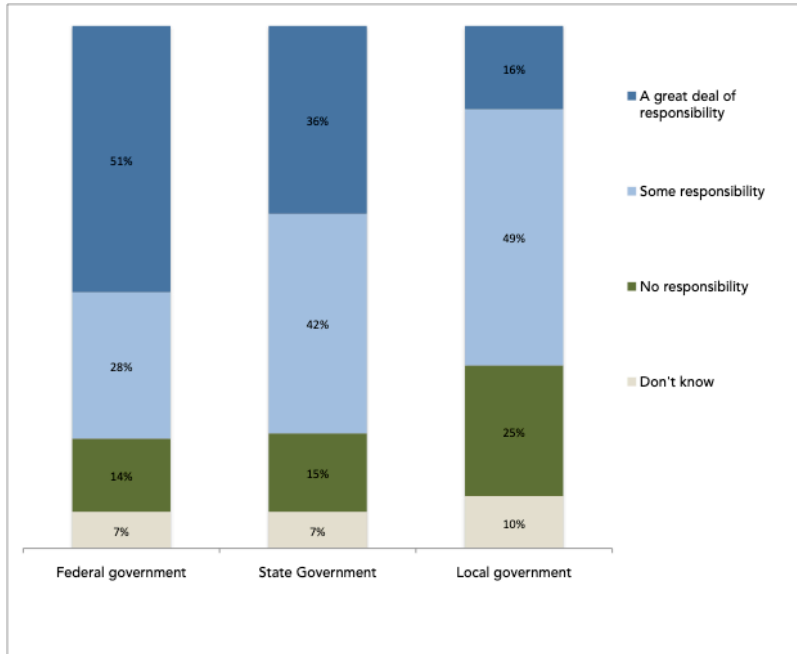


When it comes to responsibility for taking action to address climate change, local officials are most likely to place responsibility on the federal government. Statewide, 51% of local officials say the federal government has a great deal of responsibility while 28% say it has some responsibility (see [Table A-42](#)). Local officials also place responsibility on the state government, with 36% saying it has a great deal of responsibility and 42% saying it has some responsibility (see [Table A-43](#)). Fewer Michigan local officials believe that local governments have a great deal of responsibility (16%), however a majority (65%) still say that local governments have at least some responsibility (see [Table A-44](#)). Compared to 2010⁵, local officials are more likely to place a great deal of responsibility on the federal government (45% in 2010) and state governments (25% in 2010), however the percent who say local governments have a great deal of responsibility is down slightly since 2010 (18%)⁶.

⁵ In Fall 2010 local officials were asked about “global warming” while in Fall 2019 local officials were asked about “climate change”. See *note 2* for research on differences in public opinion when using these different terms.

⁶ The National Surveys on Energy and Environment (NSEE) have asked the general public about the division of responsibility for taking actions to reduce climate change. The most recent time this was asked was in Fall 2017. At that time, 34% of Americans said that local governments have a great deal of responsibility for taking actions to reduce global warming: <http://myumi.ch/51nKy>

Figure 25: Local officials' assessments of responsibility for taking actions to address climate change



Local officials who identify as somewhat or very conservative are much less likely than other officials to place a great deal of responsibility on the state (18%) and local (8%) levels of government. In contrast, 49% of local officials who identify as moderate say the state has a great deal of responsibility, and 20% say local governments have a great deal of responsibility. Among those who identify as somewhat or very liberal, 75% say the state has a great deal of responsibility, and 38% say that local governments have a great deal of responsibility.

Figure 26: Local officials' assessments of state government responsibility for taking actions to address climate change, by self-identified political ideology

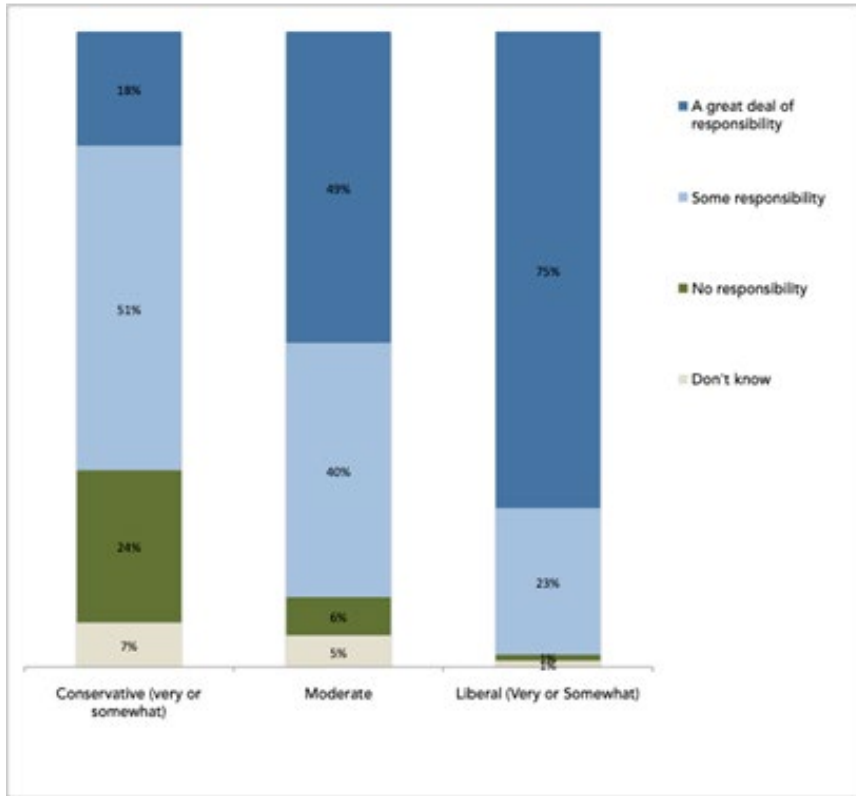
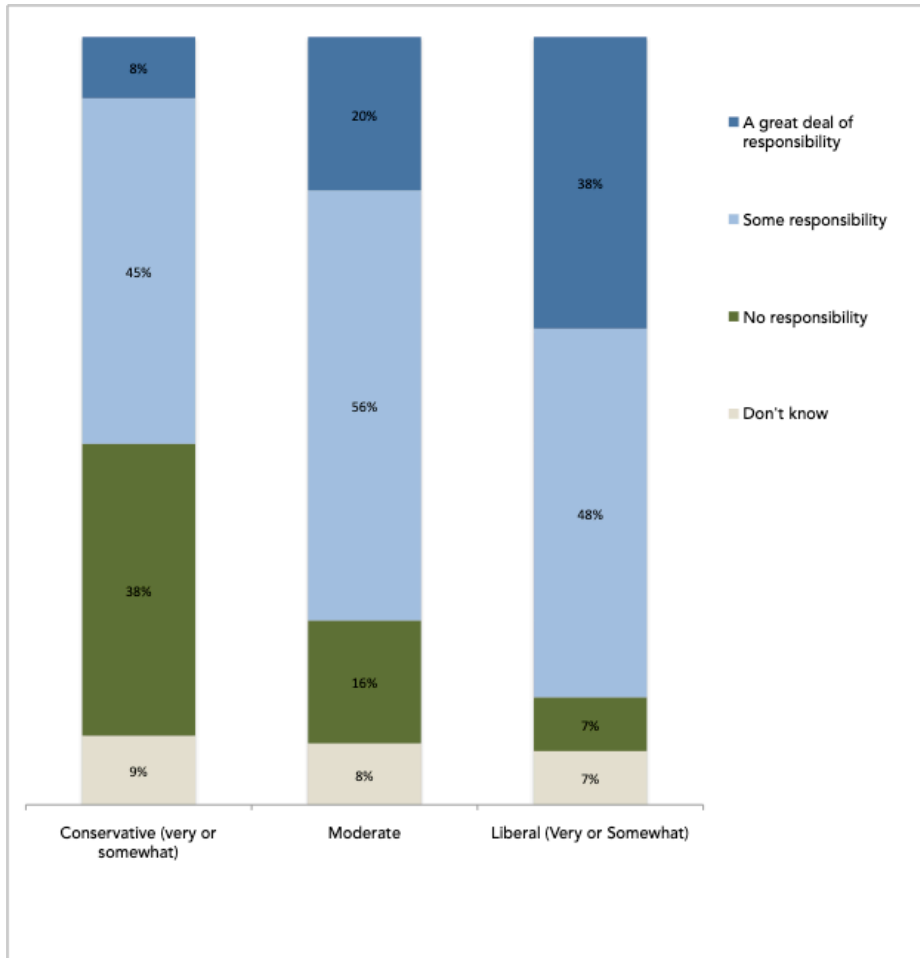


Figure 27: Local officials' assessments of local government responsibility for taking actions to address climate change, by self-identified political ideology



Among those who say climate change is a very serious problem, 40% say local governments have a great deal of responsibility, another 50% say local governments bear some responsibility, and 6% say they have no responsibility at all. Among those who say it is a somewhat serious problem, 13% say local governments have a great deal of responsibility, while 70% say they have some responsibility, and 12% say they have no responsibility. For local officials who say it is not too serious a problem, just 3% say local governments have a great deal of responsibility, while 36% say they have no responsibility. Finally, among those who say climate change is not a problem at all 72% say local governments bear no responsibility for addressing climate change, while just 19% say they bear some (16%) or a great deal (3%) of responsibility.

Sustainability vs. Climate Change

Notably, survey results suggest that local officials may be more receptive to the idea of taking action on environmental sustainability instead of climate change. On the Spring 2019 Michigan Public Policy Survey (MPPS), 23% of local officials statewide strongly agreed that promoting environmental sustainability and the concept of “being green” was an important part of local government leadership⁷, higher than the 16% of officials who said that local governments had a great deal of responsibility for addressing climate change in the Fall 2019 MiLES. Meanwhile, on the Spring 2019 survey just 4% of local officials *strongly disagreed* that promoting environmental sustainability was an important part of local government leadership, much lower than the 25% who said on the Fall 2019 survey that local governments bear no responsibility for addressing climate change.

Table 3: Comparison of local officials’ views on the role of local governments in environmental sustainability (Spring 2019) and in addressing climate change (Fall 2019)

	Statewide
Percent who <u>strongly agree</u> that environmental sustainability is an important part of local government leadership (Spring 2019)	23%
Percent who say local governments have <u>a great deal</u> of responsibility for taking actions to address climate change (Fall 2019)	16%
Percent who <u>strongly disagree</u> that environmental sustainability is an important part of local government leadership (Spring 2019)	4%
Percent who say local governments have <u>no responsibility</u> for taking actions to address climate change (Fall 2019)	25%

Action on environmental sustainability may also be a less politically polarized framing. In Spring 2019 while the MPPS did find a substantial partisan gap between local officials who identified as Democrats and Republicans, only 6% of Republican local officials *strongly disagreed* that promoting environmental sustainability is an important aspect of local government leadership, compared to 4% of Independents and 0% of Democrats (see [Table A-45](#)). Meanwhile, the Fall 2019 MiLES found larger variation by political views⁸ on the question of local government action on climate change. Among local officials who said their political views were somewhat or very conservative, 38% said that local governments bear no responsibility at all for addressing climate change, compared to 16% among officials who said their political views were moderate and just 7% among officials who said their political views were somewhat or very liberal (see [Table A-46](#)).

⁷ <http://closup.umich.edu/michigan-public-policy-survey/79/energy-policies-and-environmental-leadership-among-michigans-local-governments-/>

⁸ Note that while the Spring 2019 MPPS survey asked local officials about their partisan self-identification, the Fall 2019 MiLES asked local officials instead about their political views, on a spectrum from “very conservative” to “very liberal”. Therefore, direct comparisons across years cannot be made within each group. However, comparisons of the variations across each spectrum are still useful.

Methodology

The Fall 2019 Michigan Local Energy Survey (MiLES) was conducted from October 7 - December 2, 2019. Surveys were sent via internet and hardcopy to top elected and appointed officials (county administrators, board chairs, and clerks; city mayors, managers, and clerks; village managers, presidents, and clerks; township supervisors, managers, and clerks) from all 83 counties, 280 cities, 253 villages, and 1,240 townships in Michigan. A total of 1,350 jurisdictions returned valid surveys (58 counties, 208 cities, 179 villages, and 905 townships), resulting in a 72.7% response rate. Responding jurisdictions included 216 at-risk communities (low income, Rising Tide, or coal plant closure), a 70.8% response rate, and 150 Upper Peninsula jurisdictions, a 73.2% response rate.

Note that because the unit of analysis in the survey is the jurisdiction, the findings reflect the percentage of local officials that feel a certain way. That is, the response of the County Board Chair in a very populous county is treated on even footing with the response of the Village President of a small village. As a result MPPS has more representation from these small, often rural areas than would a survey that was representative of population.

The margin of error for the MiLES as a whole is +/- 1.39%. The key relationships discussed in the above report are statistically significant at the $p < .05$ level or below, unless otherwise specified. Missing responses are not included in the tabulations, unless otherwise specified. Some report figures may not add to 100% due to rounding within response categories. Quantitative data are weighted to account for non-response. Verbatim responses, included in the text and in Appendices B-G, have been redacted to protect confidentiality and may have been edited for clarity.

The survey responses presented here are those of local Michigan officials, while further analysis represents the views of the authors. Neither necessarily reflects the views of the University of Michigan, or of other partners in the MPPS or the MiLES.

Acknowledgement and Disclaimer

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Appendices:

A. Appendix A: Data Tables

Table A-1: Percent of jurisdictions assessing local relevance of various issues as "somewhat" or "very" relevant

	Statewide	Low income, Rising Tide, or Coal Plant	Upper Peninsula jurisdictions	2019 Michigan Green Communities (MGC) participating jurisdictions
Regulating placement of energy infrastructure on private property	57%	49%	47%	72%
Improving energy efficiency for local businesses or residents	53%	62%	49%	79%
Siting energy infrastructure on public property	45%	53%	34%	91%
Reducing your jurisdiction government's use of fossil fuels	44%	50%	42%	93%
Planning for electric vehicle (EV) infrastructure	23%	29%	15%	88%

Source: Fall 2019 MiLES

Note: The categories "Low income, Rising Tide, or Coal Plant" and "Upper Peninsula jurisdictions" and "Michigan Green Communities" are not mutually exclusive. Upper Peninsula jurisdictions that also meet the criteria for Low income, Rising Tide, or Coal Plant" are included in both categories. "Low income, Rising Tide, or Coal Plant" includes only cities, townships, and villages, while the other categories also include counties.

[Back to text](#)

Table A-2: Percent of jurisdictions that report considering any plans and/or policies regarding energy issues

	Statewide	Low income, Rising Tide, or Coal Plant	Upper Peninsula jurisdictions	2019 MGC participants
Not at all	19%	19%	24%	0%
Very little	29%	33%	34%	12%
A moderate amount	29%	27%	25%	47%
Extensively	12%	9%	5%	40%
Don't know	1%	2%	1%	0%
<i>Not asked – none relevant</i>	10%	11%	12%	0%

[Back to text](#)

Table A-3: Percent of jurisdictions that report developing any plans and/or policies regarding energy issues

	Statewide	Low income, Rising Tide, or Coal Plant	Upper Peninsula jurisdictions	2019 MGC participants
Not at all	29%	34%	39%	7%
Very little	27%	28%	29%	15%
A moderate amount	22%	19%	15%	53%
Extensively	10%	6%	4%	23%
Don't know	2%	3%	2%	2%
<i>Not asked – none relevant</i>	10%	11%	12%	0%

[Back to text](#)

Table A-4: Percent of jurisdictions that report enacting any plans and/or policies regarding energy issues

	Statewide	Low income, Rising Tide, or Coal Plant	Upper Peninsula jurisdictions	2019 MGC participants
Not at all	33%	38%	42%	7%
Very little	25%	25%	29%	18%
A moderate amount	20%	18%	12%	53%
Extensively	10%	6%	4%	20%
Don't know	2%	2%	1%	3%
<i>Not asked – none relevant</i>	10%	11%	12%	0%

[Back to text](#)

Table A-5: Percent of jurisdictions with someone specifically responsible for addressing energy issues

	Statewide	Low income, Rising Tide, or Coal Plant	Upper Peninsula jurisdictions	2019 MGC participants
No one in the jurisdiction is specifically responsible for energy issues	50%	45%	47%	27%
Jurisdiction staff whose sole job responsibility is energy issues	1%	3%	2%	10%
Jurisdiction staff who have other job responsibilities in addition to handling energy issues	11%	13%	5%	51%
Elected official(s) who have taken ownership of energy issues	5%	3%	4%	3%
Use external organizations or consultants on energy issues	6%	7%	6%	27%
Don't know	2%	2%	3%	3%
<i>Not asked - energy policies not at least considered</i>	30%	31%	37%	0%

[Back to text](#)

Table A-6: Percent of jurisdictions that engage with residents on energy issues

	Statewide	Low income, Rising Tide, or Coal Plant	Upper Peninsula jurisdictions	2019 MGC participants
Rarely or never	52%	52%	49%	37%
A few times a year	14%	12%	9%	36%
Once a month or more	3%	3%	3%	22%
Don't know	1%	2%	2%	6%
<i>Not asked - energy policies not at least considered</i>	30%	31%	37%	0%

[Back to text](#)

Table A-7: Percent of jurisdictions that would find resources valuable to assist with engagement

	Statewide	Low income, Rising Tide, or Coal Plant	Upper Peninsula jurisdictions	2019 MGC participants
Funds or grants for community engagement efforts	27%	41%	29%	84%
Newsletter article templates	25%	28%	17%	68%
Examples of social media posts	18%	27%	12%	67%
Training for staff	17%	25%	15%	55%
Sample neighborhood meeting materials/agendas	11%	17%	7%	44%
None, do not need any assistance	14%	8%	11%	0%
Don't know	15%	11%	13%	2%
<i>Not asked - energy policies not at least considered</i>	30%	31%	37%	0%

[Back to text](#)

Table A-8: Percent of jurisdictions likely to take advantage of resources that address planning and/or zoning for energy issues, among those that plan and/or zone and also have considered energy issues

	Jurisdictions statewide that plan and/or zone & have considered energy issues	Low income, Rising Tide, or Coal Plant	Upper Peninsula jurisdictions	2019 MGC participants
Sample zoning ordinances for addressing energy issues	54%	61%	52%	74%
Templates/examples for addressing energy issues in our Master Plan	45%	56%	43%	62%
Workshops or training sessions on energy planning or zoning	38%	46%	37%	70%
Matching funding for hiring consultants or staff	27%	42%	25%	69%
A “help desk” to call for help with planning and zoning on energy issues	26%	33%	23%	57%
None, we do not need any planning assistance on energy issues	19%	12%	13%	4%
Don't know	12%	6%	15%	0%

[Back to text](#)

Table A-9: Likelihood jurisdictions will alter their approach to planning and/or zoning on energy issues within next 12 months, among those that plan and/or zone & also have considered energy issues

	Jurisdictions statewide that plan and/or zone & have considered energy issues	Low income, Rising Tide, or Coal Plant	Upper Peninsula jurisdictions	2019 MGC participants
Very likely	11%	17%	12%	25%
Somewhat likely	24%	28%	24%	34%
Neither likely nor unlikely	23%	23%	25%	19%
Somewhat unlikely	13%	9%	9%	10%
Very unlikely	22%	19%	24%	7%
Don't know	7%	3%	6%	6%

[Back to text](#)

Table A-10: Percent of jurisdictions with any renewable energy goals or requirements to offset government’s energy use

	Statewide	Low income, Rising Tide, or Coal Plant	Upper Peninsula jurisdictions	2019 MGC participants
No goals or requirements	54%	46%	50%	18%
Currently considering	6%	11%	4%	41%
Yes, we have goal(s)	4%	7%	3%	20%
Yes, we have requirement(s)	1%	1%	1%	10%
Don't know	4%	4%	5%	10%
<i>Not asked - energy policies not at least considered</i>	30%	32%	37%	0%

[Back to text](#)

Table A-11: Percent of jurisdictions with any renewable energy goals or requirements to offset community’s energy use

	Statewide	Low income, Rising Tide, or Coal Plant	Upper Peninsula jurisdictions	2019 MGC participants
No goals or requirements	57%	50%	50%	39%
Currently considering	4%	10%	2%	32%
Yes, we have goal(s)	2%	3%	2%	13%
Yes, we have requirement(s)	1%	1%	1%	6%
Don't know	5%	4%	7%	10%
<i>Not asked - energy policies not at least considered</i>	30%	32%	37%	0%

[Back to text](#)

Table A-12: Consideration of placing solar panels on rooftops of public buildings

	Statewide	Low income, Rising Tide, or Coal Plant	Upper Peninsula jurisdictions	2019 MGC participants
No, have not considered	44%	43%	43%	22%
Currently considering	6%	7%	6%	18%
Yes, and we support	9%	12%	7%	44%
Yes, and we oppose	1%	1%	0%	6%
Not applicable	6%	1%	1%	0%
Don't know	4%	3%	7%	10%
<i>Not asked - energy policies not at least considered</i>	30%	32%	37%	0%

[Back to text](#)

Table A-13: Consideration of placing solar panels in public brownfields

	Statewide	Low income, Rising Tide, or Coal Plant	Upper Peninsula jurisdictions	2019 MGC participants
No, have not considered	38%	39%	43%	25%
Currently considering	3%	4%	2%	18%
Yes, and we support	5%	12%	3%	18%
Yes, and we oppose	0%	0%	0%	3%
Not applicable	19%	11%	9%	22%
Don't know	5%	3%	6%	14%
<i>Not asked - energy policies not at least considered</i>	30%	32%	37%	0%

[Back to text](#)

Table A-14: Consideration of placing solar panels in public landfills

	Statewide	Low income, Rising Tide, or Coal Plant	Upper Peninsula jurisdictions	2019 MGC participants
No, have not considered	35%	34%	39%	19%
Currently considering	2%	2%	3%	5%
Yes, and we support	4%	10%	2%	17%
Yes, and we oppose	1%	0%	1%	0%
Not applicable	25%	19%	14%	49%
Don't know	4%	2%	5%	10%
<i>Not asked - energy policies not at least considered</i>	30%	32%	37%	0%

[Back to text](#)

Table A-15: Consideration of placing solar panels in public airports

	Statewide	Low income, Rising Tide, or Coal Plant	Upper Peninsula jurisdictions	2019 MGC participants
No, have not considered	33%	34%	38%	20%
Currently considering	1%	2%	1%	8%
Yes, and we support	3%	8%	3%	4%
Yes, and we oppose	0%	0%	0%	3%
Not applicable	27%	20%	18%	49%
Don't know	4%	4%	3%	17%
<i>Not asked - energy policies not at least considered</i>	30%	32%	37%	0%

[Back to text](#)

Table A-16: Consideration of placing solar panels in other public lands

	Statewide	Low income, Rising Tide, or Coal Plant	Upper Peninsula jurisdictions	2019 MGC participants
No, have not considered	45%	43%	45%	33%
Currently considering	5%	7%	8%	20%
Yes, and we support	7%	11%	2%	26%
Yes, and we oppose	1%	1%	0%	7%
Not applicable	7%	2%	2%	0%
Don't know	5%	3%	5%	16%
<i>Not asked - energy policies not at least considered</i>	30%	32%	37%	0%

[Back to text](#)

Table A-17: Percent of jurisdictions that currently collect data about energy use in public buildings

	Statewide	Low income, Rising Tide, or Coal Plant	Upper Peninsula jurisdictions	2019 MGC participants
Yes, we require it	6%	10%	4%	33%
Yes, on a voluntary basis	9%	11%	10%	49%
No, we do not collect data	51%	42%	46%	9%
Don't know	5%	6%	3%	9%
<i>Not asked - energy policies not at least considered</i>	30%	32%	37%	0%

[Back to text](#)

Table A-18: Percent of jurisdictions that currently collect data about energy use in private buildings

	Statewide	Low income, Rising Tide, or Coal Plant	Upper Peninsula jurisdictions	2019 MGC participants
Yes, we require it	1%	3%	2%	3%
Yes, on a voluntary basis	1%	1%	1%	12%
No, we do not collect data	62%	58%	58%	70%
Don't know	5%	7%	3%	15%
<i>Not asked - energy policies not at least considered</i>	30%	32%	37%	0%

[Back to text](#)

Table A-19: Percent of jurisdictions where energy audits have been conducted for their jurisdiction hall/county administration building

	Statewide	Low income, Rising Tide, or Coal Plant	Upper Peninsula jurisdictions	2019 MGC participants
Yes	35%	38%	25%	73%
No	51%	46%	57%	21%
Not applicable	2%	3%	3%	3%
Don't Know	12%	14%	15%	3%

[Back to text](#)

Table A-20: Percent of jurisdictions where energy audits have been conducted for fire stations

	Statewide	Low income, Rising Tide, or Coal Plant	Upper Peninsula jurisdictions	2019 MGC participants
Yes	22%	22%	18%	54%
No	32%	32%	45%	25%
Not applicable	28%	22%	19%	9%
Don't Know	18%	24%	18%	12%

[Back to text](#)

Table A-21: Percent of jurisdictions where energy audits have been conducted for police stations

	Statewide	Low income, Rising Tide, or Coal Plant	Upper Peninsula jurisdictions	2019 MGC participants
Yes	16%	21%	8%	64%
No	18%	20%	17%	23%
Not applicable	55%	44%	62%	2%
Don't Know	11%	14%	14%	10%

[Back to text](#)

Table A-22: Percent of jurisdictions where energy audits have been conducted for water treatment facilities

	Statewide	Low income, Rising Tide, or Coal Plant	Upper Peninsula jurisdictions	2019 MGC participants
Yes	10%	21%	10%	34%
No	18%	25%	22%	17%
Not applicable	59%	38%	52%	27%
Don't Know	13%	17%	15%	22%

[Back to text](#)

Table A-23: Percent of jurisdictions where energy audits have been conducted for wastewater treatment facilities

	Statewide	Low income, Rising Tide, or Coal Plant	Upper Peninsula jurisdictions	2019 MGC participants
Yes	10%	22%	10%	48%
No	18%	25%	21%	5%
Not applicable	58%	38%	54%	26%
Don't Know	13%	16%	15%	21%

[Back to text](#)

Table A-24: Reasons energy audits have not been conducted on local public facilities, among jurisdictions that have had no energy audits for any public facilities

	Jurisdictions statewide that have had no energy audits for any public facilities	Low income, Rising Tide, or Coal Plant	Upper Peninsula jurisdictions	2019 MGC participants
Not a priority for the jurisdiction	59%	55 %	53%	0%
Insufficient funding to conduct energy audits	21%	34 %	27%	100%
Insufficient information about the energy audit process	18%	26%	27%	0%
Insufficient funding to act on the results of any audits	15%	21%	22%	0%
Don't know	16%	11%	17%	0%

[Back to text](#)

Table A-25: Percent of local officials who agree or disagree that building inspectors in their jurisdictions struggle to enforce the State of Michigan's current Energy Codes

	Statewide	Low income, Rising Tide, or Coal Plant	Upper Peninsula jurisdictions	2019 MGC participants
Strongly agree	7%	7%	6%	3%
Somewhat agree	9%	9%	14%	21%
Neither agree nor disagree	25%	23%	28%	26%
Somewhat disagree	8%	5%	6%	16%
Strongly disagree	10%	6%	10%	3%
Don't know	42%	49%	38%	31%

[Back to text](#)

Table A-26: Percent of local officials who feel Michigan’s Energy Codes should be strengthened or eased

	Statewide	Low income, Rising Tide, or Coal Plant	Upper Peninsula jurisdictions	2019 MGC participants
Significantly strengthened	3%	3%	2%	29%
Somewhat strengthened	12%	13%	10%	12%
Remain unchanged	19%	13%	19%	12%
Somewhat eased	7%	11%	11%	3%
Significantly eased	4%	4%	4%	0%
Don't know	55%	56%	53%	43%

[Back to text](#)

Table A-27: Extent to which lack of expertise to develop policies is a barrier to developing energy policies, among jurisdictions statewide that have not at least considered energy issues

	Jurisdictions statewide that have not at least considered energy issues	Low income, Rising Tide, or Coal Plant	Upper Peninsula jurisdictions	2019 MGC participants
A significant barrier	44%	55%	56%	*
Somewhat of a barrier	21%	13%	18%	*
Not much of a barrier	7%	5%	4%	*
Not a barrier at all	8%	9%	0%	*
Don't know	20%	17%	22%	*

*Note: All MGC participants said their jurisdiction had at least considered energy issues.

[Back to text](#)

Table A-28: Extent to which costs associated with developing policies are a barrier to developing energy policies, among jurisdictions statewide that have not at least considered energy issues

	Jurisdictions statewide that have not at least considered energy issues	Low income, Rising Tide, or Coal Plant	Upper Peninsula jurisdictions	2019 MGC participants
A significant barrier	42%	53%	50%	*
Somewhat of a barrier	22%	14%	16%	*
Not much of a barrier	8%	5%	10%	*
Not a barrier at all	7%	11%	2%	*
Don't know	21%	16%	22%	*

[Back to text](#)

Table A-29: Extent to which lack of interest among residents is a barrier to developing energy policies, among jurisdictions statewide that have not at least considered energy issues

	Jurisdictions statewide that have not at least considered energy issues	Low income, Rising Tide, or Coal Plant	Upper Peninsula jurisdictions	2019 MGC participants
A significant barrier	27%	33%	22%	*
Somewhat of a barrier	23%	22%	28%	*
Not much of a barrier	12%	5%	11%	*
Not a barrier at all	13%	20%	11%	*
Don't know	25%	21%	28%	*

[Back to text](#)

Table A-30: Extent to which lack of interest among local officials is a barrier to developing energy policies, among jurisdictions statewide that have not at least considered energy issues

	Jurisdictions statewide that have not at least considered energy issues	Low income, Rising Tide, or Coal Plant	Upper Peninsula jurisdictions	2019 MGC participants
A significant barrier	20%	18%	17%	*
Somewhat of a barrier	28%	27%	27%	*
Not much of a barrier	17%	21%	21%	*
Not a barrier at all	14%	16%	11%	*
Don't know	22%	19%	24%	*

[Back to text](#)

Table A-31: Extent to which other priorities that are more important are a barrier to developing energy policies, among jurisdictions statewide that have not at least considered energy issues

	Jurisdictions statewide that have not at least considered energy issues	Low income, Rising Tide, or Coal Plant	Upper Peninsula jurisdictions	2019 MGC participants
A significant barrier	42%	37%	45%	*
Somewhat of a barrier	20%	24%	15%	*
Not much of a barrier	8%	7%	9%	*
Not a barrier at all	11%	13%	6%	*
Don't know	19%	19%	25%	*

[Back to text](#)

Table A-32: Likelihood of beginning to look at energy issues within the next 12 months, among jurisdictions statewide that have not at least considered energy issues

	Jurisdictions statewide that have not at least considered energy issues	Low income, Rising Tide, or Coal Plant	Upper Peninsula jurisdictions	2019 MGC participants
Very likely	3%	5%	1%	*
Somewhat likely	7%	9%	4%	*
Neither likely nor unlikely	15%	14%	14%	*
Somewhat unlikely	10%	5%	5%	*
Very unlikely	54%	47%	63%	*
Don't know	12%	20%	12%	*

*Note: All MGC participants said their jurisdiction had at least considered energy issues.

[Back to text](#)

Table A-33: Whether more resources would make a difference in consideration or adoption of local policies regarding energy issues, among jurisdictions statewide that have not at least considered energy issues

	Jurisdictions statewide that have not at least considered energy issues	Low income, Rising Tide, or Coal Plant	Upper Peninsula jurisdictions	2019 MGC participants
No, it would not make a difference	34%	24%	34%	*
Yes, somewhat of a difference	31%	33%	27%	*
Yes, a significant difference	9%	12%	12%	*
Don't know	26%	31%	28%	*

[Back to text](#)

Table A-34: Percent of jurisdictions with policies to fund or incentivize the use of electric vehicles (EVs)

	Statewide	Low income, Rising Tide, or Coal Plant	Upper Peninsula jurisdictions	2019 MGC participants
Have not considered EV policies	61%	56%	55%	36%
Are currently considering EV policies	3%	3%	3%	30%
Have considered, but will not enact	1%	2%	1%	0%
Have considered, and plan to enact	1%	3%	1%	3%
Have enacted EV policies	1%	2%	1%	28%
Don't know	3%	3%	3%	3%
<i>Not asked - energy policies not at least considered</i>	30%	31%	37%	0%

[Back to text](#)

Table A-35: Local officials' assessments of whether their jurisdiction has the right number of publicly accessible EV charging stations

	Statewide	Low income, Rising Tide, or Coal Plant	Upper Peninsula jurisdictions	2019 MGC participants
Too many	1%	0%	0%	0%
About the right amount	22%	18%	20%	21%
Too few	29%	36%	32%	60%
Don't know	48%	46%	48%	19%

[Back to text](#)

Table A-36: Local officials' interest in intergovernmental collaboration on recycling programs

	Statewide	Low income, Rising Tide, or Coal Plant	Upper Peninsula jurisdictions	2019 MGC participants
No interest in intergovernmental collaboration	15%	8%	16%	5%
Don't currently collaborate, but would be interested	36%	42%	43%	17%
Currently collaborate with other jurisdictions	38%	37%	26%	72%
Don't know	11%	13%	16%	7%

[Back to text](#)

Table A-37: Local officials' interest in intergovernmental collaboration on non-motorized or public transportation

	Statewide	Low income, Rising Tide, or Coal Plant	Upper Peninsula jurisdictions	2019 MGC participants
No interest in intergovernmental collaboration	41%	33%	43%	3%
Don't currently collaborate, but would be interested	25%	37%	28%	38%
Currently collaborate with other jurisdictions	17%	16%	9%	44%
Don't know	18%	14%	20%	15%

[Back to text](#)

Table A-38: Local officials' interest in intergovernmental collaboration on green purchasing programs

	Statewide	Low income, Rising Tide, or Coal Plant	Upper Peninsula jurisdictions	2019 MGC participants
No interest in intergovernmental collaboration	32%	22%	32%	6%
Don't currently collaborate, but would be interested	44%	54%	46%	57%
Currently collaborate with other jurisdictions	7%	7%	3%	27%
Don't know	17%	17%	19%	10%

[Back to text](#)

Table A-39: Local officials' interest in intergovernmental collaboration on shared staffing for energy issues

	Statewide	Low income, Rising Tide, or Coal Plant	Upper Peninsula jurisdictions	2019 MGC participants
No interest in intergovernmental collaboration	45%	36%	41%	15%
Don't currently collaborate, but would be interested	28%	39%	34%	62%
Currently collaborate with other jurisdictions	3%	4%	1%	6%
Don't know	24%	22%	24%	16%

[Back to text](#)

Table A-40: Local officials' assessments of climate change, Fall 2019

	Statewide	Low income, Rising Tide, or Coal Plant	Upper Peninsula jurisdictions	2019 MGC participants
Very serious problem	28%	33%	22%	63%
Somewhat serious	26%	24%	27%	31%
Not too serious	21%	20%	23%	0%
Not a problem at all	17%	13%	24%	3%
Don't know	7%	10%	4%	3%

[Back to text](#)

Table A-41: Local officials' assessments of global warming, Fall 2010

	Statewide	Low income, Rising Tide, or Coal Plant	Upper Peninsula jurisdictions	MGC Participants
Very serious	18%	19%	19%	N/A
Somewhat serious	34%	41%	28%	N/A
Not too serious	19%	10%	14%	N/A
Not a problem	20%	20%	28%	N/A
Don't know	10%	10%	11%	N/A

Source: Fall 2010 MPPS

[Back to text](#)

Table A-42: Local officials' assessments of the federal government's responsibility for taking actions to address climate change, Fall 2019

	Statewide	Low income, Rising Tide, or Coal Plant	Upper Peninsula jurisdictions	MGC Participants
A great deal of responsibility	51%	53%	44%	82%
Some responsibility	28	28%	28%	11%
No responsibility	14%	11%	20%	3%
Don't know	7%	7%	9%	3%

[Back to text](#)

Table A-43: Local officials' assessments of the state government's responsibility for taking actions to address climate change, Fall 2019

	Statewide	Low income, Rising Tide, or Coal Plant	Upper Peninsula jurisdictions	MGC Participants
A great deal of responsibility	36%	39%	29%	59%
Some responsibility	42%	41%	41%	34%
No responsibility	15%	13%	21%	3%
Don't know	7%	7%	9%	3%

[Back to text](#)

Table A-44: Local officials' assessments of local governments' responsibility for taking actions to address climate change, Fall 2019

	Statewide	Low income, Rising Tide, or Coal Plant	Upper Peninsula jurisdictions	MGC Participants
A great deal of responsibility	16%	23%	18%	58%
Some responsibility	49%	48%	49%	32%
No responsibility	25%	19%	22%	3%
Don't know	10%	10%	11%	7%

[Back to text](#)

Table A-45: Local officials' assessments of whether promoting environmental sustainability is an important aspect of local government leadership by partisan self-identification, Spring 2019

	Republican	Independent	Democrat
Strongly agree	16%	26%	41%
Somewhat agree	44%	37%	42%
Neither agree nor disagree	25%	24%	12%
Somewhat disagree	7%	6%	2%
Strongly disagree	6%	4%	0%

Source: Spring 2019 MPPS

[Back to text](#)

Table A-46: Local officials' assessments of local government responsibility for addressing climate change, by self-identified political ideology, Fall 2019

	Conservative	Moderate	Liberal
A great deal of responsibility	8%	20%	38%
Some responsibility	45%	56%	48%
No responsibility	38%	16%	7%
Don't know	9%	8%	7%

[Back to text](#)

B. Appendix B: Ways Michigan local officials say they interact with their residents on energy

[Back to text](#)

UP Jurisdictions
Community forums, council meetings, planning commission meetings. They have been effective. We now have done several Energy Efficiency Projects and have Solar Arrays [REDACTED] KW at the Water Plant. A [REDACTED] KW Community Solar array as well.
Discussing the high electric rates in our area not very effective the utility raises the cost per kilowatt hour regardless
Little interaction on the topic.
Mostly through meetings or presentations with energy companies and by passing on information we receive regarding energy issues during township meetings
newsletter
Our representative is on site once a week for energy saving implementation for our community.
passing wind & solar ordinances using planning commission
Public meetings and not very effective as we seem to be made up of "for" and "against" and no one is changing their minds.
Semi-monthly township board meetings
There is a group called [REDACTED] that have been coming to the monthly meetings for 3 months now, concerned that the township will pass an ordinance that they are not happy with. Our Planning Commission came up with an ordinance, the township board decided that it is too restrictive. the PC is in the process of redoing the proposed plan..
They are talking about solar farms but the majority of the public doesn't want them.
Through city newsletters and annual reports from energy spokesmen at council meetings .
We have quarterly meetings of the Electric Advisory Committee which are open to the public and usually reported on by the local newspaper. The City publishes a monthly newsletter that contains Electric Department news as is appropriate. The Electric Department maintains a Facebook page.
We have worked with residents with our county wide wind ordinance and the planning of our solar ordinance
we use a message on our utility bill, we did a survey and a informational meeting
We've had open house meetings regarding the development and implementation of our Community Solar Program which we have just implemented, becoming the 3rd program in the [REDACTED], but the only one with both on bill financing and a Low-Moderate Income Qualified program. We send out mailers about energy efficiency programs offered through both the Village's Municipal Electric Utility and Efficiency United. We do a "Days of Savings" event, where residents can purchase deeply discounted energy efficient products through Efficiency United. We have planned and implemented an electric vehicle charging station. Established pilot programs using solar at our Water Treatment Plant, and LED lighting projects and HVAC upgrades in Village buildings. Built into our Master Plan and Zoning.
Worked with providers and energy savings/alternative energy proponents on hosting series of energy seminars for local community.

Zoning discussions for; dark skies-energy efficient lighting, placement of wood boilers, photo electric panels, height and locating of wind turbines, etc. We have addressed our zoning ordinance to allow for these undertakings within our Township.
MGC
2019 Energy Efficiency Day proclamation by commission and social media posts to highlight the topic and event Green Series at Library- usually one session discussing an energy topic Environmental Advisory Board is RO resident committee appointed by commission to advise about sustainability topics including energy
City promotes voluntary green pricing program, advocates for energy efficiency programs, promotes solar projects on city buildings/land, convene every 2-3 with energy stakeholders to discuss community progress as it relates to energy projects.
Depends on topic (some more than others), but includes press releases, community meetings, news media, face to face interactions, infographics and social media sharing.
In partnership with the City's Board of Public Works (that provides electric, water, wastewater and broadband services), we have adopted a comprehensive Community Energy Plan with specific metrics, interim goals, resources, and tactical teams to pursue actions to meet the established metrics. This Community Energy Plan was adopted after significant citizen input, and is a regular topic of updates and education so that the community can partner is initiatives to meet the metrics of the plan.
Information sessions on renewables and energy efficiency to different sectors (residential, students, commercial, ect). An Energy and Environmental commission where relevant presentations on GHG emissions, solid waste and water usage is often discussed. Creating bulk buy solar opportunities for community members. Exploring resilience hubs, and engaging community members through town halls on carbon reductions, creating policies that promote adoption of renewables and energy efficiency like a Time of Marketing energy disclosure and EV infrastructure, as well as creating programs to support the ordinances like offsets for vulnerable residents for energy audits and special programs for low income and the elderly population. We are also working on increasing our outreach to the commercial sector through green business challenge and promoting Electric Vehicle adoption. We also provide a Sustaining [REDACTED] together grant which is awarded to sustainability related programs. For more information on these and many more programs please check out the Office of Sustainability and Innovation's 5 year work plan at: [REDACTED]
Our Power & Light Department has informational pamphlets in the utility mailings as well as sponsoring a light bulb give away twice a year. We also go into our public schools twice a year & talk with students. If they can talk with their parents about be aware of the savings they can realize& have the parents sign a letter, the students win the contest & also receive a \$50 Visa card for the teacher.
Public forums, sustainability committee, newsletter
Social media
The city has a climate action plan, and is in the process of developing a sustainability plan. As a part of that process we are doing public engagement to identify issues and work with the community on solutions to challenges.
The Mayor has an Energy Advisory Committee of diverse stakeholders from across the community helping to advise the City on energy issues; through our participation in the [REDACTED], we are actively engaging with our Equity Partner, the [REDACTED], to design a program to better engage communities of color and low income communities in energy efficiency opportunities; we also partner

with our [REDACTED] District events and initiatives; in July, we launched a Community Collaboration on Climate Change - we just applied for a 6-month planning grant to create a 3-year plan to launch the pilot, which is focused on providing better connections across existing grassroots environmental organizations and between environmental organizations and communities of color. We believe these have been effective ways to engage residents and businesses on these topics and are looking forward to developing more specific resident engagement opportunities through the C4.
Through our Sustainable [REDACTED] Committee (residents, city staff and commissioners) energy issues are discussed and incorporated into our city's sustainability plan that was adopted this year. We are early in our implementation phase.
Through our utility billing process and the distribution of low energy-high efficiency lighting kits. We also offer energy optimization programs for both our residential and commercial customers. Our utility rates of some of the lowest in the region.
via Environmental Sustainability Commission which meets monthly which is effective for a small group of folks; intermittently throughout the year when issues/topics arise which is somewhat effective
We have an Environmental Commission that deals with these issues--highly effective. We have our own TV cable station that has programs on energy issues--very effective. We publish a quarterly magazine that includes articles on these issues--very effective. We require consideration of these issues in making planning decisions and in special use permit and building plan approvals--highly effective. We use social media, including Facebook and Twitter--highly effective.
We have an Sustainability Committee which hosts weekly educational sessions, facebook posts, community events, quarterly newsletter etc.....
We mention DTE Energy's programs. It is difficult to determine effectiveness of these efforts because Investor Owner Utilities in the State of Michigan do NOT share data with local governments
We share energy efficiency information from local utilities (incentives, opportunities) through newsletters and social media.
At-risk jurisdictions (non UP)
[REDACTED]- A community collaborative initiative to reduce energy waste and empower residents to be aware of clandestine activities Smart Energy District - implemented by [REDACTED]
almost totally by social media - main source used is Facebook
Casual discussions (one on one) with residents in the community. No formal discussions were held.
Changing over to LED lighting
Discussions at Public Meetings.
explain our energy policy to our residents
Facebook, articles to Council & boards
Have planned a generator for power outages so that residents will have a place to go for light, heat, water, bathroom
Invite them to public meetings for discussions, invite them to public presentations, classes on saving energy at local libraries and we will be starting a newsletter soon!
Recycling day is very well attended. When the Township built it's new facility it used many energy saving utilities to cut down our operating costs.
Residents in the village have various ways in their household for heating. Some heat their home with propane or fuel oil. The village recently has brought into town natural gas and very few have hooked

up with natural gas. Some are heating with wood burners, which is not accepted by a number of residents that live near those burning wood. It would be a great improvement in this village if burning wood was not allowed.
Village has sponsored onsite engagement meetings between residents and vendors who provide energy efficiency programs to small business and residential properties.
We communicate once or twice a year regarding conservation efforts or reference our internal efforts during public meetings.
We have a municipal utility that provides energy.
We mail out utility bills monthly, in those, we always have tips to lower utility bills for our residents.
We provide a quarterly news letter that is mailed to 5000 households and is available at 8 locations around the City. It identifies agencies, with contact information, that have energy efficient programs and funding to help low income citizens to help them pay for energy efficient furnaces, insulation, windows etc. minimally effective but has helped residents. (underutilized) .
We send out mailers four times a year with our News Letters for the Village residents. I believe that it is very effective with most of our resident on energy issues.
workshop and board meetings
Zoning office interacts on a monthly basis with residents inquiring on solar energy and wind mills (their description of wind turbines). New Zoning Ordinance section addressed alternative energy was recently approved by the planning commission and the township board.
All Other Jurisdictions
[REDACTED] is an electric utility provider. As a result, we must comply with PA 95, and we provide energy optimization support programs to all of the city's electric customers.
[REDACTED] Township has had residents and energy officials attend our meetings and speak on the topic of renewable energy and how those industries may/should be regulated in the township. The Township has placed a moratorium on new energy installations until an updated ordinance is passed addressing the subject.
2019, new commercial wind ordinance 2019, new commercial solar ordinance 2019, new small scale solar ordinance
Answering questions pertaining to solar energy.
Articles in our quarterly magazine [REDACTED] and social media posts.
Assist with questions regarding issues relating to Wind Energy, turbines etc. Provide information to other Townships regarding Wind Energy. Support Wind Energy Companies in their efforts to expand Wind Energy. All of these have been very effective in Supporting the Wind Energy programs.
at our monthly board meetings
At public comments during township meetings
At township meetings. Effective for the limited few who are there.
At work sessions and board meetings a couple times a year
Board meeting, open public hearings, master plan updates, emails, postings, website and face to face at township
board meetings, newsletters,
Board Mtgs Sustainability group Business mtgs Individual discussions

Consideration of ordinance amendments, e-mail and social media posts regarding energy efficiency topics, promotion of Consumers Energy efficiency rebate programs.
Council meetings and face to face discussions.
Currently addressing zoning issues for solar and wind usage zoning requirements and regulations.
Developed ordinances for both wind and solar and they have been followed.
Discussion at Planning Commission meetings about possible Solar Ordinance Currently updating Master Plan and using a community survey including energy issues
Discussion on Solar and Wind energy have drawn up Ordinance to help residence and commercial project be able to move forward.
Discussions with individuals on a one to one basis. Discussing how to lower energy bills by switching out to LED bulbs, as well as how to conserve during high heat days.
DTE news letters
DTE power outages
Electronic newsletter, social media and face to face meetins
E-Newsletter, Facebook posts. Greater [REDACTED] Area Chamber of Commerce Environmental Council (Provide a Staff Liaison)
FaceBook posts forwarded from various energy partners; displays of informational flyers/publications on our Website; Email 'blasts' to targeted recipients; developing and passing ordinances on wind/solar energy propagation. I think they've been about as effective as one can expect of our modern societies' ability to absorb this type of information from their government.
Give them the contact person for gas extension
Included articles in newsletter and eblasts about ordinance changes that permit solar panels on residential properties and encouraging LEED certification development in the City with economic incentives.
Last year, the City created a Sustainability Commission made up of local experts and residents to make recommendations to Council on ways to improve sustainability in the City. The report is anticipated to made to Council this month. Additionally, the City owns and operates its own electricity department. We have increased our alternative energy purchases in response to resident input and feedback.
LED Lighting
LED lighting upgrades, recycling. LED conversion is ongoing as is recycling. Both are effective.
LED street lighting, many installations by Consumers energy who owns the street lights. solar panels, a number of installations at both residential and commercial sites.
Light bulbs, appliances and other energy efficient opportunities
limited interface on energy issues with residents. Effectiveness is difficult to measure.
Monthly township board meeting often questions will arise
Most recent notices have been in the area of recycling efforts with e-alerts, web posting ad social media
mostly on tree trimming issues - we notify them as we have had various power outage
News letter
News letter and on our web site along with a lighted sign.
Newsletter
Newsletter...minimal

Newsletter; Social Media posts; Cable programming.
Newsletters, Social Media, Printed Materials, Moderately effective
Open forum for discussion on topics of interest. Energy efficiency/clean energy is always a topic we look to expand upon.
Open meeting
Open meetings on key issues and website to keep residents apprised of crucial issues
Our interaction is strictly in response to inquiries related to wind and solar energy. Our zoning ordinance is very comprehensive in these areas. We are always willing to work with anyone on issues in which we see a benefit, first and foremost, to our constituents.
Our Planning and Zoning Board has held public hearings regarding a solar energy ordinance. The hearings have been poorly attended by the public but the ordinance work continues to move forward.
Our Planning board is currently contracting with an external source to develop zoning ordinances that will qualify issues of wind turbines and solar farms both residential and commercial. Our planning board has regularly scheduled meetings and extra meetings to address these issues of which the residents are welcome to attend. We also post DRAFT zoning ordinances in reference to wind turbines and solar farms on our township website for residents to review at their leisure.
Our planning commission just wrote a zoning compliance for Solar panels. We have a solar company setting up meetings with our farmers to lease land for Solar panels. We will be adopting that ordinance at our next meeting
Our Planning Commission meets quarterly and has developed solar ordinances with our township attorney to benefit all.
placement of wind turbines, and towers
plan review and granting permits for solar arrays
Power Outage or major issues.
promoting alternative energy exploring ways to be an example for our residents promoting ways to conserve energy
Provide information in the lobby area. Share information on social media regarding issues.
public forum on solar electricity equipment and financing/ city web site and facebook... small turnout, wrong time of the year direct mail piece offering led lightbulbs and water saving devices.....works well, we usually sell out green energy pricing, mailed with tax bills and posted on city web site and facebook.... not much interest, only 30 ppl. or bus. have signed up
Public hearing on solar farm development. Very effective, the solar farm development is moving forward for 2020
Public hearings
Public hearings and board meetings, including developing potential zoning ordinance amendment(s).
Public hearings on residents questions and concerns.
Public hearings related to Solar Energy proposals within the township.
Public hearings.
Public Meetings on wind, solar and fracking. Some meetings were well attended.
Public Meetings regarding energy audits and potential energy project and modifications to the City use of energy. These are televised and broadcasted on the cable network.
Public meetings, mailings, web site articles

Public meetings. special meetings, bi-annual mailings, web page, newspaper articles As with any information we do our best to make the public aware of whats going on
Public Workshops. Quite effective
Putting in place a Solar Energy Ordinance and a Wind Turbine Ordinance. Very effective
quarterly newsletter to all utility accounts
Recently created a Wind Turbine Ordinance
regarding solar panels
Regular Twp. Board meetings and quarterly planning commission meetings
Replacing old lighting with LED, reducing white sky lighting and reducing hours, passing info along via website and newsletters on energy saving initiatives, encouraging solar
Residents generally speak with the Township Supervisor. It is sufficient.
Showing them the Township's investment in Solar Energy, the paybacks. Working with Homeowner Associations to partner with DTE on LED street lighting.
Starting in 2008 and running until we passed the latest revisions to the zoning ordinance this past summer, we have "fought" with the citizens of our community over language which would regulate placement of certain energy creation devices on private lands. EEK it was a crazy long ride. During the height of that discussion, we were interacting monthly with citizens. There was a great push from several to ferment citizens to come to board meetings and comment extensively. We tried to use all practical methods to communicate, newsletters, phone calls, door to door, twp website, etc.
Survey township newsletter
Surveys, social media activity and interacting with energy providers on behalf of residents.
TALKED ABOUT SOLAR FARMS AND WIND FARMS
The Board will discuss energy issues with residents during a Township Board meeting.
The City has implemented varies energy projects including LED street lights and planning for a solar farm. We have kept the residents informed by varies means including making energy a main portion of the State of the City address. One of the main issues facing our community is long term planning for municipal solid waste. We currently have a waste to energy facility but need to make decisions to plan for the next 50 years.
The City sees occasional permits for solar panels for residents as well as businesses. The City provides guidance on how these elements are to be installed.
The City's Environmental Commission has hosted a website specific to environmental items.
The main interaction has been resident voicing the statement they do not want wind turbines in the vicinity of their property. There has been strong opposition to wind energy
The Mayor/city conducts Town Hall meeting on a quarterly period which are held on Saturdays that allows the city residents input. This is a open meeting that allows the residents input on any item related to the community.
The residents call to discuss how they can receive natural gas.
These things are discussed at meeting on a regular basis, because we are currently involved in trying to approve an ordinance amendment to our zoning ordinance for wind energy farm being built in [REACTED] County. Our amendment is up for a vote in November.
They are welcome at any planning commission meeting and we will be having a public hearing shortly with invites sent to all residents
Through a township newsletter.

Through review of our master plan and planning commission meetings.
Through special meetings and hearings as the issue arises.
Through the use of our Environment Advisory Committee, we have engaged with residents in a very traditional sense in order to develop a City Energy Plan, which was adopted by City Council in August. We will be further engaging with residents in our upcoming Master Planning process and utilizing the feedback from the Energy Plan we have already received.
Through zoning and planning matters, and matters regarding the Fire Dept.
We adopted a new commercial solar ordinance, are working on natural gas turbine power plant ordinance. We have two commercial companies installing solar fields. They have purchased or leased 3,600 acres in our at this time and will start installation of 1.2 million panels this next year.
We are active in providing electric power to our citizens to both residents and commercial. We have a history of more than 100 years of energy production and almost 100 percent reliability. Since 2008 our U.S. and State government has been working against us. The clean energy movement is ill advised and driven by special interests. The aim is to push us toward socialism and destroy the U.S. leadership in the free world. Few people are smart enough to know that energy has increased 1000 percent over the last 50 years and income falling behind in purchasing power. The government of the people, by the people and for the people has all but disappeared and fearing for their own existence and their children and grandchildren.
We are actually a very small community and do not have the flexibility to invest the large dollars necessary for more energy saving infrastructure such as solar panels, electric cars, charging stations. We have 2 (total) municipal buildings- Village Hall and our Public Safety Building. Our energy saving focus in our buildings is zone heating and cooling for areas of the buildings that are not being used. I would like to ask a question for your consideration. If we had a large portion of this country change from fossil fuels in their automobiles to electric....what would happen to this nations electric grid? I am reminded of brown outs in the dog days of summer when the grid gets overloaded with too many people running their air conditioning. There is this huge push for making huge, expensive changes in the short term for essentially ..everybody...whether it is a persons home, vehicle or community buildings, automobiles etc. I have heard almost zero discussion on the consequences of suggested mandates.
We are home to [REDACTED] owned and operated by [REDACTED]. We have had many opportunities to have dialogue with our residents and property owners during the concept, design, construction, and operation of the wind farm.
We are in the process of having wind turbines erected in the township. Prior to having them here, there were lots of public meetings.
We conduct public hearings each year on street lighting. We also adopted a new ordinance on solar energy this year.
We developed ordinances regarding Solar Energy and Wind Energy
We don't have much interaction.
We had a dozen or more public meetings while refining our wind and solar ordinances in the township to ensure all of our residents were properly Protected. Our top priority was to ensure the Health, Safety, Welfare, and Property Rights of all of our residents were As safe and fair for everyone as possible. Way too many communities are being overrun by developers who threaten To sue communities that write safe regulations. As community leaders it is our responsibility to see past the greed And to protect everyone, even if it means not making a few extra dollars.
we have a newsletter twice a year with various articles

We have a quarterly newsletter if needed
We Have a solar powered consumer drop off recycling center. This is open 24/7 365 for township residents.
We have a wind energy- 14yrs and solar energy-1 yrs- zoning ordinance.
We have discussed this issue at our regular meetings for the last two and one half years. We also send an informational letter with the bi-annual taxes notices and have had all of the public meetings required by law for this issue. We have also enacted a wind energy ordinance. We are in the process of working with [REDACTED] to construct approximately 60 wind generators in [REDACTED] Township for electricity production. As for the effectiveness of this approach, we have noticed that some people ignore the notices and information offered until the process is approved and underway before they tend to get concerned.
We have done communication about ways to upgrade our utility management systems to be more efficient We recently upgraded all street lights to high efficiency LED's and had to communicate with the residents about this project
We have extensive and ongoing wind energy development with multiple public hearings for the project(s).
We have had a few town hall meetings that talk about the solar panels on our Fire Station, how the new Public Works building will be energy efficient (with solar panels), as well as at events, such as Earth Day.
We have invited speakers on the issue to township meetings and made them very public.
We have undertaken a project to replace all existing street lighting with LED lights. The project will save \$85,00000 per year and pay for itself in under 5 years. It also improves the lighting provided by the street lights. This has been a point of discussion at City Council Meetings and articles in the local newspapers.
We have wind turbines in our Township and answer questions on a daily basis about them people are interested and we as a township feel that they are a good thing
We help residents with the Consumers Energy buy back plan for old appliances. We have installed new HVAC systems and have also installed LED lighting inside and outside. Our Planning Commission is working on Solar Farming and are reviewing our Wind Farm Ordinances.
We interact through township newsletters, handouts, the Township website, and at township meetings. We believe residents are more engaged in energy issues and we think this has help with energy issues although we have no way to measure this.
We passed a wind energy ordinance recently.
We provide energy efficiency rebates to residents and business for the implementation of various energy efficiency upgrades and improvements. We offer a voluntary green power program for residents. We procure renewable energy (solar, wind, landfill gas) to supplement the City 's overall power supply requirements. We provide energy education to students in our public and private schools. All the above-mentioned initiatives have been very effective.
We publish a Quarterly newsletter to all residents informing them of various tips on energy\water usage topics and ordinances that we have passed regulating Solar farms, etc...
We replaced all our street lights with LED. We built the new city hall with thermal heating unit. The DPW department burns cut tree branches to heat its garage. Also re-uses vehicle oil in an oil burning furnace. Clear windows were built in the roof to cut lighting costs. A city commission works on improving recycling. We provide energy saving tips in our quarterly publication that goes to all homes.
We send out semi-annual Newsletters and includes information on various issues including LED lights.

<p>We talk with our residents via newsletter that is included with their tax bills. We are very small in population and feel that this is the best way to interact. We also have open meetings and welcome all residents to attend the meetings and discuss whatever issues they have in regard to the township. Periodically we do put information in the local newspaper or on the radio.</p>
<p>We've installed geothermal, making sure people are aware of. Our park has solar self-composting "e-loo" toilets and solar lighting, promoting awareness of. We are reducing the size of areas that we mow, to conserve energy and invite residents to consider same. We've adopted formal positions supporting policies encouraging solar and wind on private spaces.</p>
<p>When a resident comes to the township with an issue regarding energy we work with them to resolve issues</p>
<p>when companys pull permit in other parts of the county</p>
<p>when our township was a target for wind energy we informed the citizens and they took a stand not to allow it to take place. We worked with them to stop it.</p>
<p>When we are replacing items, it our policy to consider green initiatives.</p>
<p>Wind & solar are hot topics in our Township right now. So it is every meeting and contacts in between.</p>
<p>Wind Mill = the Twp. held several public hears, an advisory committee, planning commission meetings over an 8 month period to develop an ordinance. Solar = The Twp has begun planning for an ordinance with the planning commission and public hearing beginning around the first part of 2020. All Twp business is handled at public Twp Board meetings monthly.</p>
<p>Working on zoning for solar energy farms and solar panels for residential use</p>

[Back to text](#)

C. Appendix C: Ways jurisdictions are likely to alter their approach to planning and/or zoning on energy issues within the next 12 months

[Back to text](#)

UP Responses
A re-licensing of the City's hydro dam.
Currently reviewing and updating our Master Use Plan and doing the process there has been discussion relating to zoning and energy alternatives which has been very positive. Therefore, the ideas and thinking process has begun to at least discuss changes as part of the Master Use Plan update and the impact to zoning.
Currently the Township is reactive. We are watching what is going on around pertaining to solar and wind energy and are looking for guidance. We know it needs to be addressed but don't feel we have the knowledge/facts to make the decisions.
Hopefully we can work with our local college [REDACTED] to look at ways the Township and residents can utilize alternative sources for our energy uses. We pay the second highest rates for electricity in the nation.
I can not be specific, I just believe it will become part of the discussion.
In our budget for next year we are hoping to purchase and move toward energy efficiency street lights.
planning commission working on solar & wind ordinances
The county is working on getting out of county wide zoning and ordinance's and having our townships start doing it
we are a small township with a very limited budget. at this time I do not see much in the way of having to zone for energy projects. we have not had any concerns regarding this issue. thank you, [REDACTED]
We are currently looking for guidelines to adopt a solar energy ordinance and possible updates to our WECS ordinance.
We are currently revising our zoning ordinance. We will also be working on our Master Plan this coming year.
We are currently updating the County Master Plan and this is the appropriate opportunity to address the energy issues. Electric energy costs in this region are higher than much of the country. Alternative energy is a way in which to stabilize/reduce the high costs of electricity.
We are rewriting portions of our zoning ordinance with the assistance of a consultant. We will consider alternative energy as those changes are made.
We are updating our master plan to include those items.
We will be engaged in updating and modifying our Master Plan
We will soon have a new City Manager. The current manager hasn't addressed planning or zoning for energy. I am assuming the next manager might.
We would like to dress up our adopted international property maintenance codes to be renewable friendly. But honestly, no one will install because our energy production will go to subsidize [REDACTED]. IF there is net metering, we will get 8-10 cents a Kwh, but we have to pay them 27 cents. Without net metering, there is no reason for our residents to install (without a battery).

Working with paid consultants, our City is in the process of updating our zoning ordinance, which should be available for review in the next 6 months and hopefully will be enacted within the next 12 months.....so there is an opportunity to address these energy considerations.
At Risk Responses (non UP)
Changes to the City's Master plan may need to be made, in addition the City will need to make sure that it is in compliance to encourage the development of the Consumers Energy Smart Energy district.
City of [REDACTED] is currently reviewing its ordinances and could include energy issues in proposed changes.
Consideration of basic options such as LED lighting in City buildings/ streetlights. Simple steps.
depending on interest for energy changes
Engaging further in research and training
Green Energy planning for the City infrastructure. LEED suggestions in Planning and possible tax incentives for energy efficient improvements.
New Mayor in 2019 may have elevated interest in energy issues.
Not sure however we do have new people on the planning commission so that may help
One of the goals of the Township that is included in the Master Plan is to promote green building practices and incentivize the use of pervious pavements, rain gardens, swales, alternative energy sources, and other best management practices. We will partner with new businesses to promote energy efficiency.
The planning commission is working on drafting a more comprehensive solar ordinance.
The City is currently looking at updating many ordinance issues that relate to size of buildings and adding language regarding energy and water efficiency.
The only thing that worries the Board is the introduction of Solar fields. We are working to set some guidelines and to work with the community for feedback on what they want. The thought is to set up acceptable areas for Solar Arrays but restrict them in certain zones.
Update of master plan will require review of zoning areas
Updating Master Plan to incorporate energy issues.
We are a "poverty level" community, we work very hard to educate our residents on the importance of energy preservation, conservation, and usage. We will continue to urge residents to do the necessary things to lower energy usage, and charges.
We are currently adopting a new zoning ordinance.
We are currently finishing our new Master Plan and the City is starting the planning process for new zoning regulations. The City has received inquiries regarding solar projects and we are planning on addressing solar and other energy efficiency issues with our strategic plan and new ordinances.
We are currently in the process of engaging with [REDACTED] to rewrite our Zoning ordinances as part of our Redevelopment Ready Communities Qualification process through the MEDC
We are currently in the process of updating our master plan, which should be completed in the next 6-8 months. After that is complete we will be doing our zoning.
We are currently updating our 5 year plan, and I expect these topics to be considered/included

We are currently updating our master plan and sustainability planning was cited as a primary goal for the new plan. We expect that in the coming year we will make changes to our zoning code accordingly to match the recommendations that come out of our master plan process.
We are in the final process of updating our Master plan and Zoning map.
We are in the process of updating the zoning.
we are now going thru all complete ordinance book. could be discussed.
We are updating our master plan and with a recently new zoning ordinance passed we are in a position of tweaking it to better fit our community. We have made as part of our 2020 goals to seek sustainable energy sources to reduce costs. There has been some interest in creating a sustainability board to address issues to make us more environmentally friendly.
We are working to attract a solar energy project on a portion of a former coal fired power plant. The future of this project looks promising and one developer has shown serious interest in the project and is very likely to commit before the end of 2019.
We currently do not have a plan to implement energy concerns
We have entered into a joint planning agreement with the village of [REDACTED] so we will be creating new zoning ordinances and a master plan. It is very likely that we will include energy issues in the process especially if templates and the like are available
We recently incorporated solar panels as an accessory structure in our zoning ordinance. We are interested in more innovative opportunities for our community.
We will definitely have some information that will address solar type arrays in the City. Also ability for such energy efficiencies into our zoning for private business and homeowner uses.
We would like to see solar panels and small scale turbines to help with energizing most, if not all, our buildings within the Village. Within the next 12 months we would like to start having a few buildings using solar or wind energy to power some buildings.
With all of the Water regulations approaching, staff has been concentrating on those issues. While energy needs more focus it will likely take longer than 12 months to implement.
MGC
City's current (1960) code will be updated to new zoning code (has already been approved by [REDACTED] Planning Commission). We are looking to take the new zoning code to Council at the end of October. The new code addresses solar and wind energy.
I think that we will begin to acknowledge the role of zoning for energy efficiency and green energy generation. Currently, this is treated as a utility issue rather than a community issue; I sense that will change.
If the issue arises in one of their meetings, I know the board would research the issue. Our board is very aware of things that are changing in our city, our county as well as the world.
It's going to be more of a topic once we approve our climate action plan in 2020.
New master plan revision currently underway and will be completed in early 2020. Anticipate various references to transitioning to renewable energy approaches and energy efficiency measures for city operations
This will be demand driven by industry and perhaps residents. The presence of the University here may encourage more dialogue as they try to meet their energy requirements over time..Built infrastructure is obtrusive and in some cases interferes with current use of property.

We are adopting a new zoning ordinance and dealing with these and many other issues in the next year.
We are planning to look at land use soon, and we will address's it's then.
We are updating our Master Plan and adopting a Sustainability Plan. We will work toward the implementation of those goals identified.
We have been working on SolSmart certification and have identified some areas, through that process, that we may want to continue to work on.
Finalization of energy study and implementation of suggested actions
In the next 12 months, we will begin the process of updating our 20 year Master Plan and climate change and energy will be key topics for the next Master Plan.
Not sure at this point, we have just starting looking into solar for the Village and expect to be looking at the possibility of what needs to be done for residential use.
specific language to encourage and regulate solar energy residentially and commercially;
There are constant opportunities that present themselves revolving renewables and energy efficiency as adoption has increased throughout our community. We recently reduced the permitting costs for solar at commercial locations and streamlined residential permitting to have zero fees. More recently we confronted concerns about ground mounted systems and now we are exploring solar access laws. Planning and zoning is integral to us moving the needle for adoption and reducing barriers.
We are currently taking on the 5 year review of our Master Plan. Since sustainability is an overarching theme of the plan, energy will be a major topic for our Planning Division to review
We have a series of Preservation public forums scheduled for January along with a Sustainability conference in April, which will dictate our next steps
We recently approved a revolving energy fund for City facilities, that may impact localized planning for energy improvements. The goal is to look to expand the REF to the community after a few years. Also, we are looking to include more climate change and resiliency planning into our updated master land use plan slotted for improvements in one year, so planning for that will occur of this next year.
All other jurisdictions
Continued support for alternative energy sources. Will be issuing a Climate Change resolution in November.
Planning commissioners are working on a Solar ordinates for [REDACTED] County, should be finished within the year .
We are working on changes to our zoning ordinances related to solar energy developments.
We do not have jurisdiction over zoning of our local municipalities. However, we encourage sustainable practices and could add to our recently updated master plan.
With the increased solar and wind activity, more and more townships are taking up the discussion and their individual planning commissions are collaborating on the lates zoning verbage. We do not have County wide zoning and most likely will not have it due to 6 of our townships being dead set against it. We are working with them, but most likely will not change their minds.
[REDACTED] Township has been contacted more frequently concerning solar panels and solar farms in the area. We have to address this issue.
[REDACTED] Township in the last year has [revised our land use plan, next year we will be revise the Zoning & Planning Ordinance

[REDACTED] Township is not currently zoned. We are pursuing incorporating zoning into our township and it is being driven primarily by concerns for regulation of energy projects.
[REDACTED] TWP. is currently in the posses of getting some wind mills in the southern end of our township. When this starts to happen next spring i,m sure there will be issues that need to be dealt with.
About ready to adopt solar ordinance
Adding a zoning amendment addressing rooftop solar systems and other solar systems.
Addressing questions from the business sector.
Adopting a new commercial natural gas turbine ordinance.
As a small Village, wind turbines are not a viable option to promote, and we do not have space for major solar. However I find it odd that the DEQ (EGLE) mandated a waste water treatment plant for our community that more than tripled our fossil fuel dependency rather than a direct discharge to Lake Michigan. we can cut our energy bill and run our plant more efficiently cutting electric bill with some regulation reductions in other areas. This needs to be in balance and it is not.
As new ways of producing and using energy changes, the village must adjust accordingly.
As we review our master plan, utility scale energy needs to be examined.
Basically looking for any new ideas, especially in the residential and agricultural areas.
become a more pressing topic
Better lighting
City is currently working on Master Plan update and will follow with ordinance develop. Energy use and efficiency will be part of that discussion.
create an ordinance on solar farms and recommend it to the board to approve.
Creating ordinances for solar energy
Currently developing solar and wind ordinances. Reviewing master plan for zoning to acommdate green energy.
Currently under a Master Plan review and this could be addressed/encouraged through this process
Currently updating Master Plan will likely adopt a Solar ordinance
Currently updating the Master Plan, energy will surely be a factor in the new plan
Currently we don't have zoning regs concerning wind or solar. We have just started working on ordinances relating to these issues.
Currently working on ordinance
Determine a plan that directly addresses wind and solar energy use beyond a single household.
discussions about solar energy are on going with the anticipation being that solar energy will become reality.
Discussions to increase solar within the Village is among the most likely to be discussed further.
Do not anticipate any changes as we just completed a solar farm project through the Township Board and the ZBA and the Planning Commission
Don't believe it will change much.
expect to see more demand for agriculture solar panels.
Exploring potential zoning ordinance amendments to facilitate the use of sources such as solar.
Giving residents and commercial project basic guild lines to asset in developing there project.

have enacted new solar ordinance this year currently have one year moratorium on wind energy while developing a revised wind energy ordinance
Hiring a new City Manager who will need to get their feet under themselves before moving to energy issues.
Hopefully we will become more proactive in providing incentives for energy efficient development
Hopefully, more proactive.
I am also a member of the Zoning Board and will bring up solar panels and other residential energy issues at our next Zoning meeting in January to make sure we are staying up to date and I would like to see our village encourage residents to utilize green energy. We are having issues with an outdated electrical grid and equipment failures causing electric outages that last for days.
I am sure that we will address solar farms.
I expect we will add a zoning section relating to solar energy. Also, Q9 is a poorly worded question. My only choices are "our p/z does not address", "generally encourages", or "generally discourages". Having a zoning ordinance that addresses renewable energy, whether wind or solar, doesn't mean we either support or discourage renewable energy. To me it simply means we recognize that renewable energy is here and needs to be addressed in zoning. Please don't imply that we support or reject simply because we have covered the issue(s) in our zoning ordinance.
I feel that our Planning/Zoning Department has tried to keep up with energy trends and encourage alternative methods in our community. They are very open to hearing from the residents and taking their needs into consideration.
I have heard that no energy programs can come to our community without specific guidelines in place.. What do we need to insure that proper guidelines are in place?
I plan on requesting that the planning commission look into our current zoning regarding wind and solar units. If this area is not covered, then look into adding into our zoning and planning.
I see it being addressed but any recommendations will be stymied for lack of funds.
I THINK WE WILL BE DISCUSSING THEASE MATTERS MORE
If it is brought to the Planning Commission it will be discussed and investigated
If the company that is talking about coming to our area it could change a lot in the next 12-months. We will need to address our solar ordinance sooner than later.
IF WE HAVE ANY ISSUES WE WILL PROBABLY ADDRESS THEM
I'm not sure
implement changes in our Master Plan that is due for a review.
In the next 12 months it is the Twp's plan to have ordinances in place
Incorporation in new Master Plan adoption.
Just started discussing with Master Plan review.
Look at ways to reduce the carbon footprint. Require more tree planting and green space.
Looking at the future of EV vehicles, both consumer owned and Commercial usages. Reducing overall energy use for businesses and neighborhoods.
Looking at the possibility of zoning for solar farms.
looking into zoning issues regarding solar energy
me may have some residents that are looking into doing solar power.
More attention and engagement
More input into allowing solar production

More open discussion
New members to our planning commission may bring in new ideas for our master plan which will be updated in 2020.
Newer young people with new ideas.
No changes really
No significant changes
none
not likely, unless they are approached with zoning requests
Not much, unless it is on an issue like wind we haven't looked at yet.
Not sure. We are working on it now
ordinance changes
Our current ordinance is a bit dated and worked under the premise that utilities were necessary to support day to day living. Times have changed. With large solar and wind farms seeming to be the norm the Township needs to take a second look at what we want in the township. Our agricultural community does not want to look like an industrial energy site.
Our current planning and zoning certainly encourage residential level solar energy production but we do not have the acreage available in our City to encourage commercial solar energy production. Additionally, we certainly plan to continue encouraging green energy but we are not certain we will add any incentives.
Our Planning Commission has worked on solar and wind ordinance.
Our planning commission is currently looking at a solar ordinance example, for consideration. We realize that alternative forms of energy are gaining interest among members of our community. We need to have an ordinance to encourage alternative forms of energy and at the same time protect others. We have tossed around the idea also of offering a charging station for those with electric vehicles, but grants to help with funding in this area would be a great encouragement.
Our Planning Commission is currently updating our Township Ordinances. They are addressing solar panels and solar farms along with turbines. We have two wind turbines within our township and a few of the personal home solar panels. There is more interest in solar panels now. It will take time to get ordinances in place to monitor these energy items.
Our planning commission is working on a solar energy ordinance.
Our township has wind and solar ordinances in place and addresses residents questions or concerns as needed
Our utility scale solar and wind ordinances are out-of-date and would be challenging in addressing a new development. The City has looked at City-owned property for utility scale solar, but it doesn't have clear policies in how that would be reviewed and approved.
Over the next FY we will be conducting a revision of our Master Plan. In the new Master Plan energy issues will be addressed.
Planning Commission does need to look into this.
Planning Commission is currently looking into alternative energy sources, pros/cons, resident & business uses and other township zoning ordinances currently in place, what would they keep/change if they had to do it over again regarding alternative energy.
Planning/and zoning is currently revising the Zoning Ordinance to include solar and wind power.
really we are developing our approaches meaning there is not a whole lot to "change" right now. Our zoning policy is just now beginning to be completely studied for necessary changes, if any. While we

have some ordinances and policies toward solar and wind energies, the technology all can change so quickly we are learning and determined to remain current.
Recognizing locations in our township that may be used for utility approaches
Revising our Zoning Ordinance.
Solar amendment will be added
Solar farm wanting to come into our township.
SOLAR ORDINANCE
That depends if we are getting a lot of inquiries.
The City of [REDACTED] will be discussing larger scaled projects associated with solar. We cannot facilitate larger wind projects due to the vicinity of our airport. We are interested to learn more about "wave" generator systems or means associated with generating electricity by using our drinking water distribution system. We would also like to learn more about plasma arc gasification. Our primary goal will involve energy conservation and creating programs to better educate and possibly fund home improvement activities that will result in better energy efficiencies.
The City recently adopted an updated Master Plan that includes a new section with specified environmental goals that include: supporting increased use of renewable energy sources, supporting Green Building practices and Green Streets and supporting energy conservation practices among others. The next steps included reviewing the report from the City's Sustainability working group and to update City ordinances.
The City will likely further encourage alternative energy sources for both residential and commercial in appropriate situations, particularly commercial.
the county has banned wind power, we would like to have a local ordinance that allows it. Housing density and multi-family housing
The neighboring township is updating their energy policies. We are watching to see if any of their information will be helpful to us.
The Planning Commission is talking about putting an ordinance together for wind energy.
The Planning Commission is working with professionals to update the Twp's Zoning Ordinance to address alternative energy issues and create policies based on the newly adopted Master Plan.
The Village of [REDACTED] is beginning the process of updating its current Master Plan.
The Village will be updating the 20-year-old Zoning Ordinance and including current issues such as energy efficiency. We would appreciate any funding sources to help us be more energy efficient and embrace energy-saving technology.
The Zoning Committee is looking at an Ordinance concerning private land use for solar panels.
There are outside companies looking at our twp. for potential wind energy so this will need to be addressed soon
There have been other townships in our area approved to set up solar farms. I think this is something we should get ahead of and make sure if we have residents that want solar, wind or other energy sources that we are not an obstacle
There is definite community interest which will generate municipal encouraged interest
There is lots of controversy in [REDACTED] County for Wind Turbines. There is a coalition against wind energy and this is making problems for Townships to implement zoning regulations for wind energy. Waiting for consultants for zoning recommendations..
They are looking at options now in our new master plan

Under going a Master Plan update currently
Undetermined
Unless more training is provided highly unlikely.
UPDATING OUR ZONING ORDINANCE AND ENERGY WILL BE ADDRESSED.
very little
Ware are currently working with [REDACTED] to re-do our Master Plan - once that is done (winter 2019), we plan on having them re-do our zoning ordinances.
We are about to circulate a survey that asks residents about their attitudes on many issues, including energy and solar. Results of this survey will help drive the rewrite of our master plan. This rewrite will begin around Thanksgiving, I'm told.
We are addressing energy issues in the master plan update, scheduled to be completed first quarter 2020.
We are currently finishing our latest Master Plan, and then using a consultant to review the zoning for updates.
we are currently going through the plan - it would be helpful to have material available
We are currently in the process of developing ordinances regulating installation of solar energy system.
We are currently in the process of updating our community master plan. During the update process its very likely recommendations will be made by the Planning Commission to update our approach to planning and/zoning for energy
We are currently including energy (solar panels, wind turbines, in our new Master Plan.
We are currently reviewing all of our ordinances as we do not have a local Zoning Administrator. [REDACTED] Township uses [REDACTED] County Planning Department as their ZA.
We are currently trying to zone for wind farms and solar farms, in our ordinance. our wind amendment has been put to referendum vote once and will be again in November. The solar Public Hearing is in November.
We are currently working on our Master Plan and are interested in a solar farm for the abandoned mill area in [REDACTED]. We are currently looking at zoning changes for this entire property and are open to other uses besides industrial.
We are getting a Solar Ordinance together for our Township. Planning and zoning are working on this project with [REDACTED].
We are in the discussion stage...I don't envision changes to our zoning ordinance occurring in the next 12 months.
We are in the process of developing a solar farm policy, and already have a wind energy policy.
We are looking at proactive zoning for residential solar installations. We do not currently have any residential solar being built, but we .want to be prepared for the future.
we are redoing master plan and will address some issues in it.
We are revising our master plan and will address solar farms.
We are starting the Master Planning process and would like to include energy throughout this plan
We are starting update of Master plan
We are still in the process of approving ordinances. Then we can focus on where & when.

We are trying to keep proactive and see what's in the horizon for the township and the benefit of our residence in the next 12 months I don't know if we will see any changes we are currently engaging in win turbines and they seem to be working out pretty well
We are very busy with other initiatives. I would look out to 24 months for changes.
We are working on a revised Zoning Ordinance that will include provisions for small-scale wind, solar and bio-fuel energy production.
we are working on updating our master plan
We currently have zoning for wind and solar.
We do our best to stay current. As solar farms, wind turbines, etc. issues come to light we thoroughly review the concerns via our Planning Commission, professional planning services, and legal expert.
We have been discussing private wind turbans and must look at private solar power.
We have been watching what has been happening in the surrounding communities and will move forward as we learn more about what works and what does not.
We have been working on ordinances for wind and solar energy generation, for residential and commercial/industrial applications.
We have had discussions about possibly developing solar language for our zoning ordinance as solar is becoming a bit more prevalent in this area.
We have hired a consulting firm to update our master plan and we are considering hiring another consultant to review our zoning.
We have recently updated our Zoning and Ordinances and are currently creating a Master Plan, we would love to have additional information to incorporate into these documents.
We need to address commercial solar farms and how to regulate them.
We try to go with LED lighting when replacing our lights.
We will address windmills on private, public and commercial property
we will be adopting an ordance next week
we will be developing ordinances that address all energy issues - i.e. solar farms, wind turbines, etc.
We will be updating our Master Plan, which will include items like solar panels, LEED certification, etc. We will also look at storm drainage, rain gardens, density, etc.
We will be very aggressive as we seek affordable and reliable energy for our residents.
We will implement zoning ordinances that are succinct and complete so that there are no gray areas that lead to confusion. The intent is to ensure and validate the state mandate that the township boards responsibly protect the health safety and welfare of our community.
We will need to revise our master plan to include zoning for wind and solar farms. There is talk of them coming to our county and possibly [REDACTED] Township.
we will start discussing this issue.
We will work to establish zoning requirements for commercial districts and residential safety improvement policies and practices
Will adopt a solar ordinance this year
will attempt to address zoning for utility wind and solar
will be working with [REDACTED] township and Village of [REDACTED] to update our master plan with concerns to solar farms -wind farms-5G towers
WIND ORDINANCE
Zoning for single family home solar panels

Zoning on wind and solar is being developed

[Back to text](#)

D. Appendix D: Resources or state-level policy changes that the State of Michigan could offer that local officials say would assist their jurisdictions in meeting renewable energy goals or requirements

[Back to text](#)

UP Responses
Grants would be an option for us as we just do not have the resources.
Not sure
We have received MDNR support.
Yes! Please help us renegotiate with [REDACTED] or develop our own utility. The MPSC's oversight of [REDACTED] has been too lax. Our businesses, residents, and environment is struggling to support our current energy structure. We have several opportunity for wind, solar, geothermal, and micro-hydro within our small city. We have spoken to investors and they are unwilling to work with us until we are free from the monopoly.
State support can be important to getting a project implemented. We have utilized MDARD grants for planning and implementation of our Community Solar Project here in [REDACTED]. We have also found a partner in the Michigan Energy Office to help build a Low Moderate Income program as part of our project as well. When the State is a partner, we can do a great deal more. We are always happy to partner with the State on these types of initiatives.
With grant funding incentives we have funded efficiency and renewable projects in the Village. More assistance and continued assistance will fund more projects.
At-Risk (non-UP, non MGC) responses
100% grants
All of our renewable energy goals have been met for the current policies. Renewable energy need to be able to compete in the market without subsidies.
Funding sources for Methane gas capture and reuse.
Funding.
I am not certain at this time
no
Not at this time
Not at this time.
Public education and support from S.E. Michigan automakers who are investing heavily in electric vehicles would pay off big. While electric vehicles would exceed the expectations of most drivers, range anxiety prevents them from even considering the option of owning or leasing an electric vehicle. Until the public is convinced, local government efforts are largely fruitless. I would very much welcome and support pilot projects in our city.
Solar installation incentives to help with upfront costs.
Understanding the State's Goal and developing Plans to make necessary adjustments to meet the goal with available resources.
yes, subsidize the local power plant, that burns junk wood, that help keep our forest clean and keep brush fires in the local area at a minimum.

MGC Responses
Don't have an answer.
Funding
Funding assistance to help prompt first project
Funding opportunities
grants to explore possible feasibility studies for local solar projects, grants to feasibility studies to support a regional solar project.
Help with writing policy and setting renewable energy goals, help with siting renewable energy projects.
The scarcity of community or neighborhood level data is a strong limiting factor for setting aggressive renewable energy goals. Additionally, this survey doesn't offer the option about feasibility of installing renewable energy
We need policy's that promote renewable adoption. That starts with changes to the way that solar is taxed at the local level all the way up to issues with PURPA law and net metering. Moreover, need policy changes that promote utilities working with cities to implement innovative strategies to reduce carbon emissions as well as policies that help us implement energy efficiency measures across our City, especially as State policy restricts us doing thing beyond the state policy code.
Yes - require utilities to source energy from renewable sources; provide financial support for building solar for low-income families to offset the cost of utilities Require insulation and other efficiency improvements in existing homes, especially homes that are rented
All other jurisdictions
As always. Grant monies would be needed. We are a small rural Township.
Ask them - it does not seem to be a high priority in Lansing
Better funding for local governments to improve their infrastructure. Our municipal buildings are terrible at conserving energy especially heating and cooling, but budgets don't allow as much money as we would like to allocate to fixing and renewing our buildings. Truly Prop. A has greatly limited our ability to improve infrastructure by limiting the amount of property taxes we can collect even as the value of our city has skyrocketed following the recession.
Changes to the PA 116 to allow for commercial solar arrays to be built in agricultural lands. I believe Gov. Whitmer made an administrative change but better clarity on this issue would be helpful.
Community Solar-related legislation would be helpful.
Continue the net metering laws. Allow for State money to help pay or contribute to Counties and Townships to install renewable energy systems like solar fields.
Cost share for renewable energy options on public land
Do not know.
Don't know.
Economic development incentives to small businesses for renewable energy investment.
Funding or Grant along with technical assistance
Funds, Standards based on research/best practice, Facilitate opportunities for multi jurisdictional collaboration (e.g. cooperative purchasing, consultants, contracts, etc)
grant funding

Grant funding for LED lighting
Grant funding for public solar projects would be helpful.
Grant funding for various renewable energy sources.
Grants
Grants or matching
Grants. Since funding for cities is so limited for what we need for administration, fire, police, it is impossible to fund things we consider "fluff" like this.
I'm not aware of any.
Incentives, grants.
incentivize solar and EV charging station infrastructure
Information on pros and cons of them.
It is getting increasingly difficult to site utility-scale wind and solar resources in the State of Michigan. Local jurisdictions are rescinding previously approved permits or are not issuing new permits allowing construction of such facilities. This creates significant challenges in meeting the State's renewable energy mandates. A possible solution would be to allow procurement of out-of-state renewable resources in order for utilities to meet their mandated requirements.
Large scale net metering.
Make grants available for government building energy saving performance contracts. Make the 30% rebate for solar renewable energy available to government entities.
More education on availability of assistance and pros-n-cons of renewable energy.
N/A
No
no
No
Not at this time
not at this time
Nothing at this time.
Nothing at this time.
Our Village is a relatively small, economically modest community. We make every effort to increase our communities health, promote our economic viability, and enhance our environmental sustainability. However, we do so with a limited amount of staff, tools and funding. Increasing shared revenue and decreasing the growth of expensive mandates would be a great start in assisting a small community's ability to reduce energy waste and increase ways in which we can implement renewable energy solutions.
Perhaps in the field of hydro-electric generation to improve our current facility.
solar panels at waste water plant, small turbines, it would be nice if EGLE had programs available for this option. perhaps electric power public transportation options? if any of this is going to happen it will require capital investments on behalf of the State (EGLE)
State incentives for solar/wind renewables.
strengthening net metering laws and incentivizing government plans for renewable energy projects
We are now in the process of dealing with a solar farm entiety who wants to develop a farm in our township.

We can always use matching funds for our village projects.
Yes providing funding to help implement additional policy, studies, and projects.
Yes, a multiplier table for Wind Turbines approved by the STC, that that has a solid basis from a good appraisal study that both the Wind Energy Companies and Townships agree on.
Yes, incentives to change to LED lighting and more efficient lighting options at Village facilities.
You might consider dialoguing with the Michigan Association of Counties for a better State wide reach.

[Back to text](#)

E. Appendix E: Local officials' explanations of why local building inspectors struggle to enforce the current Energy Codes.

[Back to text](#)

UP Responses
[REDACTED] County has a budget in the red so I don't see them doing anything at this time.
Because we are [REDACTED], it takes additional time to get inspectors on site.
I think we have 1 building inspector shared by more than one county. Distance, budget, old buildings, and political will are obstacles for us. We would love to hire even a basic code enforcer. If we had a building inspector, I think they would struggle with the fuel mixes and independent nature of our public. We have all sorts of DIY heating rigs in the [REDACTED].
Issues: Only a few staff members for a county-wide building department, economically impoverished residents, cultural & social pressures. Maybe more awareness or information given to homeowners who apply, or have online resources such as a, checklist for energy efficiency, or provide incentives for energy efficiency through reduced taxes or fees.
More funding for training building inspector and to pay them.
No
Not enough inspectors here in the [REDACTED].
not sure
one person lots of area to cover
Our building inspector is a county government inspector. we are a small twp of [REDACTED] residents
Our inspector does not like to enforce the rules .
Small community
The homeowners and contractors resist change and any type of government regulated codes.
The remoteness of the community makes continuing education difficult. Additionally, Energy codes are enforced by a third party State Inspector, and they are not employees of the City.
The State of Michigan currently provides building inspection in the Village. They don't do anything but collect fees, then make inspections of building permits. They will not provide any other building code enforcement as required by the State Building Codes. They have never responded to any request to make inspect buildings for code violations. INCLUDING THE ONES IN OUR DOWNTOWN THAT HAVE COLLAPSED ROOFS!!! Rather than do their job and get on property owners to do something about dangerous buildings, they do absolutely nothing. The only way anything gets addressed is went the Village gets the property back on back taxes, then it costs the Taxpayers of the Village money to clean up the mess. If the State did it's job and enforced the building codes, the Village wouldn't have dozens of abandoned buildings in our small town. If the State did it job, the Village wouldn't have to spend tens of thousands of tax dollars tearing down buildings the State inspector should have addressed long ago. If the State did it's job, the Village would have a better tax base and no empty blighted abandon buildings in our downtown or elsewhere. If the State don't do anything, why should locals do anything? If the State of Michigan would enforce their building codes, like they do fishing licenses or a so called wetlands, would this question even be necessary?
Village doesn't have a building inspector. Only the County has a building inspector and to my knowledge, energy codes aren't a priority, but you would have to check with the County to get an accurate answer.

We currently do not have a full time electrical inspector; he is here on Thursdays only; little time for inspections.
We have One inspector for the whole county
At-Risk (non-UP) responses
?
Codes are too complex and don't always apply to the types of construction within our community
Energy codes are inspected by State inspectors
Lack of support and funding from the county officials.
More adequate funding from state,, more emphasis on the importance of the issue. Also conveying the importance of the issue to the local residents.
Not for sure
Not sure our building inspector is aware of the current energy codes.
Old fashioned. Not much education available.
one inspector to cover a fairly large area
Our building inspectors do not struggle to enforce the energy codes of the State of Michigan. Perhaps more education should be made readily available for our building inspectors in the event new information comes out.
Our county building inspectors struggle to enforce everything. We have a big county and lack of people to do the job so it takes long periods of time to get anything done.
MGC Responses
Time management is the biggest issue.
full understanding of the code.
I believe we struggle because other municipalities do not enforce the state energy code as much as we do and we are at a disadvantage for attracting some investments.
Lack of education and knowledge
All other jurisdictions
I think it's just the change issue. Meaning that several builders have been in bussiness for many years and see changes coming through that they most likely do or don't agree with, that makes it difficult to push homeowners to spend the money up front when there is a cheaper way of construction that has worked for years.
To have local governments adopt more Ordinance to direct the codes. Make it more user friendly. It is difficult to obeyed all the building codes. It is also expensive with all of permits and inspection fees. Would not want to building a home athis time.
?There are not enough inspectors.
[REDACTED] County contracts with a building inspection company, [REDACTED]. There has been problems with receiving timely services from this contractor. They spend part of their work week in [REDACTED] Michigan and part in the [REDACTED]. There has been staffing changes which further has caused problems too.
All townships in [REDACTED] County are part of county zoning, planning, land use. The inspectors are expected to be current and meeting the current codes. If the residents deem this is necessary to

move forward with energy reforms, then we need help with the planning and the funding. Currently, the townships do contribute to the zoning part of the county budgets.
Builders seem resistant to the energy codes because of the increased cost and the difficulty of meeting the codes.
Builders try to circumvent the rules
Changes being made and not able to keep up with new demands.
Codes that are poorly written require buildings be sealed so tight that mold and mildew become an issue. Subsequently, sensors are required and outside air must be mechanically introduced. These poor decisions seem forced by outside advocacy groups, groups funded by state and federal grants.
Done on County level not local
Don't know - building inspection is done at county level
Garages, Additions and accessory buildings. Clarification of the text
General knowledge about technology and methodology of how code applies.
Grants
Have never heard them speak about it.
I believe any struggle would be related to the fact that we are located at the far edge of the county. It is extremely rural and it is very difficult to enforce most codes and ordinances.
I do not know anything about the current energy codes
I don't believe they understand the formulas for the calculations.
I don't know of this struggle
I don't think they do !!
In our area it's not an issue
in our area many building are renovated without permits so the county has no idea if they are up to code.
Info is not totally clear, residents do not understand expectations, enforcement is difficult
It costs too much to enforce. Right now this village is being subjected to a frivolous lawsuit in an attempt to steal office space in a share building. It has already cost close to \$10,000 to defend our property & the matter is not settled. Small units cannot afford the cost of litigation for building inspection problems should the property owner choose not to comply.....\$10-20 K of legal expense to enforce a state code is not something we desire nor can afford
It is a challenge with older buildings. We look to make improvements were practical.
Just a hunch. Building inspectors are understaffed like everyone else in government for the increase and unlimited demands of the public and state legislators creating unfunded mandates that can't be obtained.
knowledge of standards or requirements
Lack of funds lack of interest
Lack of high speed internet in our area limits homes from going to "smart" homes. often things like on demand Hot water heaters do not work with well water.
Lack of understanding and training
Local ordinances and processes and also lack of information do not assist them.
Many inspectors question the relevance or efficiency of the "blower door" test. Some think that we are creating unsafe homes.
Money
n/a

N/A
NA
No money
no problem so far enforcing current energy code.
Not sure it is a struggle.
Not to my knowledge
One case in particular a man has built a Yurt in our Township and refuses to move forward with the blower door test though he has passed all other inspections. During his first test he failed by a small margin and was told what he needed to do to correct the matter but simply refuses to move forward. He has not received his OP and I believe he is staying there. We are currently looking into ramifications on the matter.
Our Building Inspector at the [REDACTED] Code Authority is confident at understand your area. However, keep them on your mailing list to get the most current regulations.
People don't appreciate the government telling them what/how they can build on their private property. Concerned about regulations that add expense but don't add value.
people/businesses cut corners
Properly permitting and enforcing codes for homeowner installed solar panel and small wind turbines.
Simply the cost and low economic environment\surroundings
Strict enforcement would thwart development in a depressed real estate market.
Struggle may be too harsh a word. The inspectors are vigilant to ensure that the buildings do comply. However some residents/builders try to cut corners on insulation, etc...
That answer is very simple. General Contractors are using any means possible to circumvent or avoid anything at all that will cut into their profit margin and/or raise cost of construction per sq ft. I see many new homes built "to code" but the building code is the minimum standard in reality. Building construction and materials used are typically defined only by first cost of a project with no thought given to a "best practice" approach to new construction. I recently built a new personal home and used building methods and materials which are almost completely ignored or unheard of in our county. In fact, I know of no other structure built in the manner I chose. Building efficiency results have been nothing less than amazing, with heating/cooling costs for my home running around 30 to 40% less than a similar sized home using conventional construction methods and materials. This is totally due to the type of HVAC system installed and the building method/materials used. (ICF walls from foundation to roof trusses)
The codes are constantly changing.
The cost of correcting violations of enforcement
The county does our building inspection. It is important to us that they ed enforce codes
The medical marijuana green houses have been an issue being compliant with the energy codes.
The problem has nothing to do with energy. It's leadership. People are just not trusting of any government official. Usually, the contact is a negative experience for them. After all, when is the last time a building inspector stopped by your home to bring you flowers and candy? Never. It is always an issue that causes a headache for the owner or money they don't have. Maybe if they appeared at the town hall meetings and passed out business cards and made themselves accessible in a neutral environment, they would have a better rapport within the community. Something to consider.
the State Building Inspectors is in charge of this - unknown what issues they have.
There is confusion what is workin and what is not . Nothing uniform for guide lines.

There is some resistance by builders and developers to meet codes.
They are overwhelmed at times and I do not think it is a priority but am not certain
They have their rules to inspect by
They receive training in updates to the codes.
This is a problem throughout the state with any inspectors. No matter what this is a challenge for an inspector. Assisting in enforcement is hard..
Too few resources to chase down every code infraction
Training and updates for there information
understanding what the options are and how to meet requirements
Undetermined
waterfront residential property owners want lots of windows for the view. They are often affluent persons that are willing to pay the extra energy costs.
We contract our building code and trades inspectors. There are too few inspectors to serve a community of this size. When they try to enforce the codes, they are sometimes met with opposition and that opposition routinely goes political. Most of the time we are successful but every now and then a prominent business owner causes political waves...but we get compliance eventually because I've taken a zero tolerance approach to skirting building codes.
We use the county building inspectors. Very undermanned in this county.
Would guess a lack of funding to learn how to understand better the need for the Codes, lack of experience.

[Back to text](#)

F. Appendix F: Specific ways jurisdictions would want to set stronger local energy codes

[Back to text](#)

UP Responses
We would want to implement progressive rate structures such as a budget-based increasing block rate. We would determine a reasonable minimum amount of energy per resident and then increase the charge beyond that point. This is essentially the opposite of the current structure, where large users of energy have a lower rate. But we would use the extra money for education, efficiency, and renewable projects.
More energy efficient buildings build a more resilient community, and add value to the home or business. While we haven't explored this, it may be something we would like to do if we have community support.
At-Risk (non-UP) responses
NA
Public Education. Introduction and enforcement of stronger energy code.
Stronger local energy codes for major/significant developments.
MGC Responses
Requirements for insulation and energy efficiency in existing homes - especially in rental housing as well as in other commercial buildings
The energy consumption of non owner occupied residential properties should be analyzed and programs should be implemented that incentivize energy efficiency upgrades or create a regulatory framework to require it
We often feel that our programs are hamstrung based on the fact that we cannot exceed state policy. We would be much more aggressive with our implementation of energy efficiency measures if we had the ability to do so.
All other jurisdictions
All new construction would require some percentage of energy come from solar and/or wind-generated. This is my hope - however, I am not part of our Planning Commission.
At this time not practical for us as we have no business or stores. We have only homes and hunting cabins and land.
Charging stations and grants to do so.
Global warming is real any and every effort to reduce carbon is helpful
Higher R values
mandatory LED use in all new construction
No specific ways.
No. We currently do not have local "energy codes".
None
not sure

Pending Sustainability Advisory Commission report.
Requirements as part of all upgrades and not just new construction.
Requiring greater energy efficiency in new construction and remodeling.
Requiring more energy efficient buildings that may include alternative energy sources
Standards for businesses and neighborhoods.
To evaluate older building to see if updating is need for safety and welfare of residents.
Use of alternative types of construction which significantly reduce energy use and provide longer building life cycle.

[Back to text](#)

G. Appendix G: Resources that local officials say might make their jurisdictions more likely to consider local policies regarding energy

[Back to text](#)

UP Responses
As much as I hate to say it, State or Federal regulations requiring it would force consideration.
Assistance with costs creating policies that are appropriate to our Township
Don't know
funding and expertise
Funding and technical assistance.
If funding was available I would hire [REDACTED] out of [REDACTED] to do an energy study for the City.
I'm not sure at this time
meeting for all munisapalitys in [REDACTED] county to let us know whats out there
The township would move towards solar power if funding came available
Training Costs What's available
Training and Funding
Wind Energy Solar Energy
Wind power, solar power
At-Risk (non-UP) responses
Any education would help. It really hasn't hit our radar, but should.
educational seminar of some kind to inform us and give us a direction. Right now, we don't know what we don't know.
Financial aid
Funding - technical assistance
funding, technical assistance
I don't think we have given it much thought. I know personally I know very little about what the possibilities are and the impact of those possibilities to even bring something to the table regarding energy.
Mainly the cost of accomplishing policies, advertising them and implementing infrastructure for it.
Most importantly adequate state funding of cities and villages.
not sure
We need 3-phase power for bussiness.
All Other Responses
100% funding of projects.
A decent return on investment would be the primary consideration. The ostentatious pronouncements of cities that choose to pay more for energy is neither logical or attractive to me.The political nature of such policies versus an intelligent and efficient overall consideration keeps reminding me that government is generally incapable of good decision making.

A grassroots greater understand of the entire topic. It is not on the horizon in a serious way in this community.
A paper on similar sized communities and t,he effects of the implementation
A Workshop to be educated Funding available
As you indicated, funding, technical assistance, and providing workshops would be a great way to bring knowledge to the Village on issues and options.
Availability of natural gas to all residents; better cell tower coverage.
cost and benefits
Education for Administration and Elected Officials Sample policies available for us to use Funding opportunities
Education workshops
Educational and financial resources.
Energy use evaluation
experts , work shops/seminars for public officials , public meetings . knowledge of available resources .
Funding
Funding
Funding and a presented plan of action
funding infrastructure projects
Funding to develop policies and initiatives as well as technical resources.
Funding to implement energy saving infrastructure.
Funding, technical assistance
funding, workshops
funding. We could consider solar panels at the wastewater plant property
Grant funding or pilot programs becoming available. A program that would lay out best practices and how to do some of this work without a large budget.
grant money ..
Grant money to cover the costs of the projects
Grants to implement programs and expertise/technical help.
Grants to make city facilities more energy efficient or to install alternative energy infrastructure.
Grants to offer energy efficiency upgrades to historic buildings; grants to install solar and wind infrastructure to power municipal buildings, etc.
grants towards implementing energy policies
Guidance and Funding
help with funding for solar panels
Hi speed interent
If we joined other townships on even the county to develop policies would have more impact than just one townships efforts.
Information and training opportunities
Information on what is out there.

Legal policy on wind farms, solar farms, and private wind and solar. Legal steps for limiting or prohibiting natural gas wells requiring horizontal fracking.
Money and additional staff and it would help if the state would stop making unfunded mandates to local government.
Money!
Monies to provide for ordinance language, attorney review, publication
More information
More information via meetings to show us what to do, how to do it, the who , what , when , where's of this issue
More interest from land owners and more knowledge about alternative energy
Municipal Finance reform at the state level to enable additional funding. Education for council members to consider these topics.
My Township is very old school and not receptive to change. we have a few solar panels on a few houses and barns. Im not 100% sure what local polices you would like us to consider, but the twp office and twp fire dept have converted many lights over to LED to help bring down the light bill.
No cost
Not interested at this time.
Not really sure.We keep losing power everytime the wind blows it seems.
Not sure. This really has been the topic of discussion.
Our Township Hall is only used for meetings, elections, and tax collection at year end. The Township Board is looking into conserving electricity with heating and lighting the building; the building does not have air conditioning.
Our township is 3/5 state land with under 1000 people living here mostly forested , we are just happy to have electricity as our power lines are very old
People who are paid to do that work.
possibility making people aware
Presentations by experts, guidance from state, opportunities to connect local officials with members of the industry.
Public discussion led by persons who know policies Workshops educating public
Receiving education regarding energy. This is give the Council some insight they currently do not have. This has not been an issue for discussion in the Village.
Recently, there has been a major international movement in the planning and implementation of 100% renewable energy communities. We would like to be a part of that movement. However, we have no commercial properties or businesses in our community. The majority of the property is federal forestry land. Residents alone, would be the focus of reducing energy costs and implementing renewable energies.
Sample policies from counties of a similar size with similar general funds.
Seminars giving guidance on policies, what is available for resources
Small Villages like our, need funding. Period.
State or Federal Grants that would pay for the programs
This is a rural township with few agricultural operations currently, [REDACTED] that is not operating, and lots of oil/gas exploration facilities throughout the [REDACTED]. Residents are generally aware of better lighting choices but there is very little demand at this time for solar etc. Residents are probably

<p>aware of changes through the electrical service and the heating/cooling businesses. As the industry becomes more adaptive to newer technology and resources the public will become more in tune as well. Prices for the improvements will be the real decision and the small changes of light bulbs etc are gaining strength. The township has utilized better street lighting for the last few years.</p>
<p>this is a small village ~ wind turbines? would there be sufficient space to even place one? Education is the number one factor. And what types of other energy?</p>
<p>unknown</p>
<p>Unsure. We do not have an electric department and energy (gas and electric) are provided by Consumers Energy under a franchise agreement.</p>
<p>We have a significant lack of funding. We are installing Water Meters and that has cost a lot and we are in process of Walking Trials Grant and SAW Grant.</p>
<p>We jointly Plan with [REDACTED] Township as THE [REDACTED] PLANNING COMMISSION. Funding to help rural townships become knowledgeable of the alternative energy initiatives (public lands and private lands), workshops, and assistance with creating zoning language,</p>
<p>We still have "belief" discussions about climate change. Tell us how to save money by saving energy and we can sell it.</p>
<p>Wind and solar info</p>
<p>Workshops detailing how to bring renewables and charging stations to our village. Funding sources for these developments</p>
<p>Workshops, examples of policies to adopt, something showing the benefits.</p>

[Back to text](#)