

# Town of Pittsford

Recommendation to the Town Board from the

## *Pittsford. Keeping It Green Committee*

Delivered

May 5, 2009

## Acknowledgements

The steering committee would like to acknowledge all the time and selfless effort given by the many residents of the Town who served on the *Pittsford. Keeping It Green* committee and helped develop these recommendations. Their input and expertise were invaluable. The efforts of the steering committee itself should be acknowledged as well. The complete list of committee members and steering committee members can be found in Appendix E: *Pittsford. Keeping It Green* Committee Members. Also, we are grateful to the Town Board and Town Supervisor Bill Carpenter for starting this initiative which provides Pittsford’s citizens an opportunity to make their Town a better place to live while at the same time helping to make a difference in the world. Finally, thanks to Sandy Zutes for agreeing to chair the committee.

## Executive Summary

In July 2008, the Pittsford Town Board issued an invitation to the town residents to form a committee to look at ways to make the Town of Pittsford a more environmentally friendly community. Forty-five residents volunteered, and the *Pittsford. Keeping It Green* committee was formed. The mission of the committee is as follows:

*Strive to reduce Pittsford’s impact on the local and global environment by recommending to the Town Board innovative policies, practices, and technologies and continue to support, encourage, and educate the community of Pittsford in going green.*

This report outlines the committee’s recommendations to the Town Board. It is our hope that the Town Board will adopt many of these recommendations and that through their implementation, Pittsford will become a more environmentally sustainable community, doing our part to part to act as stewards of the planet, making our Town a more attractive place to live, and saving money. The table below summarizes our recommendations. The recommendations have five broad goals:

1. Make our homes and buildings more efficient and employ renewable energy when possible
2. Reduce, reuse, and recycle
3. Limit what we put into the water, air, and land
4. Make our transportation more efficient
5. Reduce the environmental impact of the food we eat

Recommendation	Rollout Timeframe	Comments
<i>Umbrella Initiatives</i>		
1. Establish information clearinghouse on Town web site for <i>Pittsford. Keeping It Green</i> initiative.	3 mo.	Communication with public is key.
2. Distribute Eco Cards and continually encourage Town Residents to complete and return them.	3 mo.	To be used as baseline and progress measurement tool as well as motivation for action.
3. Establish a permanent Green	3 mo.	Proposals will require further work and

Advisory Board, independent of any existing boards.		research to implement. Board can also help write grants and stay abreast of technologies. Need not be structured as traditional advisory board so as to avoid creating new bureaucracy.
<i>Marketing Initiatives</i>		
4. Launch the <i>Pittsford. Keeping It Green</i> public campaign with a Grand Green Week.	3 mo.	Large public event to introduce initiative to public. All marketing initiatives aimed at education, publicity, and motivation.
5. Create a speakers bureau to educate and inform the public on environmental sustainability topics.	6 mo.	
6. Sponsor a contest to make a select group of Pittsford residents greener and more environmentally conscious.	1 yr.	
7. Market a Keeping It Green Starter Kit.	6 mo.	Bag containing useful green items.
8. Utilize the various Town-operated or –controlled media to routinely publicize the <i>Pittsford. Keeping It Green</i> initiative.	Ongoing	
9. Establish a partnership with the Brighton Pittsford Post newspaper whereby each edition would carry a tip on reducing energy use or otherwise reducing one’s environmental impact.	1 yr.	
10. Establish partnerships with local businesses to obtain involvement and sponsorship and seek pro bono marketing from local marketing firms.	1 yr.	This will help defray costs and increase community involvement.
<i>Measuring Effectiveness and Progress</i>		
11. Estimate Pittsford’s current greenhouse gas emissions (or other proxy for environmental footprint).	6 mo.	Measuring current state and setting measurable goals make efforts more effective.
12. Commit to measurable reductions in Pittsford’s greenhouse gas emissions.	1 yr.	
<i>Municipal Facilities and Operations</i>		
13. Develop energy reduction plans for all Town facilities.	3 mo. and ongoing	Improvements should be analyzed as investments.
14. Consider renewable energy for every building.	2 yr.	In particular, look at Spiegel, highway maintenance garage, library, and Town Hall.
15. Work to reduce the overall	2 yr.	Investigate options within State

emissions of the Town vehicle fleet.		purchasing contract and optimize management of fleet.
16. Review the cleaning products, pesticides and herbicides, fertilizers, and other chemicals used in Town buildings and on Town grounds, and determine if there are “greener” alternatives.	1 yr.	Go organic or non-toxic where possible.
17. As the opportunity arises, upgrade the exterior lighting fixtures within the Town with high-efficiency fixtures that meet Dark Sky standards.	2 yr.	
<i>Zoning Changes</i>		
18. Continue to ensure that the Town codes and zoning do not prohibit or present any unnecessary encumbrances to green technologies and practices.	Ongoing	Residents should not be discouraged from solar, geothermal, green roofs, gray water systems, etc.
19. Amend Article 38 of the Town zoning code, Incentive Zoning, to allow the Town to provide incentives to developers for implementing green practices that exceed State and Town codes.	1 yr.	Green techniques and innovative ideas could be rewarded with a density bonus, tax concessions, or other incentives proposed by either the Town or the developer.
20. Adopt a LEED Silver standard or higher for any new Municipal building in the Town and incentivize other sectors to meet LEED standards as well.	1 yr., may be phased in	
21. Update Town codes to require the use of high-efficiency exterior lighting that meets Dark Sky standards for all new construction and retrofits within the Town of Pittsford.	1 yr., maybe phased in	If this recommendation is implemented, then recommendation 17 becomes mandatory rather than voluntary.
<i>Town-Wide Policies and Initiatives</i>		
22. Encourage residents to have energy audits performed on their home.	3 mo. and ongoing	Very high impact. Some financial incentives could be provided. Should view improvements as investments.
23. Develop a <i>Pittsford. Keeping It Green</i> business certification program.	1 yr.	
24. Establish a Pittsford Swap Shop.	2 yr.	Drop off/pick up used items. Recycle items not accepted by Monroe County.
25. Organize a <i>Low Carbon Diet</i> program in Pittsford.	6 mo.	This book lays out a program to provide motivation and organize people’s efforts.

26. Support local agriculture.	Ongoing	For example, publish a list of local farm markets and stands.
27. Work to increase awareness of the impact Pittsford residents have on water quality by the substances they put down the drains and on their lawns and driveways.	Ongoing	Install signage to identify water runoff zones, and support the efforts of the Genesee Valley Water Education Collaborative.
28. Incorporate the recommendations and ideas from this report into the Town Comprehensive Plan, which is currently being updated.	3 mo.	
29. Work to establish partnerships and collaborations with other Towns, educational institutions, and organizations.	1 yr. and ongoing	
<i>Other Recommendations</i>		
30. Establish a model home or model building to demonstrate green building techniques and products to the public.	2 yr.	
31. Work with the school district to establish a “leave your car at home day” where all students either take the bus, walk, or bike to school and employees make an effort to carpool, walk, or bike to work.	1 yr.	
32. Examine the feasibility and potential savings of a four-day work week or other flexible working arrangements for Town employees.	1 yr.	Offered only as a suggestion. May not be feasible.
33. Provide preferred parking for efficient vehicles.	1 yr.	Issue parking stickers to qualifying vehicles or post “Compact Car Only” spots.
34. Investigate storm drain filters.	1 yr., implementation unknown	For example, AbTech industries has developed Ultra-Urban® Filter with Smart Sponge® technology to filter hydrocarbons and sediments.

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## Introduction

In July 2008, the Pittsford Town Board issued an invitation to the town residents to form a committee to look at ways to make the Town of Pittsford a more environmentally friendly community. To use a common term, Pittsford decided to “go green.” Pittsford recognized that our town, our country, and the entire world face a serious challenge from climate change and other environmental problems. The Town recognized that by doing our part and joining other concerned people around the world in acting as stewards of our planet, we will make our local ecosystem healthier which will in turn make us healthier, make Pittsford a more attractive place to live, and even save money.

Forty-five residents volunteered for the committee, and in August 2008 a steering committee comprised of seven residents and chaired by Sandy Zutes, a Town Board member, began meeting. The steering committee chose a name for the entire committee, *Pittsford. Keeping It Green*, and developed a mission statement:

*Strive to reduce Pittsford’s impact on the local and global environment by recommending to the Town Board innovative policies, practices, and technologies and continue to support, encourage, and educate the community of Pittsford in going green.*

The steering committee formed four subcommittees and gave them their charges:

- Municipal Energy Use
  - Identify recommendations for maximizing the energy efficiency of Town operations.
- Residential and Business Energy Use
  - Develop recommendations for Pittsford residents and businesses to reduce energy use.
- Product Lifecycle
  - Develop recommendations for Pittsford residents, businesses, and the Town on the purchase of green products as well as on ways to increase conservation and recycling and to improve land, air, and water quality.
- Education and Outreach
  - Develop methods to educate the Pittsford Community on the recommendations contained in the *Pittsford. Keeping It Green* report.

For the purposes of this report, the subcommittee recommendations have all been consolidated into a single set of recommendations.

## Key Messages

This report contains numerous recommendations. Some are actions that can be taken by the Town, and others are actions that the Town should encourage residents to take. Although the large number of recommendations may at first seem overwhelming, there are five key messages that should be delivered to Pittsford residents and that the Town should use as guiding principles in its operations and in planning for the future:

- 1. Make our homes and buildings more efficient and employ renewable energy when possible.**

2. **Reduce, reuse, and recycle.**
3. **Limit what we put into the water, air, and land.**
4. **Make our transportation more efficient.**
5. **Reduce the environmental impact of the food we eat.**

## Land Use

Land use is a sixth major area of environmental importance. The Town of Pittsford has been very proactive in conserving open space and farmland and has been widely recognized for its Greenprint program. As the amount of land available for development in Pittsford diminishes, the Town faces a new set of challenges in planning for “in-fill” development and ensuring that the remaining tracts of land are planned for appropriately. Towards that end, the Town is currently undertaking an effort to update its Comprehensive Master Plan. The *Pittsford. Keeping It Green* committee recommends that the Town continue to demonstrate support for open spaces, ecological resources, farmland preservation, intelligently designed communities, and an efficient transportation infrastructure, including support for walking and biking paths and on-street bike lanes.

## Key Recommendations

### Umbrella Initiatives

The most difficult aspect of any public-focused green campaign is getting people to pay attention, to understand and accept the message, and to take meaningful action. The *Pittsford. Keeping It Green* initiative must deliver its message in a coherent and understandable fashion and in a manner that excites and motivates the public. In order to streamline the message delivery and to consolidate the large amount of information and recommended actions, the *Pittsford. Keeping It Green* committee makes three recommendations for “umbrella” initiatives that will serve as a basis for the campaign:

**1) Establish a section on the Town web site to serve as a clearing house for information related to the *Pittsford. Keeping It Green* initiative.** This web site should not attempt to duplicate information on the numerous other existing web sites related to environmental protection. It should provide a list of meaningful actions that residents can take in their lives to reduce their footprint (many of these lists already exist, but many of them are trite. This list should be meaningful, tailored to Pittsford, and reflect the contents of this report). The web site should also provide information on where residents can obtain local green goods and services (e.g. energy audits, organic lawn care products, solar installation expertise). It should also provide information about local goods, particularly food. Supporting local businesses is good for our community and our environment, and supporting local agriculture is particularly important. It should have a list of recommended resources, both technical ones (e.g. how to weatherproof your house, recommended building or remodeling techniques) and philosophical ones (e.g. why should we care about protecting the environment). A list of recommended reading and web sites should be included. It should contain information about how and where to recycle, including the extensive list of recycling opportunities described in Appendix C: Local Recycling Opportunities. Finally,

the web site should keep residents updated on the Town's own efforts and the efforts of the *Pittsford. Keeping It Green* committee or its possible successor.

**2) Distribute Eco Cards to the Town residents and continually encourage as many of them as possible to complete and return them.** A combined paper/electronic approach would probably be wisest to save on printing costs and to reach the widest possible audience. The paper version should of course be printed on recycled paper using an environmentally friendly ink, if possible. The card would contain a list of actions that residents can take to be more environmentally friendly. The actions would be grouped by area (e.g. food, housing, transportation) and would contain an indication of their relative importance. Residents would indicate which actions they have already taken and which they plan to take during the next year. The Town should encourage as many residents as possible to complete the card, whether or not they plan to take any action. The Town should set a goal of at least a 25% response rate. This will establish a baseline level of "greenness" in Pittsford. Those who complete the card should then be asked to follow up electronically after six months and again after one year. This can be used to measure the effectiveness of the program. An outline of the card content is included in Appendix A: Suggested Eco Card Content.

**3) Establish a permanent Green Advisory Board, independent of any existing boards.** The recommendations in this report will require further work in order to implement. While much of the work would most appropriately be done by Town employees, a permanent advisory board would be useful to fill in the gaps, keep abreast of changing technology, and continue to generate new ideas. For example, a permanent board could assist with contacting local businesses to establish partnerships, organizing speaking events, or researching available grants. A permanent advisory board would help keep momentum and visibility behind the *Pittsford. Keeping It Green* initiative. Innovative organizational structures should be considered so as to avoid creating new bureaucracy. The board need not be structured in the same fashion as the other Town advisory boards.

## Marketing Initiatives

The committee recommends several marketing, education, and outreach initiatives to increase public awareness of the *Pittsford. Keeping It Green* campaign:

**4) Launch the *Pittsford. Keeping It Green* public campaign with a Grand Green Week.** Town Supervisor Bill Carpenter would kick off the week by holding a press conference to describe the *Pittsford. Keeping It Green* initiative, the actions the Town itself will be taking based on the committee's recommendations to the Town Board, and the actions the Town will be encouraging residents and businesses to take. He would describe where the public can get more information and describe the Eco Card and encourage residents to complete it. He would also describe the Starter Kits that would be available for purchase. Another event during the week could be one or more panel discussions with representatives from various industries such as food, waste disposal and recycling, lawn care and gardening, alternative energy, and utilities. Local media personalities could be invited to moderate these discussions. Representatives from environmental advocacy groups, such as the Sierra Club or Nature Conservancy, and from the Town of Pittsford should also be included. In addition, a Eco Fair could be held during the week where local vendors selling green products and services as well as local environmental

organizations would be invited to set up booths. In general, the idea of the Grand Green Week is to have some sort of interesting event almost every night in order to spark maximum public interest and allow the largest possible number of people to attend.

**5) Create a speakers bureau to continue to educate and inform the public on topics relating to environmental sustainability.** This bureau would arrange periodic lectures and discussions to help keep the public informed about the *Pittsford. Keeping It Green* initiative and to educate it about green practices and ideas, sustainable technologies, emerging trends, and the importance of working towards sustainability. Speakers could either be members of the bureau or external invited speakers. The bureau need not be a separate committee. For example, the work could be done by the Green Advisory Board or by the library staff who currently organize various talks at the library.

**6) Sponsor a contest to make a select group of Pittsford residents greener and more environmentally conscious.** The contest could be structured in a couple different ways. One way would be to somehow select a few families who are admittedly not very environmentally conscious but are interested in changing. Home audit companies and other local businesses and groups would then be asked to donate their services, in return for sponsorship recognition and advertising, to help the families incorporate green practices into their lives. This would sort of be modeled on the “Extreme Makeover, Home Edition” television show. In fact, the committee recommends that the producers of various television shows, such as those seen on Planet Green, be contacted to see if they would be interested in documenting the contest for one of their episodes. Another contest possibility is an “Energy Hog” contest where residents who feel their homes are particularly inefficient are asked to write letters describing their homes, what they would like to change, and why they should be chosen for the contest. One home would then be selected, and local companies be asked to donate goods and services to make the home more energy efficient and greener. Either or both of these contest formats could be used.

**7) Market a Keeping It Green Starter Kit.** This kit would be a bag of green items that residents (and possibly non-residents) could use in their daily lives to reduce their environmental footprint. The kit would be contained in a reusable cloth shopping bag and contain items such as

- CFL bulbs
- Earth-friendly dish soap
- Earth-friendly laundry soap
- Earth-friendly toilet-bowl cleaner
- Recycled content paper towels
- Recycled content toilet paper
- Samples of local foods (packaging with other items would need to be considered)
- a to-be-determined book about living a more sustainable life
- coupons from local stores for items such as programmable thermostats, low-flow shower heads, shower shutoff valves (can turn off water without changing the temperature when soaping up), and weather stripping

The cloth bags could likely be obtained cheaply by soliciting local sponsors. In order to reduce waste, the items in the bag should be items that virtually anybody could use, and coupons should be provided for other items. Alternatively, an order form may be provided so that one may specify exactly which items one would like to purchase or receive. Depending on sponsorship levels, these bags could either be given away or sold to the public.

**8) Utilize the various Town-operated or –controlled media to routinely publicize the *Pittsford.***

***Keeping It Green* initiative.** Those media include the Pittsford Messenger, the Parks and Recreation newsletter, the Town news email, and cable Channel 12.

**9) Establish a partnership with the Brighton Pittsford Post newspaper whereby each edition would carry a tip on reducing energy use or otherwise reducing one’s environmental impact.** The tips could be submitted by readers or created by the Town or the paper.

**10) Establish partnerships with local businesses to obtain involvement and sponsorship and seek pro bono marketing from local marketing firms.** This will help defray costs and increase community involvement. Businesses could become involved in many ways, such as direct financial support or participation in specific initiatives such as working to reduce plastic bag usage.

## Measuring Effectiveness and Progress

In order for the *Pittsford. Keeping It Green* initiative to be successful, measuring Pittsford’s current energy use and setting future goals would be extremely helpful. Accordingly, the committee recommends the following actions.

**11) Estimate Pittsford’s current greenhouse gas emissions (or other proxy for environmental footprint).** In order to do this, an estimate should be produced for energy usage by amount and source, including alternative sources. The results should be benchmarked against similar communities to better inform policy decisions.

**12) Commit to measurable reductions in Pittsford’s greenhouse gas emissions.** One possible set of goals is embodied in the USCAP (U.S. Climate Action Partnership) low-end recommendations (based on 2007 levels):

1. By 2012, limit greenhouse gas (GHG) emissions growth to 0%
2. By 2017, reduce GHG emissions by 10%
3. By 2022, reduce GHG emissions by 30%
4. By 2050, reduce GHG emissions by 80%

Any GHG reduction goals should be translated to easily understandable goals that can be used when communicating with the public. These goals should be organized around the 5 points listed in the Key Messages section. For example, one goal could be to have some percentage of homes in Pittsford undertake energy audits and another goal could be to reduce the amount of waste we send to the landfill by a specific percentage.

## Municipal Facilities and Operations

The recommendations in this section pertain to green improvements that the Town can make on its own facilities and operations. These do not require encouraging the public to take certain actions (beyond supporting the effort); therefore, tangible results are more assured. Not only will these actions produce direct environmental benefits, but they will also serve to demonstrate Pittsford's commitment to becoming more environmentally sustainable and will encourage residents to participate in the initiative.

**13) Develop energy reduction plans for all Town facilities.** The first step in this action should be to commission energy audits for all the Town facilities. Energy audits are available from NYSERDA (New York State Energy Research and Development Authority), NYPA (New York Power Authority), and independent auditing firms such as Larsen Engineering, True Energy Solutions, and Stantec Engineering, among others. NYSERDA and NYPA generally focus on larger facilities. Audit costs vary depending on the specifics of the audit, but they can be quite low and generally pay for themselves if the recommended energy reduction measures are followed. The committee recommends that the Town commit to implementing the recommended actions that have a payback period of five years or less or that pertain to equipment that will need to be replaced within a set timeframe. The decision to implement a recommendation should be viewed as an investment decision using traditional investment analysis techniques. Facilities with high energy usage, such as the Spiegel Center, should be addressed first. The Town should also develop training materials and monitoring to ensure proper operation of the facilities and compliance with the audit recommendations. Finally, the energy reduction plans should be reevaluated whenever a facility's primary use changes, or every 3-5 years.

**14) Consider renewable energy for every building.** Power generation from a renewable source should be given special consideration for buildings with high electric loads, such as the Pittsford Library, and geothermal or high efficiency systems should be given special consideration for buildings with high heating loads, such as the Spiegel Community Center and the Highway Garage.

**15) Work to reduce the overall emissions of the Town vehicle fleet.** This can be done by

1. pushing for additional "green options" within the State purchasing contract
2. minimizing mileage by optimizing routes through the use of tools such as ESRI ArcLogistics that work with GIS
3. continuing collaboration regarding alternative fuels and fueling stations with local entities such as the Pittsford School District, Brighton, and Monroe County.

Pittsford employs 43 vehicles ranging from small mowers to large front-end loaders. The age of the fleet ranges from brand new (purchased in 2008) to a twenty-two year old air compressor.

**16) Review the cleaning products, pesticides and herbicides, fertilizers, and other chemicals used in Town buildings and on Town grounds, and determine if there are "greener" alternatives.** Organic alternatives should be used whenever possible. The committee has done some review of the products used and has provided information to the Town. For the cleaning products, the Town should consider purchasing an entire line of green products as the school district has done. Rochester Midland makes one possible line.

**17) As the opportunity arises, upgrade the exterior lighting fixtures within the Town with high-efficiency fixtures that meet Dark Sky standards.** Attempt to persuade RGE to do the same for their streetlights in Town.

## **Zoning Changes**

The first purpose of the recommended zoning changes listed below is to ensure that Pittsford residents and businesses are not prevented from making “green” improvements to their homes and commercial buildings, even if some of these improvements may be regarded as “unusual” due to low adoption rates or the newness of the technology. The second purpose of the recommendations is to encourage builders and residents to use green techniques when building or renovating structures.

**18) Continue to ensure that the Town codes and zoning do not prohibit or present any unnecessary encumbrances to green technologies and practices.** Such technologies include solar thermal (hot water), solar photovoltaic, geothermal systems, rain barrels, green roofs, porous pavement, wind turbines, and gray water systems. The *Pittsford. Keeping It Green* committee did not discover any such prohibitions or encumbrances, but they did not do a complete review of the Town codes. Of these technologies, wind turbines would present the most challenges with regards to zoning. Although there is not much potential for large-scale wind turbines in Pittsford, the Town should look at adopting codes and policies that treat smaller residential- and commercial-scale wind turbines favorably. As technology improves, these may become more practical.

**19) Amend Article 38 of the Town zoning code, Incentive Zoning, to allow the Town to provide incentives to developers for implementing green practices that exceed State and Town codes.** Such practices would include building super-insulated homes, using sustainable materials, installing renewable energy systems, building smaller homes, installing rainwater collection or gray water systems, using porous pavement when pavement is necessary, using native plants for landscaping, undertaking site remediation, obtaining a green certification from a third-party organization, and building green roofs or using other innovative construction techniques. Innovative approaches to land use could also be rewarded. These techniques or other innovative ideas could be rewarded with a density bonus, tax concessions, or other incentives proposed by either the Town or the developer.

**20) Adopt a LEED Silver standard or higher for any new Municipal building in the Town and incentivize other sectors to meet LEED standards as well.** By meeting LEED standards for any new Municipal buildings, the Town will set a strong example for others to follow and demonstrate its commitment to sustainability.

**21) Update Town codes to require the use of high-efficiency exterior lighting that meets Dark Sky standards for all new construction and retrofits within the Town of Pittsford.** Efficient lighting saves energy, and lighting that meets Dark Sky standards also enhances the quality of life and aesthetic appeal of the Town. If this recommendation is implemented, then recommendation 17 becomes mandatory rather than voluntary.

## Town-Wide Policies and Initiatives

**22) Encourage residents to have energy audits performed on their home.** Residences account for 21% of energy consumption in the United States<sup>1</sup>. In a heavily residential town like Pittsford, this percentage must be even higher. Therefore, performing an energy audit of one's home is a high impact action and one of the few high impact actions that require no behavior modification or lifestyle alterations (another would be purchasing a more fuel-efficient vehicle). The improvements recommended by home audits often have a relatively short payback period and should therefore be viewed as investments rather than costs.

The committee recommends that the Town use all available media to encourage audits. The committee also recommends that the Town provide a limited amount of financial incentives for home audits. Such incentives could include cash rebates to a limited number of residents, perhaps selected through a lottery, or subsidies to local audit firms for performing Pittsford audits. A certain number of vouchers for free energy audits could be distributed to the public. The total amount of the incentives need not be large, but by offering at least some level of financial support, the Town underscores its commitment to the *Pittsford. Keeping It Green* initiative and the importance of energy-efficient homes.

There are several local companies that provide energy audits. Some companies do comprehensive<sup>1</sup> audits while others are focused more on selling particular products. The Town should develop a list of recommended companies to help residents ensure they are getting quality audits. Recommended companies should be certified by the Building Performance Institute (BPI), and, in order to support the local community, preference should be given to local companies.

**23) Develop a Pittsford. Keeping It Green business certification program.** The commercial sector is a significant power consumer, accounting for 18% of national consumption<sup>1</sup>. The Town should develop a list of criteria that would qualify a business as "Keeping It Green Certified." Sarasota County, Florida, through a grant from the Florida Department of Environmental Protection, has developed an excellent list of criteria. The list can be found at <http://www.scgov.net/greenbusiness/documents/ApplicationActive.pdf>. Much of the list, with any necessary permission from Sarasota County, could be used as-is, and the rest would require small modifications to be Pittsford-specific. One important area that is missing from the list is exterior lighting. Businesses achieving the Keeping It Green certification would be able to advertise their certification as they see fit, and they would also be listed on the web site that this report recommends creating. The Town could establish a single certification level or multiple levels of certification (e.g. Gold, Silver, Bronze). Verification of the actions taken by businesses could be done by a Town employee or the Green Advisory Board.

**24) Establish a Pittsford Swap Shop.** This could be modeled on the Victor Swap Shop. It would be a location within the Town of Pittsford where residents could leave unwanted but usable items and in

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<sup>1</sup> Energy Information Administration, "State Energy Data 2006: Consumption," [http://www.eia.doe.gov/emeu/states/sep\\_sum/html/pdf/sum\\_btu\\_1.pdf](http://www.eia.doe.gov/emeu/states/sep_sum/html/pdf/sum_btu_1.pdf)

turn take items left by others. There would be no charge. The committee also recommends accepting other items that are recyclable through various programs but are not included in the Monroe County curbside recycling program. For example, batteries, sneakers, CFL light bulbs, printer cartridges, and eyeglasses are all recyclable but require either mailing the items or driving to different recycling locations. The Swap Shop would serve as a central drop-off location. This would increase recycling rates, decrease car trips, and save residents money and time. The Victor Swap Shop also accepts all plastics (#1-#7) as well as regular trash and recyclables accepted by the Monroe County curbside program. While the *Pittsford. Keeping It Green* committee does not recommend at this time accepting regular garbage and recyclables, it does feel accepting plastics #3 - #7 would be worthwhile since these are not currently accepted by Monroe County.

**25) Organize a *Low Carbon Diet* program in Pittsford.** *Low Carbon Diet, A 30 Day Program to Lose 5000 Pounds* by David Gershon is a workbook that outlines a diet-like approach to reducing one's carbon footprint. It also describes how to organize community groups to undertake the effort together. There are members of the committee that would be willing to serve as facilitators for these groups. Communities such as Brighton have organized town-wide *Low Carbon Diet* programs. While the specific recommendations in the *Low Carbon Diet* would also be covered by the Eco Card and other communications from the Town, the program provides a framework that will provide many people with the necessary motivation and support to change their behaviors. Appealing to as broad an audience as possible is a very important component of the *Pittsford. Keeping It Green* initiative.

**26) Support local agriculture.** The Town of Pittsford is fortunate to have significant agricultural resources both within the Town and in the surrounding region. Local agriculture is important for the economy, preservation of land, and of course, production of tasty, healthy food. Food production, packaging, and distribution are major sources of greenhouse gas emissions. By buying more food from local sources, we reduce the energy consumption resulting from transportation of our food. We reduce development pressure on agricultural lands and help preserve an important part of the character of this region. The committee suggests that the Town continue to support the local farmer's market and promote local agriculture in its communications with the public. For example, it should publish a list of local farm markets and stands. Support for local agriculture should be included in the update of the Comprehensive Plan. Finally, support for local agriculture should be included as a criterion in the Keeping It Green Business Certification Program (for restaurants and grocery stores, for example).

**27) Work to increase awareness of the impact Pittsford residents have on water quality by the substances they put down the drains and on their lawns and driveways.** The Town should support the efforts of the Water Education Collaborative (WEC), an awareness campaign that educates the residents of the Genesee Valley watershed about the enormous impact they can have on the water quality in our area. In addition, the Town should install signage in key areas to identify water runoff zones.

**28) Incorporate the recommendations and ideas from this report into the Town Comprehensive Plan, which is currently being updated.** The committee recommends that this report be presented to the firm responsible for managing the Comprehensive Plan update process. The ideas, goals, and messages

outlined in this report should be incorporated in the Comprehensive Plan so that protecting the environment continues to be a central part of Pittsford's mission as it moves into the future.

**29) Work to establish partnerships and collaborations with other Towns, educational institutions, and organizations.** Other towns in Monroe County have undertaken similar efforts to the *Pittsford. Keeping It Green* initiative. In addition, Monroe County itself has taken a number of green actions including turning down the heat and air conditioning in county buildings, operating some flex-fuel vehicles, and generating electricity from landfill gas. The area's higher education institutions also have many environmental programs, initiatives, and research efforts. There are also many non-governmental organizations in the area dedicated to protecting the environment. All these groups represent a wealth of opportunities for partnerships and unique initiatives. Finally, by combining forces with others, Pittsford would more easily be able to win grants for environmental programs.

## Other Recommendations

**30) Establish a model home or model building to demonstrate green building techniques and products to the public.** The committee has a lot of enthusiasm for this idea, but due to the large amount of upfront work required, did not have time to develop it further. The idea would be to establish a model home that showcases systems such as solar hot water, photovoltaic, efficient and environmentally friendly insulation, and rainwater collection. It would incorporate green products such as bamboo or cork flooring, recycled carpet, sustainably manufactured furniture, efficient appliances, etc. The yard would be organically maintained and planted with native species. The home could be selected on an annual basis and be either new or existing construction. The owner would agree to allow the public to view his or her home during scheduled times over a set period. Due to the difficulty of finding suitable houses, another option would be to establish a "green museum" in a building located somewhere within the Town. It would display many of the systems and products described above but would be an exhibit rather than a working building. The advantage of this would be that it could be permanently opened to the public and could display a wider range of systems and products than would be found in a single home. It would be a central location where someone constructing or renovating a home or building could go to get the latest information and techniques and products. Partnering with the school district to use one of the schools, such as the Calkins Road Middle School, as both a model and display center, is an attractive possibility. Yet another possibility would be to sponsor a contest to build a home that meets certain criteria such as a net zero home or a green home costing less than \$100,000.

**31) Work with the school district to establish a "leave your car at home day" where all students either take the bus, walk, or bike to school and employees make an effort to carpool, walk, or bike to work.** There has already been some expression of interest from the school district.

**32) Examine the feasibility and potential savings of a four-day work week or other flexible working arrangements for Town employees.** The committee realizes that this may not be feasible for many employees due to job requirements and service-level requirements to Town residents. However, the committee felt it was worth simply presenting the idea.

**33) Provide preferred parking for efficient vehicles.** In the Town lots, certain parking spots could be designated for hybrid or particularly efficient vehicles. Perhaps stickers could be issued to vehicles meeting the requirements. Alternatively, certain spots could simply be labeled “Compact Cars Only.”

**34) Investigate storm drain filters.** Storm drain filters would help protect water quality and supplement efforts to reduce pollution at the source. One example of such a filter is the Ultra-Urban<sup>®</sup> Filter with Smart Sponge<sup>®</sup> technology developed by AbTech industries. More information on this technology is available at <http://www.abtechindustries.com/index.asp?mid2=170>. The product is a high-tech filter that gets installed in storm water drains to filter hydrocarbons, trash, and other sediment from the runoff stream. Unfortunately, the committee did not have time to further investigate this or similar products to determine cost and suitability for Pittsford.

## **Funding and Additional Resources**

The *Pittsford. Keeping It Green* committee has collected a large amount of information on funding opportunities and incentive programs. They are not included in this report for the sake of brevity and due to their quickly changing nature. Funding is available from the state through NYSERDA, from the federal government, and from non-governmental organizations. In addition, the committee has assembled a long list of additional resources and organizations. It would be happy to provide further information whenever needed.

## **Summary**

By implementing the recommendations in this report, especially the high-impact ones, the Town will be playing an important role in protecting the environment and making the Town a better place to live. The most important thing is to start translating the recommendations into action so that Pittsford’s residents can start to see some progress and the *Pittsford. Keeping It Green* initiative can retain its momentum.

## Appendix A: Suggested Eco Card Content

This appendix contains a list of recommended content for the Eco Cards. Each item would allow a resident to indicate that he or she has already taken the action or plans to take the action within the next six months. The items are organized according to the areas outlined in the Key Messages section of this report. Each item should have an indication of its relative environmental impact. The committee suggests that the card make an indication of the low-effort items and the high-impact items. The low-effort items are actions that almost everyone should be taking because they involve minimal effort and cost and don't significantly affect one's lifestyle. The high-impact items are items that are the most important to take from an environmental point of view. The high-impact items that are also low-effort should be the top priorities, while the high-impact items that require more effort should receive attention from those who are able to accomplish them. In the list below, the items that are high-impact and low-effort are indicated by a ☆, the items that are high-impact and require more effort are indicated by a ➤, and the items that are low-effort but also have a somewhat lower impact are indicated by a ✓. All others are indicated by a •.

In addition to the broad indications of relative impact and effort, each item could be assigned a number of points. The points should use a consistent metric, with a scientific basis. The points would allow residents to have a more accurate assessment of their environmental impact and to better gauge their improvement over time. The Town would be able to use the aggregate statistics to make similar measurements for all of Pittsford.

The card should also have an introductory section explaining what the purpose of the card is, why it's important to complete it, and why it's important to strive to reduce one's environmental impact. It should make clear that each person is not expected to try to achieve each item. Certain people will be able to accomplish certain things while others will not be able to because there are extenuating circumstances or simply because they don't want to or don't feel the change fits into their lifestyle. That is fine. The card is simply a survey and a tool to help people think about certain actions that they may not have otherwise considered. The card should also contain a reference to the Town web site for more information.

Make our homes and building more efficient and employ renewable energy when possible

- ☆ Have an energy audit performed on my home
- ☆ Implement the recommendations from an energy audit that fit my budget and desired payback period
- ☆ Replace some incandescent bulbs with compact fluorescent light bulbs or LED bulbs
- ☆ Replace at least 90% of incandescent bulbs with compact fluorescent light bulbs or LED bulbs
- Purchase Energy Star appliances when the old ones need replacing
- ☆ Have a programmable thermostat in my home
- ☆ Use my programmable thermostat to turn down the heat or air conditioning when no one is home
- Heat my home to no more than 68 in winter
- Cool my home to no lower than 78 in summer

- Purchase wind power to cover some of my electric bill
- Purchase wind power to cover my entire electric bill
- ✓ Only run the dishwasher when it's full
- ✓ Only run the washing machine when it's full
- Use a clothesline whenever possible
- ✓ Plug electronics into power strips and turn off the power strips when not in use
- ✓ Regularly turn off lights when not in use
- ✓ Regularly turn off computers and computer screens when not in use
- ✓ Turn off all electronics when traveling
- ✓ Use Energy Saver drying setting on the dishwasher
- ☆ Set water heater to no higher than 120 F

#### Reduce, reuse, and recycle

- ✓ Use reusable shopping bags or no bag at all whenever possible
- ☆ Recycle all recyclables (curbside recycling)
- ☆ Recycle all unwanted electronics at electronics collection events
- ✓ Contact the Direct Marketing Association to reduce the amount of junk mail received
- Compost all my organic food waste
- ☆ Donate all unwanted but usable items to others

#### Limit what we put into the water, air, and land

- Practice organic yard care
- Use a push mower to mow my lawn
- Recycle all hazardous waste including motor oil
- Recycle all my e-waste
- Wash my car in a commercial facility
- Wash my car on grass
- Do not wash my car

#### Make our transportation more efficient

- Purchase the most fuel efficient vehicle that meets my transportation needs
- ☆ Combine errands as much as possible to minimize driving
- Carpool to work
- Walk or bike to work at least 50% of the time when the weather is suitable
- Walk or bike when practical for errands and other excursions
- ✓ Do not idle my car in parking lots

#### Reduce the environmental impact of the food we eat

- ☆ Frequent local farmers markets and farm stands
- ☆ Buy mostly locally-grown produce during the growing season

- During the winter, buy locally-grown produce at least weekly
- Freeze, can, or otherwise preserve produce during the growing season for off-season consumption
- ☆ Don not use bottled water
- Limit meat consumption to 5 days per week
- Am a vegetarian
- Am a vegan

#### General

- Purchase carbon offsets to compensate for some of my carbon footprint
- Purchase carbon offsets to compensate for my entire carbon footprint
- Participate in the *Low Carbon Diet* program

## Appendix B: Town Facility Data

This appendix contains energy usage data for Town-owned facilities. The most important trend to note in the charts is the disproportionately high electricity use in the Town Hall, Spiegel Center, Highway Maintenance Garage, and library. All four of these facilities, particularly the library, should be examined for

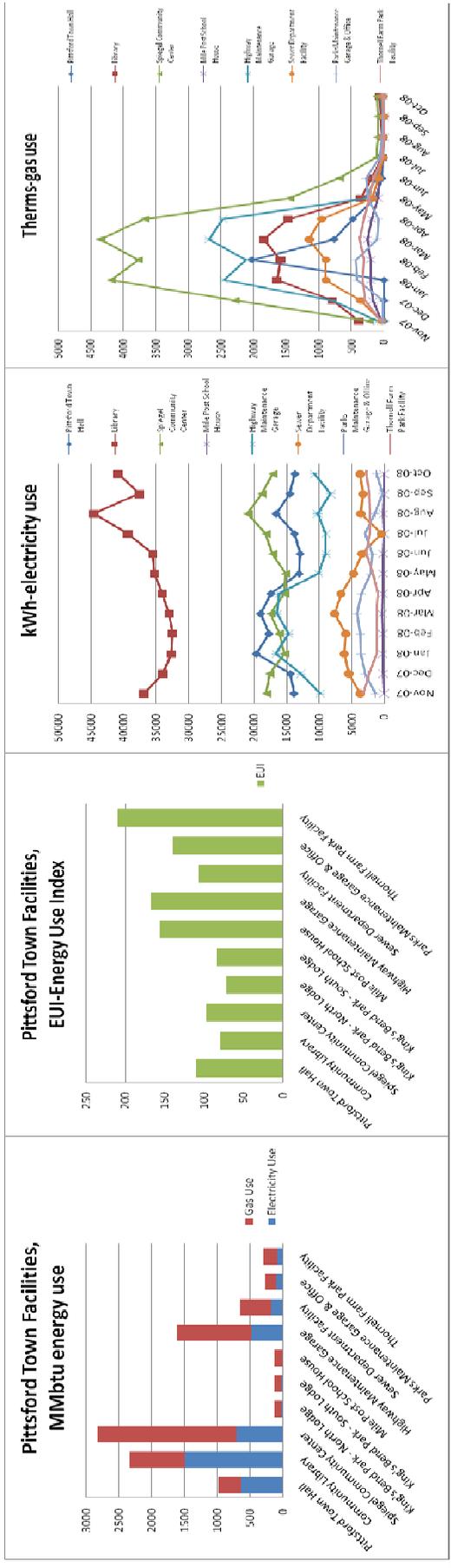
- electrical load reduction measures, such as lighting, hot water generation, computer use, and pump use
- the feasibility of renewable power generation systems.

In addition, the relatively high gas energy use of the Spiegel Center and the Highway Maintenance Garage suggest that a closer examination should be done of the

- heating systems
- shell of the building
- hot water systems.

The Energy Use Index (EUI, calculated as kBtu per square foot per year) provides a comparison between buildings, normalized by square footage, and is a good way to quickly identify those buildings that are not operating at expected efficiencies. The chart below indicates that the majority of the Town's facilities fall within the normal range of buildings for their type. The Highway Maintenance Garage shows up by all measures as an anomalously large energy user, possibly due to the use of hot water in cleaning the fleet vehicles. If this proves to be the case, geothermal heat pump systems should be considered to supply both heat and hot water, or high efficiency water heating systems such as on-demand heaters. Although the Mile Post School House and the Thornell Farm Park Facility show up as inefficient buildings on this chart, very small buildings tend to use more energy per square foot than larger buildings, so they are not likely to be accurately represented by this index.

The root causes behind these analyses cannot be accurately determined without further on-site data collection. For this reason, the *Pittsford. Keeping It Green* committee has recommended energy audits for the Town facilities.



Building	SF-usable	Electricity usage/year (kWh)	Electric MMBtu (kWh x .003413)	Gas usage/year (therms)	Gas MMBtu (Therms * 0.10)	Gas Costs \$	Electric Costs \$	Gas Costs \$	Gas Costs \$	MMBtu consumed	Cost of Energy	EUJ-Energy Use Index (Kbtu/Sq.Ft.yea r)	Cost (\$/Sq.Ft./year)
Pittsford Town Hall	8,948	187200	638.9136	3515	351.5	4962.37	\$21,898.94	21046.2	2104.62	990.4136	\$26,861.31	110.69076	\$3.00
Community Library	29,118	435800	1487.3854	8426.6	842.66	10308.29	\$46,750.73	2812.33968	281.233968	2330.0454	\$57,059.02	79.82939509	\$1.95
Spiegel Community Center	28,689	207360	707.71968	21046.2	2104.62	25164.85	\$24,816.50	1045.9	104.59	130.585541	\$49,981.35	98.02935576	\$1.74
King's Bend Park - North Lodge	1,810	7616.625	25.9955411	1045.9	104.59	1390.43	\$1,695.02	130.585541	13.0585541	130.585541	\$3,085.45	72.1467078	\$1.70
King's Bend Park - South Lodge	1,560	7616.625	25.9955411	1045.9	104.59	1390.43	\$1,695.02	130.585541	13.0585541	130.585541	\$3,085.45	83.70868021	\$1.98
Mile Post School House	855	2818	9.617834	1237.9	123.79	1707.54	\$488.44	133.407834	13.3407834	133.407834	\$2,195.98	156.0097459	\$2.57
Highway Maintenance Garage	9,620	144072	491.717736	11159.3	1115.93	13360.87	\$18,119.65	1607.64774	160.764774	651.032782	\$31,480.52	167.1160613	\$3.27
Sewer Department Facility	6,079	55014	187.762782	4632.7	463.27	5835.04	\$6,912.40	2784.89	278.489	278.489	\$12,747.44	107.0926219	\$2.10
Parks Maintenance Garage & Office	1,979	29937	102.174981	1747.8	174.78	2981.54	\$4,525.32	209.15	20.915	209.15	\$7,506.86	139.9469333	\$3.79
Thornell Farm Park Facility	1,402	24750	84.47175	2091.5	209.15	2784.89	\$4,564.40	293.62175	29.362175	293.62175	\$7,349.29	209.4312771	\$5.24

## **Appendix C: Local Recycling Opportunities**

Jeanette Zavislan, of the Product Lifecycle Committee, has authored an excellent list of recycling and reuse opportunities for various types of goods and materials that cannot be recycled through curbside recycling. The list contains over 100 categories and is arranged alphabetically. For example, building supplies can be donated to Flower City Habitat for Humanity while old hearing aids can be recycled through the Starkey Hearing Foundation or the Lions Club. Contact information and links to additional information are provided for the listed organizations. The list currently appears on the Pittsford Girl Scouts and the Church of the Transfiguration (<http://www.transfigurationpittsford.org/Peace-Justice/Environment/donate.htm>) web sites. It is version 21 and is updated monthly. Due to its large size, the list is not included here, but it should be made available as soon as possible on the Pittsford web site, and it should be advertised extensively as part of the *Pittsford. Keeping It Green* initiative. Electronic copies are available from this committee upon request.

## Appendix D: Summary of Efforts by Other Municipalities

Green initiatives in selected towns, cities and counties both within the area, and across the U.S., were reviewed to determine what type of programs were being proposed and implemented.

A review of 50 programs described at

[http://www.greenpolicy.us/index.php?title=Index#Cities\\_.26\\_Counties\\_7](http://www.greenpolicy.us/index.php?title=Index#Cities_.26_Counties_7) found the following:

- **About 50% of municipalities have quantified commitments.** For example
  - Annapolis, MD: 10% reduction in GHG emissions from baseline year, 15% emissions reduction by 2020
  - Asheville, NC: 2% YOY emission reduction from 2007 forward until goal of 80% overall reduction from 2001 levels achieved.
  - Portland, OR: reduce oil and natural gas use by 50% by 2030
  - Chicago, IL: Meet growing electricity needs through 2010 using renewable sources plus conservation and efficiency measures
  - Battle Creek, MI: meet 15% of energy demand for municipal facilities from renewable sources by 2015
- **About 50% (with overlap with “commitment” bucket) have enumerated specific actions.** For example
  - Plano, TX: rebate program 20% of upgrades up to \$2k/household
  - San Francisco, CA: issue of bonds to finance a 360MW (14% of city demand) from energy efficiency upgrades, renewable generation
  - Columbia, MO: generate or purchase green electricity at following: 2% by 2007, 5% by 2012, 10% by 2017, 15% by 2022
  - San Diego, CA: install 50MW renewable energy on public and private buildings throughout the city by 2013. All city depts. must install renewable generators on new buildings to meet 10% demand
- **About 25% of them either referenced or enumerated an action plan.** For example
  - Boulder, CO: Explicit electricity tax to fund the ‘Climate Action Plan’ to reduce greenhouse gas emissions.
  - Tompkins county, NY: participating in “Cities for Climate Protection” campaign (5 step approach to reducing climate change)--- observation that government only makes up 1/2% of total county emissions -> local action plan used as an example for community wide efforts
  - Taos, NM: using EPA “Energy Star Challenge” to reduce energy use by 10% or more by 2015

In addition, we benchmarked the energy-related goals of the 5 large cities that were rated most sustainable in the category “Energy and Climate Change” by “SustainLane” 2008

(<http://www.sustainlane.com/us-city-rankings/overall-rankings>).

The top 5 cities, in order, are San Francisco; Seattle; Portland, OR; Sacramento, CA; and Austin, TX

The cities were judged using the following factors:

- City greenhouse gas tracking and carbon emission inventories
- Carbon emission reduction goals
- Overall renewable energy use
- Percentage for each city's alternative fueled vehicles as part of the total vehicle fleet was credited to cities with such fleets of greater than 12 percent of total fleet
- Additional credit was given to cities that had formally signed onto the US Mayor's Climate Protection Agreement begun by Seattle Mayor Greg Nickels, had instituted significant, wide-ranging mitigation or adaptation programs, or had mounted significant city-wide planning efforts as of December 2007.

The top 5 cities for energy and climate change had the following goals:

**San Francisco:** 20% reduction in GHG emissions for the entire city from 1990 levels by 2012 (<http://www.sfgate.com/cgi-bin/article.cgi?f=/c/a/2008/08/05/BAIB125JQO.DTL> )

**Seattle:** “Seattle has exceeded its immediate goal to curb global warming, cutting greenhouse gas emissions to 8 percent below 1990 levels, according to a city study released Monday”. ([http://seattlepi.nwsource.com/local/337254\\_climate30.html](http://seattlepi.nwsource.com/local/337254_climate30.html) ), “But population growth -- and residents' distaste for getting out of their cars -- could undermine those gains and jeopardize the city's ability to meet its Kyoto Protocol target five years from now, officials said.”

**Portland:** To reduce oil and natural gas use by 50% by 2030.

**Sacramento:** from a ‘sustainability master plan’ ([http://www.cityofsacramento.org/dsd/meetings/commissions/planning/2007/documents/Sustainability\\_Master\\_Plan\\_08-16-07.pdf](http://www.cityofsacramento.org/dsd/meetings/commissions/planning/2007/documents/Sustainability_Master_Plan_08-16-07.pdf) )

Goals:

- Reduce the use of fossil fuels, improve energy efficiency and increase the availability and use of locally and regionally produced renewable energy.
- Identify, replace and/or renovate high energy consumption facilities and systems to reduce energy use.

Targets:

- Adopt and implement a policy to reduce City Operations peak electric load by 10% through energy efficiency, shifting the timing of energy demands, and conservation measures.
- Adopt and implement a policy to increase the use of renewable energy to meet 10% of the City’s Operations peak electric load, above and beyond SMUD’s Renewable Portfolio Standard (RPS) goal.
- Achieve climate neutral energy use within City Operations (electricity, natural gas, fleet fuel).

- Work to achieve climate neutral fossil fuel energy use within City limits (electricity, natural gas, motor fuels).
- Work to maximize local and regional renewable energy production.
- Identify and catalog inefficient and high energy use facilities to develop a program of renovation and replacement.

**Austin:** Austin has a ‘climate protection plan’

([http://www.cityofaustin.org/council/downloads/mw\\_acpp\\_points.pdf](http://www.cityofaustin.org/council/downloads/mw_acpp_points.pdf)) which has elements for municipal, utility, homes and buildings, community and a ‘go neutral’ plan.

These 5 sub-plans include the following:

1. **Municipal Plan:** Makes all COA facilities, fleets and operations totally carbon-neutral by 2020.
2. **Utility Plan:** Implements the most aggressive utility GHG-reduction plan in the nation through dramatic increases in **conservation, efficiency and renewable programs**; requirements for carbon neutrality on any new generation; and by early retirement of existing utility GHG emissions.
3. **Homes and Buildings Plan:** Makes Austin building codes for both residential and commercial properties the most energy efficient in the nation.
4. **Community Plan:** Develops a comprehensive plan for reducing GHG emissions from sources community-wide.
5. **“Go Neutral” Plan:** Provides mechanisms for all businesses and individuals to reduce their carbon footprint to zero.

## ***Appendix E: Pittsford. Keeping It Green Committee Members***

### **Steering Committee**

Mark Greene

Steve Heinzelman

Damian Hodkinson

Priscilla Jacobson

Paul Knipper

Annie Yetter

Sandy Zutes (Chair)

### **Municipal Energy Use Subcommittee**

Beth Garver Beha

Brian Beha

Fritz Ebner

James Gripenburg

Damian Hodkinson (Chair)

Tim Miner

Madelynn Mueller

### **Residential and Business Energy Use Subcommittee**

Steve Heinzelman (Chair)

Tony Karpovich

Gerry Miner

Judy Turk

### **Product Lifecycle Subcommittee**

Jill Ausfeld

Judy Braiman

Pete Crooker

Ann Germanow

Betsy Helfrich

Mark Greene (Co-chair)

Barb Snios

Annie Yetter (Co-chair)

Jeanette Zavislan

### **Education and Outreach Subcommittee**

Ina DeSoto

Jacki Hagelberg

Allison Huffman

Priscilla Jacobson (Co-chair)

Paul Knipper (Co-chair)

Gina Martin

Evelyn Spruill

Jenna Taylor

Rick Taylor