



Annual Report 2018

Morgantown Municipal Green Team

Submitted to City of Morgantown City Manager on January 11, 2019

Active Members:

Holly Purpura (2017–18 chair), Joey James (2015–17 chair), Pamela Cubberly (secretary), Jim Kotcon (energy chair), Jing Zhang (planning chair), Joseph Kanosky (NETL), Karen Kalafat, Vanessa Reaves, Alex Davis, Jenny Selin (City Council), and Mark Brazaitis (City Council).

In 2018, the Green Team:

- Updated/developed documents on sustainability distributed by mail, online, and other outreach
- Participated in educational events on sustainability
- Followed up on implementation of recommendations of 2016 energy audits of 7 City buildings
- Researched potential for installing LEDs in city streetlights
- Drafted a City of Morgantown Climate Action Plan for City Council consideration and action
- Initiated and is actively involved in City proposal for West Virginia recycling assistance grant
- Supported continued action to expand use of renewable energy

Public Information and Education

Accomplished:

- **Recycling brochure.** After review of Republic Services' proposed recycling brochure, the team submitted its own design that was more accessible, accurate, and postable for distribution by Republic Services, which after some revisions and mailed out to its customers for 2018. The new brochure was more accessible, postable, accurate, and mistake free. The team still found some issues with the brochure as well as customers. In September, at the request of the City communications director, the team corrected and improved the 2018 brochure for posting on the City website and limited distribution by the team and City. The team remains in touch with the City manager on potential changes to the brochure due to market and other factors.
- **Energy policy guide.** At the March 27 City Council COW meeting, the Green Team presented an existing City energy policy guide¹ on energy-efficiency practices for distribution among City employees as a handbook in their daily work. City Communications Manager Andrew Stacy now

¹ City of Morgantown (date unknown). *Money, Energy, and Sustainability*. "A policy guide for city of Morgantown employees on reducing energy use and waste in local government operations."

regularly publishes a new City employee newsletter with tips on how employees can work sustainably, using information drawn from this guide. Soon thereafter, Andrew posted the guide and the team-designed recycling brochure to the City's recycling webpage for public access.

- **Public events.** Team members participated in the following public outreach events:
 - At the April 21 Earth Day event at the Farmer's Market, the Green Team, working with Mountaineers for Progress, shared information on recycling and handed out recycling brochures to interested visitors.
 - On September 8, the team also ran a green public education table at the Rise-Up Renewables day of action fair sponsored by the Mountaineers for Progress and Sierra Club.

For future public events, the team invested its \$500 City budget in printing a Green Team banner with grommets, a large poster describing the team's work, as well as 300 copies of the September team-corrected and -updated recycling brochure for distribution by the City/team.

- **Education: WVU Engineering Challenge.** On June 27, 2018, several members of the Green Team served as resource persons to assist with the West Virginia Engineering Challenge. Jared Bartrug in the WVU Engineering Department and others ran this summer program as an opportunity for high school students to study and propose solutions to real-life engineering problems.

Potential impacts:

- Team efforts on public information helped residents to recycle properly and reduce landfilling of contaminated recycling.
- By developing the means to organize green public information tables more widely at public events, the team hopes to broaden its reach "beyond the convinced" in the future.
- Participating engineering students received experience grappling with real issues and challenges faced by the City in becoming a sustainable community with ramifications for future career choices and work decisions.

Next steps:

- The team intends to purchase an inexpensive tent for 2019 outreach to the wider public on recycling.
- The team intends once again to work with the City and Republic Services on clarity and accuracy in likely updating of City recycling information given market trends in recycled materials.

IAC Energy Audits and Recommendations

Accomplished: City Manager Paul Brake budgeted \$12,500 in the 2018 budget for implementation. The City has already implemented a number of the IAC recommendations, such as installing motion sensors and LED lighting. The City will report on its success at the end of its fiscal year in mid-2019.

Potential impacts: The initial 2018–19 City effort to take advantage of "low-hanging fruit" has been a good start and will reap energy savings immediately by reducing costs.

Next steps: Full implementation of the IAC recommendations would significantly contribute to the CO₂e reduction metrics for the city's proposed Climate Action Plan (CAP). The reduction would be around 300 tons CO₂e/year. Therefore, the Green Team will propose the City increase the budgeted amount for

implementing IAC recommendations to about \$50,000 for 2019–20, that is, half the remaining expense predicted in the IAC report. The Green Team believes that, to achieve the goals of the Paris Accords, the City must make these cost-effective investments as soon as practicable.

LED Street Light Conversion

Accomplished: Last fall, the team formed a new LED Streetlight Working Group to explore whether lowered costs of LEDs might now make it feasible for the City to switch streetlights to these efficient bulbs. Dr. Ken Means (WVU Mechanical Engineering), Joseph Kanosky (NETL), Jim Kotcon (team energy chair), and Pam Cubberly decided to reach out to a number of contacts to establish whether Mon Power might now create a favorable tariff on LEDs for streetlights. However, research by former City liaison and City employee Trevor Lloyd through contacts at Mon Power revealed that the situation remains the same: any LED tariff created at this point would not save the City any money, which otherwise would have paid for LED installation. Apparently, the company does recognize that LEDs are the future.

Potential impacts: No *economic* benefits are likely at this time in pursuing an LED tariff with Mon Power; however, there *are* energy use / CO₂e reduction benefits. LED streetlight conversion would substantially contribute to the CO₂e reduction metrics for the City's CAP. The reduction would be around 980 lb. CO₂e/year/light when replacing high-pressure sodium lights with LEDs. The team will continue monitoring for any new opportunities for an LED tariff in the next year or two.

Next steps: The team will look for other opportunities to reduce energy use/costs of streetlights, in particular, identifying City outdoor or indoor lights not owned by Mon Power. The team has recruited a WVU engineering intern to carry out a complete inventory of City lights, prioritizing outdoor lights. The data will also be used in the draft climate action plan to be presented to City Council in January 2019.

Climate Action Plan Draft for City Council (Working Toward the Goals of the Paris Climate Accord)

Accomplished: The Sierra Club allocated funds to Downstream Strategies to develop a municipal climate action plan (CAP). Jim Kotcon organized a CAP Working Group that involves community members and, at the City Council's January 2019 Committee of the Whole meeting, will present its action plan on specific actions the City can take to meet the goals of the Paris Accords. Key initiatives on this list include several team-initiated projects either proposed or under implementation by the City.

Potential impacts: The team hopes the City and City Council will adopt and press forward on this action plan in 2019, with appropriate funding, especially as measures will save the City money in the long term.

Next steps: Recommendations in the team's January presentation to council will focus on actions that influence municipal emissions. Activities in 2019 will continue to develop plans whereby the City can incentivize greenhouse gas emissions reductions in the commercial and residential sectors.

Renewed Team Effort to Divert More Waste from Landfills

Accomplished:

- The team formed a Reduce/Reuse/Recycle (RRR) Working Group in late September, which is now actively working with City Grant Writer Robyn Hess to complete a WV Department of Environmental Protection Recycling Assistance Grant application, due July 1, 2019 for implementation from January 2020 to February 2021.
- The working group is considering a multifaceted proposal for these grant funds that targets improper recycling behavior. One scenario is to implement a *proven program to reduce contamination of recycling bins* and divert increasing amounts of recyclable materials from the

landfill. This behavior change effort would be reinforced by *a broad public education and media campaign*. At least *two subprojects would focus on key target audiences in schools and in off-campus student housing*. Given possible restrictions in future on what can be recycled, any work by the team will emphasize not only recycling but also reducing/reusing household materials.

- In October, several members of the RRR Working Group attended a solid waste summit hosted by the Monongalia County Solid Waste Authority to meet other solid waste stakeholders countywide and discuss how best to meet the solid waste needs of the community in the long term. Topics included recycling, e-recycling, composting, waste reduction, and education.

Potential impacts:

- If funded, the grant would support a major City effort (managed by the Green Team with City supervision) to address proper/increased recycling. Proven methods could bring the community together in reducing landfill waste and carbon emissions, contributing to reaching CAP goals.
- Communication and learning among stakeholders across Monongalia County could lead to better collaboration and planning for addressing long-term issues in solid waste management.

Next steps: The RRR Working Group is currently researching, contacting City staff for initial input and buy-in, recruiting citizens interested in assisting in grant development and implementation, and more. Once a detailed outline of a proposed grant-funded program is developed, the RRR Working Group will arrange a formal meeting with City and Republic Services personnel for input and revisions but, more important, will establish their collaboration on the proposed program.

Renewable Energy: Mountaineer Country Solar Co-op

Last fall, the Green Team agreed to co-sponsor the newest proposal for a solar co-op and the third in which the team has been involved. The Mountaineer Country Solar Co-op is serving as a buying club to provide economies of scale to local residents who wish to invest in rooftop solar installations.

Accomplished:

- In September, the Green Team co-hosted an information workshop at the Morgantown Public Library for local residents interested in going solar.
- Several members participated in Solar Open house events in October to share information on their solar installations, and recruit additional participants in the co-op.

Potential impacts:

- Solar co-ops are a cost-effective way for residents to purchase solar power installations and take advantage of economies of scale in buying bulk.
- The Mountaineer Country Solar Co-op is the third in the Morgantown area co-sponsored by the Green Team in the past four years. The two previous co-ops resulted in 29 installations totaling 184 kW of installed capacity.

Next steps: The Co-op will select among bids for an installer in early 2019, with the goal of having installations complete before the end of 2019.