Energy and Water Management Programs

• Enhanced programs in 2018:
  – Kirk Vizzier, Energy Management Coordinator (Public Works/Env. Sust. Division)
  – Jill Greiner, Water Conservation Program Coordinator (Public Works/Env. Sust. Division)

• Goal: Improve facility performance by optimizing how we use energy and water.

• All municipal and school buildings
Energy and Water Management Programs

Topics
- Electricity
- Natural Gas
- Water

Data
- Benchmarking
- Monitoring
- Analysis

Strategies
- Technology
- Operations
- Behavior

Goal
- Improved Performance
- “Walk the Talk”
Charlottesville City Schools

• Monthly Utility Meetings (CCS/PW)
• Coordination within PW on enhancing facility operations
  – Facilities Maintenance
  – Facilities Development
• Goal:
  – Use impactful strategies to reduce energy and water usage across school portfolio, leading to reduced utility expenditures and environmental footprint
CCS Energy & Sustainability Initiatives

• 2016 DOE Green Ribbon Schools

• Seven of nine CCS schools were ENERGY STAR® certified in 2008.
Integrating Renewable Energy Strategies

- 2012 - CHS (108 kW PV system)
- 2015 - Lugo-McGinness (9.4 kW system)
- CitySolar – funded capital program for City facilities started in FY15 (can expand to include CCS)
- Consideration of Power Purchase Agreement models (on-site, “virtual”, other)
  - Growing interest in the community to increase use of solar powered energy

www.charlottesville.org/citysolar
New Opportunities

• ENERGY STAR Cert. standards have increased overtime; need to keep up.
• Energy and water saving opportunities are available.
• Renewable energy is a viable option.
• We have the ability to provide more support in these areas.
Energy and Water Performance Resolution

- Shows foundational support for energy and water management across all schools
- Confirms commitment to reduce environmental impact of school buildings

Proposed Resolution for Charlottesville City Schools Energy and Water Performance

Whereas, Charlottesville City Schools are committed to personal and academic excellence and preparing all current and future students to be engaged citizens who make contributions to the well-being of their community, including the natural environment; and

Whereas, building energy use is a major expense and emitter of greenhouse gases contributing to air pollution and climate change; and

Whereas, actions that reduce negative climate and air quality impacts and increase energy efficiencies will also lead to a cleaner environment and a better quality of life for both students and community members; and

Whereas, renewable power installations, energy savings initiatives, and fuel-efficient transportation provide an educational opportunity for students and employees for everyday teaching and learning; and

Whereas, through practices and partnerships, Charlottesville City Schools strives for optimized energy and water efficiency while balancing equity, economic, and environmental impacts; and

Whereas, Charlottesville City Schools has been deliberate and proactive in implementing environmental improvement measures in school operations and taking actions that reduce resource consumption and associated greenhouse gas emissions, including:

- Implementation of a Guaranteed Energy Savings Performance Contract in 2007 to provide energy efficiency and infrastructure upgrades to three schools
- Certification by U.S. Environmental Protection Agency as ENERGY STAR® for seven of nine schools in 2009
- Installation of solar photovoltaic systems on Charlottesville High School and Lugo-McGinnis Academy
- Honored by U.S. Department of Education in 2016 with Green Ribbon Schools District Sustainability Award; and

Whereas, pursuing energy improvements and cleaner sources of energy is in line with City goals, values, and commitments on climate protection that acknowledge local and global implications; and

Whereas, Charlottesville City Schools aims to reflect and support the goals of the community it serves.

Therefore be it resolved that the Charlottesville City Schools, acknowledging the ongoing partnership with the City of Charlottesville and the reliance on City support in implementing energy and water performance improvement measures, commits to

1. Support improved performance of the school building portfolio through efforts to reduce energy and water use through management, conservation, and efficiency upgrades; and
Summary

Therefore be it resolved that the Charlottesville City Schools, acknowledging the ongoing partnership with the City of Charlottesville and the reliance on City support in implementing energy and water performance improvement measures, commits to

1. Support improved performance of the school building portfolio through efforts to reduce energy and water use through management, conservation, and efficiency upgrades; and
2. Work with the City to pursue new school buildings that integrate high performance standards related to energy and water; and
3. Partner with City staff to evaluate and pursue opportunities increasing the amount of clean energy used by Charlottesville City Schools, such as through increased onsite renewable energy.

Resolution Goals:

Acknowledging dependency on available financial resources in relation to the full mission of the schools, CCS is demonstrating:

• Collective support for improving energy/water performance
• Intention to integrate sustainability principals into long-term planning
• Support for learning environments that encourage and reflect responsible stewardship of resources

Thank you for your time and consideration.