Environmental Sustainability Council
Energy Transition Subcommittee
Thursday, September 1st, 7:30 - 9:30 pm Dogwood Conference Room, City Hall

MINUTES

CALL TO ORDER: Members Tim Stevens (Chair), Nisha Thirumurthy, Peter Adriance, Tom Cash, Aziz Shaik (High School student); **City Staff:** Kate Walker (Staff Liaison and Environmental Programs Coordinator); **Visitors:** Stefanie Kupka (Sustainability Coordinator, City of Fairfax), John Morrill (Energy Manager, Arlington County), Karen Jones (Resident/Tree Commission Member, City of Falls Church), Carey Sienicki (Council Member, Town of Vienna), Christina Caplan (Community Enhancement Commission, Town of Vienna), Susan Stillman (Community Enhancement Commission Chair, Town of Vienna), Clayton Preas (Noresco).

PUBLIC COMMENTS: No public comments were received.

APPROVAL OF MINUTES (August 4th): Minutes of the previous meeting were approved.

GUEST SPEAKER: John Morrill, Energy Manager for Arlington County, spoke about what small Virginia communities can do to accelerate the transition to renewable energy and enhanced energy efficiency in buildings. His comments were guided by questions prepared by ETS members at our previous meeting. See Appendix for a summary report.

OLD BUSINESS

Solar/green homes & businesses map: Kate and Tim have worked together to create a map of solar-powered and green homes and commercial buildings in the City. Tim plans to do a visual check on the solar installations. EV charging stations could also be added.

Greenhouse Gas Inventory: Nisha visited the library to talk about energy efficiency. On a quick walk-through, she established that they have about 800 light bulbs. She will run a cost/benefit analysis on replacing them with LEDs. The library does have an energy management system to track HVAC usage. Nisha is waiting to talk to Kathy Allan about it. Although the library may be scheduled for renovation after a November referendum, the numbers will still be useful just to see what could be done.

Bonus Density proposal: Loren & Tim met with City staff John Boyle (Zoning Administrator) and Doug Fraser (Building Official). The City doesn't use FAR to regulate buildings; it is done by height within planning zones. A whole floor as an incentive is not something our community would likely be willing to award. They will follow up by talking to developers to see if there are non-FAR-based incentives that would work for them.

Letter to City Council on Library and City Hall renovations: Tim has prepared a first draft of the letter. Tom will incorporate his suggestion for manufacturers to use our new buildings to showcase new equipment, which they might be willing to provide at a discount. This is an arrangement Tom has experience with. Committee members are invited to review the letter and suggest changes. The final

draft will be prepared after the ESC meeting on September 15th, when we will have more information about plans for City Hall. Tom will volunteer at that meeting to review the plans for City Hall.

Information Items:

- Aziz has taken on the Energy Library project, and is planning to visit Arlington Library with the CFC Library Director. Tim will join them, to ensure he has the information we need to pitch the project to possible sponsors. It's a good way to engage other organizations and get them bought into energy efficiency. Upfront costs are fairly well established in the information shared by AIRE, but ongoing costs and liabilities are an important question to address.
- Kate plans to publish an Environment Newsletter in September. Any contributions would be welcome.
- It was suggested that there might be some benefits to relocating our booth at the market, but Kate feels the current location has the advantage of attracting people from the Community Center as well as Market visitors.
- Work on the COG grant for the assessment of geothermal potential at the schools' campus continues. Separation of the schools and commercial activities means we will redirect the study to look at two scenarios for the schools, and will not include the commercial land.
- Operation EarthWatch is beginning again, and volunteers are needed. The parents group "Te Falls Church Way" was suggested as a possible source of volunteers.

7. Next Meeting

- Thursday, October 6, 2016

APPENDIX

SUMMARY OF DISCUSSION WITH JOHN MORRILL, ARLINGTON ENERGY MANAGER

Q1. How can a small resource-constrained jurisdiction develop a community energy plan?

Staffing is key to success. Where a full-time position has yet to be established or where additional staff support is needed, the jurisdiction may have other individuals with the expertise and interest to support programs. Community volunteers can play an important role in demonstrating the need and garnering support for dedicated staff, as well as working on specific projects. Networking with other jurisdictions is also an effective way to maximize resource efficiency.

It is also important to celebrate successes, however small, and bring them to the attention of leadership and the community.

Positioning the energy plan is also important – it could be presented specifically as an energy plan, or as part of a climate plan, or as part of the Comprehensive Plan, depending on the politics of the jurisdiction. Leadership and ongoing commitment from elected officials and senior management is necessary for continued success, so inclusion in the Comp Plan can be important. Kate noted that energy may be included in the proposed revision of the Natural Resources chapter of the City of Falls Church Comp Plan.

The Arlington initiative began as a climate program focused on emissions reduction in government operations. An energy plan for the community followed. The plan was developed by a task force of stakeholders including utilities, businesses and environmental staff and volunteers, and written by consultants. Business leaders were key drivers in setting ambitious goals. Cleaner power from the grid (based on EPA emissions factors) has helped Arlington meet its emissions reduction goals. The focus now needs to be on reducing energy demand.

Q2. What challenges has Arlington confronted with District Energy?

District Energy, in which a small number of physical plants distribute heating and cooling to several adjacent buildings, can achieve efficiency gains and economies of scale. In general, District Energy should be easier to implement for new construction rather than retrofitting. It is used on many college campuses, and can be a good option in densely-populated areas. However, if supply lines cross the right-of-way, the energy provider must be a public entity or a utility, which complicates matters. Economic analyses of DE potential for businesses in Crystal City showed only small potential financial benefits which were not sufficient to justify the project.

In the Courthouse neighborhood, the County has two large facilities (a detention center and courthouse/police headquarters building) as well as smaller buildings, where combined heat and power could offer energy supply security for the mission-critical facilities as well as economies in capital and operating costs. However, coordination of construction timetables is difficult, and there are high costs associated with working in a secured facility. The economics were not yet compelling, but possibility will be revisited as construction timetables for new buildings become clearer.

District Energy using combined heat and power can provide cleaner power than, for example, older coal-fired power plants, but emissions reductions in the grid supply have narrowed the benefit margin.

Q3. What programs can we implement without having an energy manager?

It is important to engage with people who have the interest and ability to take action. Whether internally or externally, you need to focus on one area at a time and get early successes you can build on. Avoid spreading your resources too thinly.

Q4. What programs can localities adopt in Virginia to reduce GHG emissions?

Virginia Municipal League's Go Green Virginia initiative (GoGreenVa) is a great starting point to find a digest of activities and programs. Arlington has joined the U.S. Department of Energy's Better Buildings Challenge as a new spur to improve. Their goal is to reduce energy consumption per square foot by 20% by 2020. Simple steps like changing to LED lighting can be immediately effective, not only in reducing the power consumption for lighting, but also reducing the need for air conditioning. Payback periods on LED retrofits are typically in the five to ten year range, depending on the age of the fixtures. MWCOG has a rideable contract with CNR Lighting for discounts on light bulbs.

The City of Fairfax, City of Falls Church, City of Alexandria, Richmond, Roanoke and Blacksburg all have staff who are members of the Urban Sustainability Directors Network. Stefanie Kupka has been an active participant, and has found their collaborative programs to be very useful.

Q5. What kind of educational programs have been most effective for encouraging reductions in GHG emissions?

Persistence and patience are required for community programs to have an impact. The Metropolitan Washington Council of Governments and Northern Virginia Regional Commission can be very helpful, and local jurisdictions can get together to exchange ideas. Inter-community competition (as used in the Solarize campaign) can be a spur to action.

Q6. What future possibilities might there be for collaboration between Falls Church and Arlington (e.g. PACE)?

Although procurement rules can sometimes act as barriers to collaboration, there are opportunities coming up: Arlington will soon select an administrator for Property Assessed Clean Energy (PACE) loans. The program would initially be countywide, and the hope is that it could go statewide. Rich Dooley is the point person on PACE for Arlington. The statewide Virginia Energy Efficiency Council just got a grant to promote PACE and act as a statewide clearinghouse on the topic.

Solar power purchase agreements are another possibility for rideable contracts.

Another idea still in the early stages is to form a regional NGO that could be a catalyst and facilitator for clean energy programs and projects in the business sector, including Class B offices, restaurants and multi-unit housing.

Government operations greenhouse gas inventories are another task which could be done on ridable contracts. Arlington has used SAIC and Cadmus Group for past inventories. One advantage would be to ensure that jurisdictions were using comparable protocols.

Discussion: Various options for funding energy efficiency projects were discussed. Typically, government departments pay their own utility bills, and want to keep any savings they achieve rather than contribute to a central energy fund. It was suggested that the savings could be "harvested" to a central fund after a year, but this seemed impractical given budget cycle times. An energy-savings competition between departments was also suggested.

One possible approach with no upfront cost would be to buy something like lighting as a service, so the contractor would own and maintain the fixtures and provide lighting at a fixed price. An Energy Savings Performance Contract (where capital costs are funded out of future savings) would be another possible approach. MWCOG's purchasing group might be able to facilitate a multi-jurisdiction contract.

Leveraging schools, from K-12 through universities, is also an opportunity area.