

Fairfax County Energy Task Force

Interim Report on

Buildings and Energy Sources



Plugging Into the Future

October 18, 2011

Index

| | |
|---|----|
| Commercial and Residential Buildings, Together with Their Energy Sources | 1 |
| New v Existing Buildings | 1 |
| Proposed Action..... | 2 |
| The Challenge | 2 |
| County Government Activity, Including the School System | 3 |
| Proposed Action..... | 3 |
| Technology | 3 |
| Building Operation | 4 |
| Action..... | 5 |
| District Energy | 5 |
| Education and Human Behavior | 5 |
| Proposed Action..... | 6 |
| Conservation v Sustainable Energy | 7 |
| Proposed Action..... | 8 |
| Market Demand, Financial Incentives, and Funding | 8 |
| Proposed Action..... | 10 |
| Gas and Electric Utilities, Telecoms | 10 |

Appendices

| | |
|-------------|--|
| Appendix A: | (1) Age Mix of Building Inventory in Fairfax County (2) Property Assessed Clean Energy Improvements Loans |
| Appendix B: | MWCOG Executive Summary: Technical Support for Integrated Community Energy Solutions, <i>Task 2, Development of Cost Benefit Information and Business Case for Integrated Community Energy Solutions</i> |
| Appendix C: | Davis Carter Scott report on existing programs to help property owners invest in energy efficiency: List of Jurisdictional Incentives & Policies for Existing Buildings |
| Appendix D: | Fairfax County Energy Inventory |

Executive Summary

Mission Statement

The Fairfax County Private Sector Energy Task Force will identify opportunities to develop a transformational vision, supported by achievable strategies that will define the steps our community can take to position itself as a leader in the area of energy efficiency, sustainability, and “green” technology.

Summary

The Task Force adopted the following principles:

- 1) Energy saving initiatives and policies should be based on sound business judgment, i.e. actions that provide environmental and economic benefits.
- 2) The proposals that will be made to the County Board should seek to avoid any increase in the regulatory burden for the county or its citizens.
- 3) The recommendations should be compatible with broader regional initiatives.

The interim report is presented in three sections:

- 1) Commercial and residential buildings, together with their energy sources
- 2) Transportation
- 3) Proposed short and long term goals

Section one is covered by this document.

Task Force members first sought to educate themselves. This first section of the interim report summarizes their findings with respect to:

- Commercial and residential buildings
- County government, including the school system
- Technology
- Building operations
- District energy
- Human behavior and the role of educational programs
- Conservation v sustainable energy
- Market demand, financial incentives, and funding
- Gas and electric utilities, telecoms, etc.

The county’s energy inventory forms Appendix D.

Commercial and Residential Buildings

For property, the existing building inventory offers the largest potential for energy savings in the near term, particularly for buildings constructed before 2000, as their heating and cooling systems may be nearing replacement, and their design pre-dates energy efficiency concerns. However, if the county adds new construction at the rate of 2% per annum, by 2040, more than 40% of the building inventory will have been constructed since 2010, i.e. in the era of energy efficient buildings.

Education in its broadest sense is an action the Task Force could take – an action that underpins every recommendation from policy to implementation. Education involves:

- Promotion to show employers and citizens how they can save money through energy efficient practices and products.
- Initiatives to engage employees, communities, homeowners, and people, i.e. to make energy saving fun, financially beneficial, and something to be proud of.

The Challenge

In Virginia's heavily regulated, relatively low cost energy environment, the challenge is to:

- 1) Demonstrate the cost effectiveness of environmental and economic benefits of energy efficient technologies to both commercial property owners and homeowners.
- 2) Educate citizens and small business owners about the environmental and economic benefits of clean and efficient energy usage. Create energy "literacy" so that residents can clearly evaluate energy choices.
- 3) Identify, and ideally eliminate, procedural barriers to clean and efficient energy use at all levels of county, state, and possibly federal government.
- 4) Publicize and expand upon the existing list of financial incentives for energy saving initiatives.

The Chairman's Private Sector Energy Task Force expresses thanks to the many business executives, specialists and members of county staff who have willingly shared their time and knowledge with the Task Force.

Fairfax Energy Task Force Interim Report on Buildings and Energy Sources

October 18, 2011

Based upon monthly briefings and discussion from February through September, the following interim report is respectfully submitted to the Fairfax County Board of Supervisors. This report is based upon the fact finding to date and indicates the direction for the continuing work.

Notes on each meeting and the presentation material can be seen on the Fairfax Energy Task Force web site <http://www.fairfaxcounty.gov/chairman/energytaskforce.htm>.

The Task Force adopted the following principles:

- 1) Energy saving initiatives and policies should be based on sound business judgment, i.e. actions that provide environmental and economic benefits.
- 2) The proposals that will be made to the County Board should seek to avoid any increase in the regulatory burden for the county or its citizens.
- 3) The recommendations should be compatible with broader regional initiatives.

The interim report is presented in three sections:

- 1) Commercial and residential buildings, together with their energy sources;
- 2) Transportation;
- 3) Proposed short and long term goals.

Section one is covered by this document. Sections two and three will be presented later.

The final Task Force recommendations will fall into several categories: those that can be implemented; those that will require county legislation; and those that will need state or even federal action. The regulatory environment is complex and the good offices of the county's legal counsel will be required to help the Task Force categorize its recommendations.

Commercial and Residential Buildings, Together with Their Energy Sources

Within Fairfax County, residential property accounted for 29.3% of county energy consumption per capita in 2006; commercial property accounted for 29%.¹

New v Existing Buildings

Within Fairfax County, 98% of the building inventory currently exists. Only 2% is expected to be added in 2011. The existing building inventory thus offers way and above the largest potential return in terms of energy savings, particularly in the near term. A county inventory forms Appendix A.

¹ Fairfax County GHG Inventory May 26, 2011.

However, if the county adds new construction at the rate of 2% per annum, by 2040, more than 40% of the building inventory will have been constructed since 2010, i.e. in the era of energy efficient buildings. New construction offers the greatest potential for energy savings on a per unit basis, and should be given equal priority with programs to improve the energy efficiency of property built before 2010. Buildings constructed before 2000 probably have greater potential for energy savings in the short term, as their heating and cooling systems may be nearing replacement, and their design predates energy efficiency concerns.

Further, programs designed to stimulate energy efficiency improvements in old structures will be different to programs required to stimulate energy efficiency in new construction. The guiding principles, however, remain common to both.



Source: Davis, Carter, Scott, Ltd.

Based on 2% per annum new construction

For Tysons Corner, the Fairfax County plan requires that:

- “Prior to 2013, all new buildings (in Tysons) shall achieve LEED basic Certification or equivalent.”
- “All buildings approved in 2013 or thereafter shall be certified to at least LEED Silver or equivalent.”
- “The goal is for Tysons to become carbon neutral by 2030.”

Proposed Action

Develop an understanding of the county’s building inventory by category and its probable replacement cycle.

The Challenge

In Virginia’s heavily regulated, relatively low cost energy environment, the challenge is to:

- 1) Demonstrate the cost effectiveness of environmental and economic benefits of energy efficient technologies to both commercial property owners and homeowners.
- 2) Educate citizens and small business owners about the environmental and economic benefits of clean and efficient energy usage. Create energy “literacy” so that residents can clearly evaluate energy choices.
- 3) Identify, and ideally eliminate, procedural barriers to clean and efficient energy use at all levels of county, state, and possibly federal government.
- 4) Publicize and expand upon the existing list of financial incentives for energy saving initiatives.

County Government Activity, Including the School System

County properties and services account for 3% of Fairfax County's total energy consumption.²

For Example, the county's Facilities Management Department's energy initiatives began nearly 10 years ago and were aimed at cutting government costs. The average 1% annual reduction achieved since 2001 by county government has resulted in a cost saving of \$7 million to date. The government center's lighting, heating and air conditioning retrofit project is saving almost 10%, or \$100,000 a year. The county invests where there is a payback within a reasonable amount of time so that the projects pay for themselves.

In 2007, Fairfax County led the creation of the nationwide "Cool Counties"³ initiative, in which localities adopt a goal of a 2% per annum reduction in energy consumption, and thus greenhouse gas production. Compounded annually, 2% is an extremely aggressive goal.

Today, the county is engaged in a broad array of energy efficiency projects, ranging from the recovery and use of methane gas from landfills, to LED parking lot lighting. More information can be found in the presentations, together with the URLs for the relevant web sites.

<http://www.fairfaxcounty.gov/chairman/energytaskforce.htm>

The county's extensive school system is a key part of its energy efficiency program. Since 2005, school building space has increased by 815,000 sq. ft., 10,880 additional students have been enrolled, but total energy consumption has remained flat, and overall energy efficiency has been improved by 6%. Overall, the school system reports a savings of approximately \$30 million in energy use.

Proposed Actions

- The county should continue to lead by example and should be encouraged to leverage this example with the private sector as well as state government. The county should track both site-based energy use and source-based energy use, perhaps on a Btu basis, which has been recommended by the National Academies and aligns more closely to GHG emissions rates and true energy efficiency measures.

Technology

Sustainable energy technology, such as solar cells, is approaching cost effectiveness in the Virginia environment, while savings from on-demand water heating systems, water conservation, and new lighting systems can repay the investment in their installation in as little as 1.5 years.

Advanced Metering Infrastructure (AMI) is an enabling technology that is being used to better manage constrained generation and transmission grid resources, introduce new generation sources, including renewable and distributed energy supplies, and help customers manage their energy use. This technology can also be leveraged to promote efficient natural gas operations. AMI currently is undergoing pilot programs in three areas of Virginia. There is a need to:

- a) Support wide scale application of AMI, particularly in Fairfax County, with the State Corporation Commission (SCC) when beneficial to end users.
- b) Encourage the building industry to design for AMI.
- c) Encourage smart metering applications for natural gas and water customers.

² Fairfax County draft GHG inventory – May 26, 2011.

³ County presentation to the Task Force on March 31st. The presentation is available at http://www.fairfaxcounty.gov/chairman/pdf/energy_3.31.2011_fairfax.pdf

Shaving the peak (see Conservation v Sustainable Energy) provides the electric utilities with a major incentive to conserve energy, as it postpones the need for capital intensive new power stations. Large commercial customers also have an incentive to shave their peak load, as these customers' demand capacity charges can be quite high, even though energy charges are about average on a national basis. Efficient building design and other alternatives, such as distributed generation and/or increased use of thermal energy, can forestall the addition of expensive new transmission and generation capacity, helping to maintain moderate electricity rates while offering key environmental benefits.

Use of Natural Gas (NG) generates less undesirable emissions than coal and converts 90% of the delivered fuel into usable energy as it is burned at application. The new Virginia gas distribution rates are designed to promote customer conservation. They closely align with the infrastructure costs incurred to serve the customer rather than being based on volumetric usage. The cost of the Natural Gas commodity, which is the largest part of the customer bill, is a direct pass through cost to the consumer. Under this model, the utility is immunized from fluctuations in gas price and given an incentive to help its consumers conserve via a growing variety of high-efficiency appliances, including on demand hot water heaters, appliance rebates, programmable thermostats, and energy audits.

Leadership in Energy and Environmental Design (LEED) certification and equivalent programs provide energy efficient standards for new as well as existing buildings. LEED certification of an existing building typically will improve its energy efficiency from 30% to 50%.

As the heating, ventilation, and air conditioning systems in existing buildings require replacement, typically at 10 to 20 year intervals, opportunities for correct sizing, higher efficiency, and improved operations occur.

Over the last decade, LEED certificated buildings have grown in market demand, and now command higher rents that more than offset the investment in the LEED certification.

The technology to construct buildings that run entirely on sustainable energy, and thus have zero emissions, exists, but its application may not be practical in all instances, due to cost and regulatory considerations.

Building Operation

Modern building systems have advanced technologically to increase performance and conserve energy. These systems go well beyond reduced lighting, heating, and cooling outside working hours. For example, pumps within the county headquarters building automatically and continuously adjust the flow of heating and cooling water to meet the temperature requirement at any point in time.

These sophisticated systems require qualified staff to maintain their efficiency. Task Force members noted that:

- For many buildings, better maintenance can reduce energy use by as much as 15%.
- Companies that raise energy consumption to the top management level are saving through the focus placed upon all aspects of the companies' energy use, including building system performance.

A few buildings now provide real time displays, often in the entrance lobby, to show the building's energy status and demonstrate the company's interest in energy conservation and sustainability (see Education and Human Behavior).

Action

- Stimulate top management interest in efficient building operation, as well as energy saving initiatives in all aspects of a company's operation.
- Provide information on the available software and systems for the real time display of building performance.
- Translate real time display into universal units of energy efficiency that can be easily compared, by either using Source-based Btu's per square foot or GHG emissions per square foot.

District Energy

District developed and distributed energy concepts could provide a key step that promotes the use of sustainable and renewal energy, beyond LEED certification, within Fairfax County. Critical elements that would determine the viability in Fairfax County for district energy initiatives include whether or not districts with sufficient energy generation resource and users are located within practical proximity; the need for changes in Virginia's regulatory environment; and whether or not distributed energy concepts are supported by private investors. A number of potential opportunities for their application may exist in the evolution of Tysons Corner, within the Lorton/South County area, and elsewhere in the county.

MWCOG recently launched an initiative to advance district energy utilities, combined heat and power and micro grids. The Executive Summary of the MWCOG report published September 11th forms Appendix B. Arlington and Loudoun Counties have initiatives exploring the commercial viability of district energy – Arlington with respect to Crystal City, and Loudoun regarding local generation and the reuse of waste energy from data centers.

While some experts argue that district developed and distributed energy concepts are outdated technologies (they have been in use for over 100 years), others believe they are a key step that needs to be taken beyond LEED certification in dense urban or campus environments, while still others argue that the concepts are impractical in Virginia's regulated environment and with voter attitudes conditioned by the image of old coal fired electrical generation. However, on-site generation of electric power has many potential benefits and can help shave rising demand for electricity, easing transmission and generation constraints. On-site generation enables the recapture of otherwise wasted thermal energy.

In reality, whether or not distributed energy concepts are applied is a decision that will be made by investors. If the investor sees potential in the application of these technologies, they will be applied.

Education and Human Behavior

Write and they read (If you're lucky).

Speak and they may listen.

Involve and they understand.

Education in its broadest sense is an action the Task Force could take *if its members so wished* – an action that underpins every recommendation from policy to implementation. Education involves:

- Promotion to show employers and citizens how they can save money through energy efficient practices and products.
- Initiatives to engage employees, communities, homeowners, and people, i.e. to make energy saving fun, financially beneficial, and something to be proud of.

Wetlands Solutions' building in Gainesville, Virginia⁴ is energy efficient and recently added solar arrays to its roof, which now provide up to 30% of the electrical needs for the building. A display in the company's lobby provides real-time information on the level of renewable energy being used, as well as other related information. Employee enthusiasm is palpable.

The county school system has evaluated various programs for "engaged" education and has adopted the Eco-Schools-USA Green Flag program⁵ at many schools. Other schools are being encouraged to participate.

The first priority for the Task Force is to educate ourselves regarding the:

- 1) Definitions and measurements of energy efficiency as recommended by The National Academies and as used in the county GHG emissions inventory.
- 2) Financial incentives currently available at various levels of government.
- 3) Initiatives available for reducing energy in existing homes and commercial properties.
- 4) Relevant products and services available to Fairfax property owners.
- 5) Existing successful programs.

A major innovative and sustained promotional program will be required if the county is to make a measurable dent in the energy consumption, particularly of existing properties. Innovative, because the message should not become stale with repetition – repetition to ensure that the information is at hand when a parallel event triggers a property owner's interest.

As much of the county's economic development comes from companies already here, indirectly the promotion also will promote the county as an attractive location for the new energy industry. As the promotion can provide a catalog of products and services, it may be possible to fund a portion of the promotional program with donations from the companies whose market will expand.

Part of the initial short-term promotional goal could be increased sales of energy efficiency products and services, as well as a modest reduction in energy use per capita.

The promotion will need to combine traditional as well as internet advertising, combined with public relations, and possibly a trade show.

Proposed Action

The Task Force should define the promotional objective for an education program and leverage:

- The FEDA's expertise to develop and cost a traditional promotional program.
- Washington Gas and other expertise on "engagement."
- Coordinate with the school system initiative.

⁴ The Northern Virginia Electric Cooperative (NOVEC) assisted Wetlands Solutions in receiving a grant to build one of the largest rooftop solar facilities in Northern Virginia.

⁵ "Shut the door, we're not paying to heat the whole neighborhood!" is a familiar cry from many childhoods. In Kentucky, that is being reversed by a school program that is causing students to encourage parents not to consume what they do not need.

Conservation v Sustainable Energy

A proposed goal assumes that half the energy reduction would be achieved through increased efficiency and reductions in demand, and half by a gradual move to the use of renewable energy. For example, in Virginia, Dominion Power's and NOVEC's "green power initiative" offers to provide its customers with electricity generated entirely from renewable sources for an additional 1.5¢ per kilowatt hour. To achieve this, the company has purchased Renewable Energy Certificates (RECs) from wind and biomass generating facilities in Missouri, Illinois, Indiana, Iowa, Louisiana and Pennsylvania.

NOVEC is building a new biomass power station in Halifax County, VA. It will be fueled by wood waste, called slash. The plant will use a special process to manage emissions and will therefore be carbon neutral. In other words, it will not add any more greenhouse gases to the ecosystem than what would be released through natural decomposition.

In Virginia, 31% of the electricity is generated from nuclear power stations, and 30% from traditional coal fired stations⁶. Both categories are old and financially depreciated. This is a principal reason for Virginia's very low electricity cost.

To meet growing demand, Dominion Power is importing about 25% of its electricity from other states. Eventually, Virginia's electric utilities will have to build more generating capacity, and the multi-billion dollar cost could lead to increased electricity costs for consumers, although Virginia's regulated utilities are seeking to apply new concepts to mitigate the need for future cost increases.

The generating capacity required is driven by the need to meet peak demands. "Shaving the peak" postpones the need for expensive new investment in generating capacity. Consequently, Dominion Power is planning to rent roofs on commercial properties in Northern Virginia for the installation of solar arrays, which will generate power on a relatively large and renewable scale, in order to shave the peak. Adopting policies that enable other non-utility third parties to own and operate on-site solar PV or other forms of distributed generation with long-term power contracts offers another cost-effective model to shave the peak.

This is one example of the initiatives being undertaken by Virginia's electric utilities and other regional energy providers to move to sustainable energy in the short to medium term. Longer term, increased use of Natural Gas, which can reduce but not eliminate a power station's emissions, and new technologies to enable carbon sequestration for coal as well as Natural Gas, will lead to a significant increase in the production of reduced carbon electricity and of electrical generation through use of sustainable fuels.

In southern Fairfax, the presence of electricity generation from garbage and methane capture, solar generation, and significant developable land owned by the county and private sector, juxtaposed to large public consumers of energy, provides a major opportunity to create a 21st century zero emissions, mixed use community. Public and private sector organizations should be encouraged to promote the generation of sustainable and renewable energy on their properties where feasible.

⁶ The remainder is generated by Natural Gas – 13%, and other sources, including imported power – 26%. The 2026 mix is projected by Dominion Power to be 20% other, 23% natural gas, 22% coal and 35% nuclear.

The cost of solar and wind generated electricity is expected to drop, leading to expanded use. In parallel, new, more traditional power stations will require a capital investment, which will be reflected in the Virginia consumer's electricity bills. The combination of increasing cost for electricity from traditional sources, coupled with the reducing cost of electricity from sustainable sources, likely will accelerate the ability to generate commercially viable, sustainable energy.

Consequently, beyond 2020, it is reasonable to expect an increasing volume of our electricity to be supplied from sustainable sources.

In the near term, however, progress toward the proposed goal can be expected to come from energy reduction initiatives.

Proposed Action

Energy Task Force should:

- 1) Investigate and recommend county actions to stimulate accelerated production and use of renewable energy, both for the private sector as well as for the county.
- 2) Support utility and private sector initiatives toward renewables.
- 3) Explore the potential for a Lorton area model zero emissions development.
- 4) Investigate third party power provider options with associated incentives for incumbent electricity providers to support such introduction.

Market Demand, Financial Incentives, and Funding

Businesses, and a majority of people, will base their energy conservation decisions upon reducing cost. Most major employers and a growing percentage of the population already are moving toward energy conservation and the use of renewable energy, as they see the long term benefits in terms of quality of life, and ultimately cost.

Incentives need to be applied to reward those already moving toward energy conservation and renewable energy production, and to incentivize those who are not yet so doing.

A number of programs applicable at various levels of government, from federal to county, already exist to help fund capital investment, and further incentives need to be developed within the county.

Existing programs to help property owners invest in energy efficiency are described in the Davis Carter Scott report that forms Appendix C. They include:

- 1) Tax credits and abatements: Abatements work by exempting property owners from paying taxes for a period of time. Credits work by crediting specific tax liabilities back to the relevant property owners, DCS states. Credits and abatements are being applied to homes and developments that achieve measurable, verifiable green building goals. Programs currently exist in the states of Maryland and New York, as well as in Baltimore County, MD, Cincinnati, OH and Howard County, MD. Solar property tax credits are currently available in Fairfax County; <http://www.fairfaxcounty.gov/dpwes/forms/solarenergy.pdf>.
- 2) Grants: Grants for green building developers and homeowners are being established by state and local governments to stimulate energy efficient projects. These programs can be funded through taxes or fees, or through federal and state funds. New York state, El Paso, TX, Pasadena, CA, and Seattle, WA offer grant programs.

- 3) Revolving loan funds may have significant appeal in Virginia's low tax environment.
 - Babylon, NY has a self-financing program. The town added carbon to its definition of solid waste, and then tapped solid waste collection funds for major home energy improvements. Residents repay the loan on a scale that takes advantage of the reduced energy cost. Repayment schedules are attached to the home and carry over to a new owner.
 - Berkeley, CA helps homeowners invest in solar arrays. Projects are repaid through a property tax on individual program participants spread over 20 years. The tax obligation remains with the property if the home is sold.
 - Cambridge, MA has created a city sponsored non-profit Cambridge Energy Alliance (CEA), which is investing over \$100 million over six years. CEA participants (residents and businesses) can pay for their energy efficiency projects through the CEA. Loan repayments are matched to energy savings. Reportedly, no up-front costs are required for energy saving installations and there will be no cost to Cambridge or state taxpayers.
 - Milwaukee, WI offers financing for home energy retrofits through its Me2 program. Me2 offers long term repayment through additions to municipal or utility bills, reportedly at less than the cost of the energy saved. Repayment schedules are attached to the home and carry over to a new owner.
 - Sonoma County, CA provides loans for energy efficient projects to commercial and residential property owners. The loan is repaid through an assessment on the property paid with the property tax. Five, 10 and 20-year terms are available at a 7% interest rate.
- 4) Technical assistance programs are provided by Oakland, Pasadena, San Diego and West Hollywood in CA, and are being considered by Washington, DC.
- 5) Marketing assistance is being offered by Oakland and San Diego, CA through recognition and technical assistance.

Within Virginia:

- 1) Business Improvement Districts (BIDs) – when 70% of landowners in an area agree, they can petition the county to form a BID in which real estate taxes will be increased by 1% to create a fund that members can draw upon to finance improvements. Community Development Authorities (CDAs) are another vehicle that can be used. Both need clearly defined benefits for those taxed.
- 2) Energy calculators exist on most utility company web sites to enable a homeowner to see the anticipated savings from the installation of new windows, more insulation, and other energy saving initiatives. For commercial operators, the utilities will provide audits and energy saving recommendations: *NOVEC* – <http://www.novec.com/Power Use It Wisely/index.cfm>; *Washington Gas* – <https://eservice.washgas.com/>; *Dominion Power* – <http://www.dom.com/dominion-virginia-power/customer-service/energy-conservation/ec-programs.jsp>.
- 3) LEAP is an offshoot of the Federal Energy Star program started by the EPA to certificate energy efficient consumer products. The EPA initiative includes a pilot building labeling program. To gain the energy star certificate, a home would have to achieve a 20% reduction in energy. The expectation is that the acquisition of energy star labeling would improve the value and resale value of the home.
- 4) The PACE program may provide financing for energy efficiency improvements. Under the program, the loans run with the property, not the ownership, and so can be long term in nature. The PACE concept has experienced legal difficulties in California and may have constitutional challenges in Virginia. But, there may be elements of the concept that can be adapted to provide an attractive long term incentive, possibly in conjunction with the banks.
- 5) Federal tax credits of \$500 for energy efficient improvements are available through calendar 2011.

New initiatives to be looked at include:

- 1) Local banks could be invited to establish loan programs for energy efficient improvements. Energy efficient buildings are in demand and command higher prices, and therefore, should provide a reliable investment for banks.
- 2) The Planning Commission's initiative to offer the Board of Supervisors an updated green building policy should be supported and the Commission should be encouraged to support development of renewable energy facilities and energy efficiency on a commercial scale.
- 3) Define with county staff, criteria for identifying green building initiatives that would justify moving a project to the front of the queue for site approval.
- 4) Explore with county staff ways in which the site approval timescale for advanced green projects could be further compressed. Under this approach, the developer or building owner would assemble their team to meet with county staff in order to focus on resolving all issues within a compressed timescale. In competitive states, counties have been known to assemble a Tiger team to approve a desired commercial development within 24 hours. Condensing the site approval time would eliminate a major element of risk for a developer, and hopefully save county staff time. A similar concept could be applied to projects that promote renewable energy facilities on a large commercial scale, e.g., the Tysons redevelopment.
- 5) The adoption of policies that will attract third parties to finance or own small clean/renewable distributed generation installations.

Proposed Action

- 1) Develop incentive knowledge and generate proposals.
- 2) Coordinate with the Planning Commission.
- 3) Work with county staff to develop the Tiger team approach.

Gas and Electric Utilities, Telecoms, etc.

Proposed Action

- 1) The Fairfax Energy Task Force should bring the gas and electric utilities together to explore the potential for initiatives that are mutually beneficial while advancing district energy utilities, combined heat and power and micro-grids to shave power station peak demand, improve energy efficiency, and reduce emissions, i.e. initiatives that benefit utilities, building owners and consumers.
- 2) Look for energy savings in telecommunications – provider as well as user, data centers, and in other activity involving high energy use.