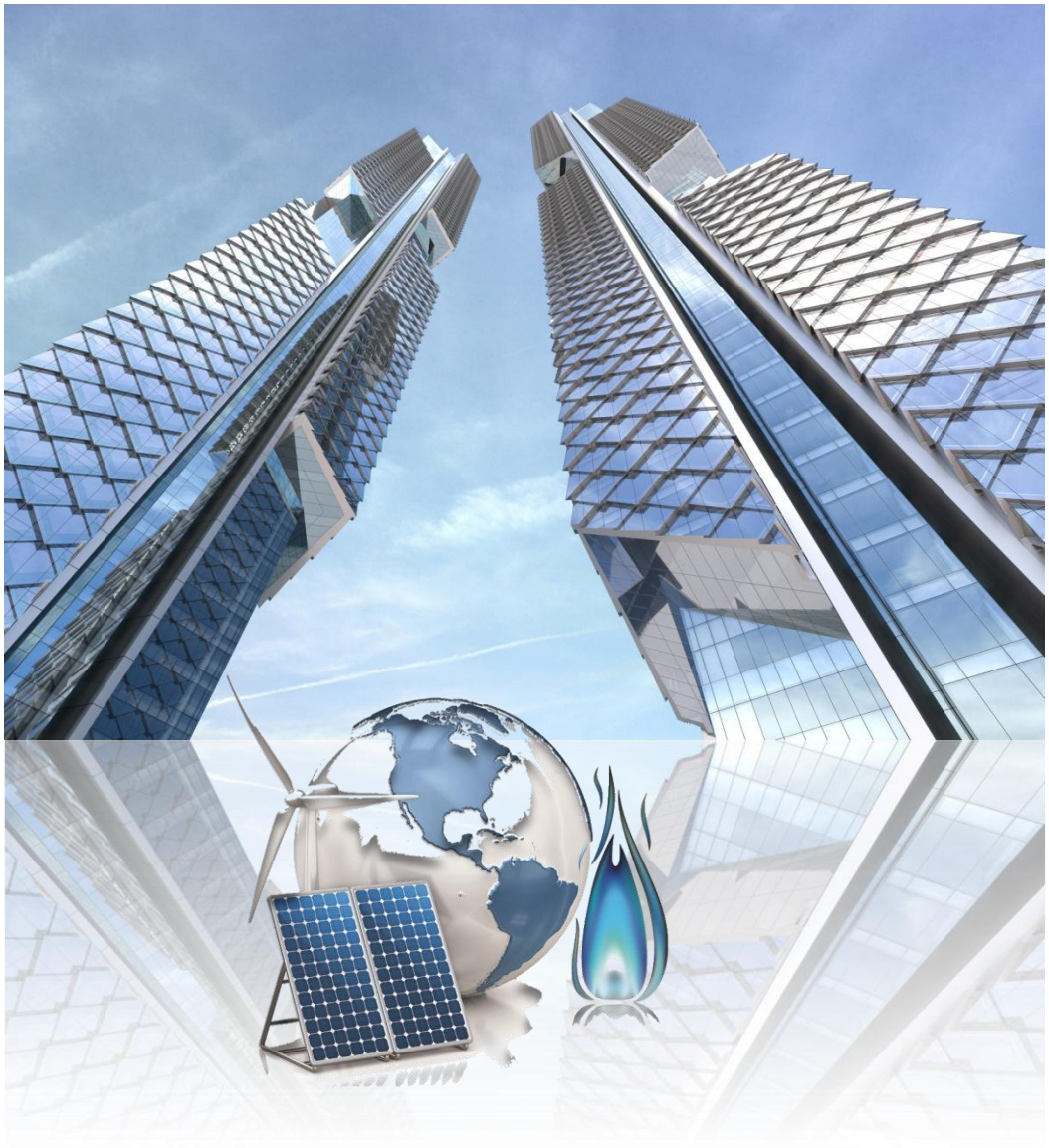
Fairfax County Chair's Private Sector Energy Task Force Report and Recommendations For the Board of Supervisors



Energizing the Future

September 26, 2012

Private Sector Energy Task Force Members

The Honorable Sharon Bulova, Chair, Fairfax County Board of Supervisors
The Honorable Mike Frey, Fairfax County Board of Supervisors
The Honorable Penelope Gross, Fairfax County Board of Supervisors
The Honorable Jeff McKay, Fairfax County Board of Supervisors

The Honorable Ken Plum, Virginia House of Delegates

Leo Schefer, Washington Airports Task Force – Chair
Art Walsh, Walsh Colloucci Lubeley Emrich & Walsh, P.C. – Chair, Process Committee
Lon Anderson, AAA Mid-Atlantic
Larry Baucom, The Greenwich Group International, LLC
Douglas Carter, Davis, Carter, Scott, Ltd.
Adrian Chapman/Melissa Adams, Washington Gas
Jim Corcoran, Fairfax County Chamber of Commerce
The Honorable Jim Duffey/Cameron Kilberg, Commonwealth of Virginia
Aaron Georgelas, The Georgelas Group
Mark Gibb/Dale Medearis/Steve Walz, Northern Virginia Regional Commission
John Jennison, Fairfax County Federation of Citizens Association
Gary Kirkbride/Kurt Thompson, Dewberry
Priscilla Knight, NOVEC
Stella Koch, EQAC
Douglas Koelemay, SAIC/CTB Member
Martha Marks, NAIOP
Thomas McCabe, Northrop Grumman
Margaret McKeough/Bill Lebegern, Metropolitan Washington Airports Authority
Conrad Mehan, Enviro Solutions, Inc.
Jon Peterson, The Peterson Companies
William Prindle, ICF International
Phillip Sandino/Carolyn Moss, Dominion Virginia Power
Dr. Edwin Schneider, George Mason University
Jennifer Siciliano/Seema Wadhwa, Inova Health System
Robert Templin, NVCC
John Thillmann, Landmark Atlantic Holdings, LLC
Dean Tistadt, Fairfax County Public Schools
George Vradenburg, Vradenburg Foundation
Robert Wassmann, Noblis

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

Acknowledgements

Tom Biesiadny, Fairfax County
Farid Bigdeli, VDOT
Steve Bruckner, Sierra Club
Robert Bryant, HC Yu
Roger Frechette/Kevin Cahill, PositivEnergy Practice
Mary Beth Coya, Northern Virginia Association of Realtors
Jay Fisette, Arlington County Board
Dr. Peter Garforth, Garforth International, LLC
Doug Guernsey, Gurensey Office Products, Inc.
Ronald Kirby/Jeffrey King, MWCOG
Kathy Lawson, Davis Carter Scott, Ltd.
The Honorable Andrea McGimsey, Loudoun County
Michael Mondshine, SAIC
Garrett Moore, VDOT
Najib Salehi, Loudoun County
Michael Schmidt, Golin Harris
Dr. Dann Sklarew, George Mason University
Hsing-Chung Yu, HC Yu

Staff Support

Kambiz Agazi
Katie Boyle
Ellen Eggerton
Charlie Forbes
Jenna Gorter
Susan Hafeli
Terri Hall
Noel Kaplan
Michael Long
Clayton Medford
David Molchany
Steve Sinclair
Mark Thomas
Sterling Wheeler

Cover Illustrations

"Dancing Dragons" by:
Architect: Adrian Smith+Gordon Gill Architecture; Engineer: PositivEnergy Practice

Energy Design by:
Washington Gas

Preamble

The Fairfax County Chair's Private Sector Energy Task Force's (ETF) mission was to 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.

The ETF adopted the following principles:

1) Energy saving initiatives and policies should be based on sound business judgment, i.e. actions that provide economic as well as environmental benefits.
2) The proposals 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.

As we move into an ever more energy conscious 21st century, Fairfax County seeks to increase its energy efficiency in order to sustain its appeal as an internationally recognized business location. *The world's energy demand has quadrupled since 1955 and is projected to double by 2030.*[1] *Energy efficient areas are less likely to be affected by cost, supply and carbon tax issues*.

Today, Fairfax County is competitive with neighboring localities, but is beginning to fall behind competitive business locations in Europe and other parts of the world. Within the National Capital Region, the Metropolitan Washington Council of Governments (MWCOG), as well as Fairfax County and neighboring localities, are embarked upon long term energy efficiency initiatives. How to achieve these long term energy goals remains a question.

The 2006 Greenhouse Gas emissions (GHG) for Fairfax County were approximately 12 metric tons per capita, excluding federal activity. Greenhouse gas emissions were taken by the ETF as a surrogate for energy consumption.

Table 1

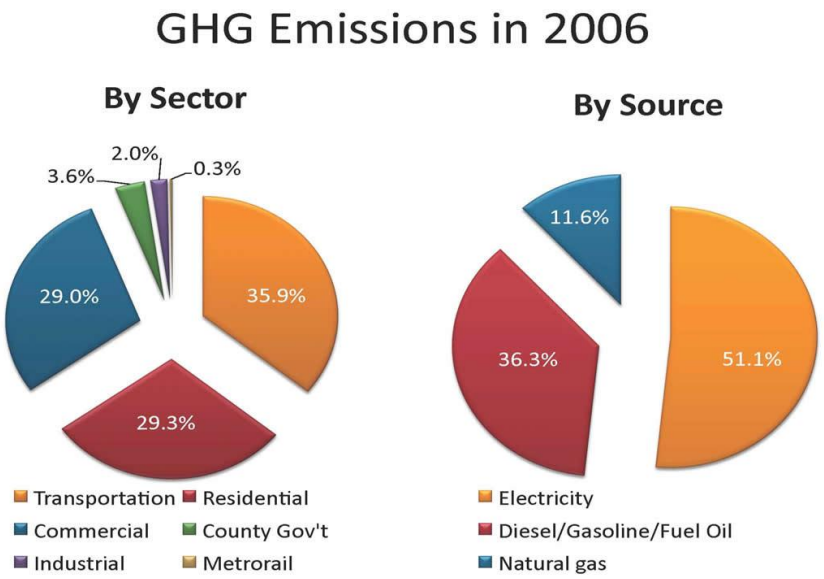
Using Greenhouse Gas Production as a Surrogate for Energy Consumption	Greenhouse Gas/Capita/Year (Metric tons of CO_2)
European Union	10.5
Germany	11.7
Denmark	14.1
Canada	22.6
USA	22.8
Communities with Breakthrough Targets	
Fairfax County	12.0 with 80% reduction by 2050 as part of a regional goal
Arlington County	14.6 with 3.0 tons as a goal
Loudoun County	14.2 with 6.0 tons as a goal
Manheim (Germany)	6.0 with 4.5 tons as a goal
Copenhagen (Denmark)	3.0 with a zero goal

Information from Garforth International, Fairfax County, and MWCOG

[1] Garforth International

The MWCOG, of which Fairfax County is a member, set a goal in 2008 of reducing GHG emissions by 20% by 2020, and 80% by 2050. The District of Columbia's Downtown Business Improvement District (BID) currently leads the nation's cities in GHG reduction, aided by a $398 million investment by the federal government in energy efficiency improvements for its office presence.

In 2006, 36.2% of Fairfax County's energy was consumed by transportation, 29.3% by residential property, 29% by commercial property, 3.6% by County government, and 2% by industrial activity. These figures are based on a GHG emissions audit conducted for the County by George Mason University.



The ETF identified strategies for improving energy efficiency in buildings and transportation, as well as the barriers faced by the County, its businesses and citizens, in their desire to improve energy efficiency and reduce consumption on a per capita basis. The three principal "challenges" or barriers to be addressed are:

1) Regulatory and process barriers in Virginia and Fairfax County, as well as the uncertainty they create for the private sector investor, whether homeowners or employers.
2) The capital investment required versus the payback period to achieve the energy cost savings and marketing benefits to be gained.
3) General lack of knowledge of the money to be saved from an investment in energy efficiency, and of the many tools available to assist homeowners and businesses alike with energy efficiency improvements.

As the change in energy consumption can be assessed with accuracy, the County, in setting goals for reduced energy use (and therefore energy efficiency increases), can rely on measured results achieved by individual properties. No requirement need exist to approve in advance the changes a property owner wishes to make within code to achieve increased energy efficiency. Consequently, the County should set goals rather than apply prescriptive requirements. Energy consumed by a building is:

a) Measured continually by an independent party – the utility provider.
b) Can be adjusted for variable weather conditions using accepted criteria.

To address these challenges, the County should:

1) Stimulate and sustain an educational program to generate enthusiasm for investing in energy saving in order to save money and improve the efficiency with which we all use the energy we buy. Education in its broadest sense underpins every ETF 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[2], and people, i.e. to make energy saving fun, financially beneficial, and something to be proud of.

Many world class employers already have energy cost reduction programs in place so the principle target audience is smaller business and homeowners.

2) Provide Incentives

   An incentive should meet the following criteria:

   a) It must be revenue neutral or positive for the County.
   b) It must not increase the regulatory burden for the private sector, nor add time or complexity to move building modifications or new buildings through the County process.
   c) It must provide a worthwhile incentive to the building owner or property developer.

   Two incentive concepts, possibly three, emerged from the discussion, are being refined by the Process Committee chaired by Art Walsh, Managing Shareholder, Walsh Colucci Lubeley Emrich & Walsh, PC, and will be submitted to the Board once finalized. The two are:

   a) Tax Abatement

   - Hold real estate taxes on energy efficiency improvements level for a period corresponding to the payback period required to return the energy investment through energy savings. The County has the legislative authority[3] to provide tax abatement as an incentive for periods of up to 10 years. The property owner gains the abatement by demonstrating through utility bills, adjusted for weather, that the agreed level of energy reduction has been achieved.
   - The precise methods for achieving the energy reduction are the concern of the property owner. The County's concern is limited to granting the abatement based on a demonstration of the energy efficiency gain.

   b) Transferable Development Rights (TDRs)

   Property owners would be allowed to sell or otherwise transfer unused development density in order to generate a financial incentive for capital investments aimed at improved energy efficiency.

   Both these concepts meet the three criteria.

[2] County staff has already gained a federal grant to fund a pilot promotion aimed at homeowners.

[3] The county used this authority once before over a period of 5 years for a different purpose, and was surprised that more building owners did not use the program, possibly due to associated complexities created within the County process.

Fairfax Energy Task Force Recommendations

The Fairfax County Chair's Private Sector Energy Task Force's (ETF) mission was to, "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."

In so doing, the ETF identified three principal barriers to change, namely:

1) Regulatory and process barriers in Virginia and Fairfax County, which create uncertainty for the private sector investor, whether homeowner or employer.
2) The capital investment risk vs. the payback period.
3) The unrealized opportunity for residents and businesses to reduce their energy cost through use of existing programs.

To go beyond resolution of those barriers, to support the County's existing ambitious goals for energy efficiency, and to stimulate a transformational vision, the ETF offers the following recommendations to the County through its Board of Supervisors.

Recommendations

1) **Support creation of an independent Energy Public/Private Sector Task Force – an Energy Alliance (see page 6) – that would operate as part of the private sector and be responsible to its independent Board of Directors. The Energy Alliance's purpose would be to:**
   a) Pursue the detailed recommendations in the ETF's supporting report, including;
      - The accelerated production and use of renewable energy for buildings and transportation,
      - Support for utility and private sector initiatives towards these renewables.
   b) Stimulate a transformational energy project with the power to focus world attention upon Fairfax County. Options include a major near-term geothermal project, microgrid/district energy technologies in Tysons redevelopment and the potential for zero Greenhouse Gas emissions projects in the Lorton Green Triangle, leading ultimately to 21st century building concepts.
   c) Work for improvements in County land use and state building code for the application of all forms of renewable energy and energy efficiency technologies.
   d) Build popular support for energy initiatives as well as ambitious energy goals.

2) **The County should work in partnership with the Energy Alliance, build upon the current County pilot program (Energy Action Fairfax) to stimulate and sustain a broad based public outreach program, and to generate enthusiasm and popular support for cost effective energy and emissions savings,** i.e.:
   - Promotion to show employers and citizens how they can save money through energy efficient practices and products.
   - Initiatives to engage employers, communities, homeowners, and citizens, i.e. to make energy saving fun, financially beneficial, and something to be proud of.

3) **The County should develop revenue-neutral incentives to encourage property owners to invest in sustainable and efficient energy improvements to existing, as well as new buildings.** This recommendation applies across commercial and residential property owners from large companies to small businesses and private homeowners. (The recommendations being developed by the ETF's Process Committee will offer the County such incentives for consideration by the Board, its Planning Commission and County staff.)

4) **Develop a strategy that can adapt to meet unforeseen developments, market forces and matters beyond the County's control, to enable the County to meet its aggressive goals** of:
   a) A carbon-neutral Tysons Corner by 2030 as noted in the Tysons Land Use & Transportation Concept Plan accepted by the County.
   b) Support for the regional effort to reduce carbon emissions 80% from the MWCOG baseline by 2050 through collaboration with the private sector and regional organizations.

5) **Review the transportation report and relay its findings to the Transportation Planning Board (TPB), VDOT, the Northern Virginia Transportation Authority and other relevant groups**. Implement those portions of the report which are within the County's authority and work with TPB to implement those elements which are regional.

6) **In partnership with the proposed Energy Alliance (Recommendation 1) facilitate the application of renewable, green and efficient energy technologies within the state's regulatory structure and within the County's own process**. In so doing, cooperate with other Virginia localities, agencies, utility companies and the private sector when appropriate.

7) **Create, with the private sector pilot projects to demonstrate the use of local alternative energy sources for small and large scale development**. These Projects should:
   a) Not require legislative changes, nor changes to county policy.
   b) Be revenue neutral for the county or have the potential for revenue generation.
   c) Could be initiated within 24 months

   The Lorton Green Triangle is a potential example.

8) **As County energy policies evolve, they should seek economic as well as environmental benefits, avoid any increase in the regulatory burden, and be compatible with broader regional initiatives**.

Proposed Energy Alliance

Actions to improve energy efficiency and to reduce GHG emissions are quite literally exploding across the United States and around the world. In the United States, some of these initiatives are inspired through local and state government, others through the private sector, most through both sectors working together. One of the most successful is the downtown DC Business Improvement District's (BID) "eco District."[4]

An independent public/private sector partnership between the County and a representative group of private sector interests is strongly recommended as the best vehicle to implement the mission. Such an independent body can be empowered with the knowledge and expertise from both the public and private sectors, provided it is free to act without constraint as an independent, non-profit, non-partisan task oriented body. Such a leadership body can stimulate the "transformational vision" sought by the County. The proposed body can be housed within an existing organization, but it should be independent because:

a) It needs a clear, unambiguous goal, which would not be confused with the other priorities of a larger organization.
b) Its leaders should be able to move quickly and decisively to grasp opportunities without the procedural constraints inherent in a larger organization, whether public or private.

The independent body should be governed by a Board of Directors that:

a) Believes in the mission.
b) Is representative of a broad cross section of the County, including at least one County government representative, preferably the County Executive.

The Board's job is to set the organization's policy, to hire the CEO and to leave that executive free to hire a staff and run the organization within the bounds of the policy set. The Board's other responsibilities are to ensure adequate funding to support their policies, and to provide reach, knowledge and credibility to support the staff's work.

Creation of a strong, representative, influential Board is critical. An effective way of creating and refreshing the Board should be developed. It is critical to success that the Board and its CEO work in harmony toward clear, easily-understood objectives.

The new unit would essentially be a small private sector "commando" operating with an understanding that:

1) You catch more flies with honey than with vinegar.
2) Problems should be solved, not fought.
3) Solutions will not be found in the process or thinking that created the problem.
4) It's amazing what can be achieved if you give the credit to others.

The partnership's charter should require renewal every three years, based upon the results or lack thereof being achieved.

[4] The EPA rates DC as the nation's leading EPA green power community, with more than 8% of its energy coming from green power purchases (as of March 2010). EPA also credits the District with the highest per capita rate of Energy Star labeled properties in the country. Downtown DC is helped by its federal presence, as the GSA – DC's largest property owner – has invested $398 million in energy efficiency retrofits in its downtown DC BID area-owned properties, and mandates green requirements and preferences in space that it leases in private buildings.