

# **Sustainability: The Arlington Story**

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**Chair, Arlington County Board**

*October 13, 2010*

*Land Use Planning and Transportation Strategies  
The Governor's Conference on Energy  
Richmond, Virginia*

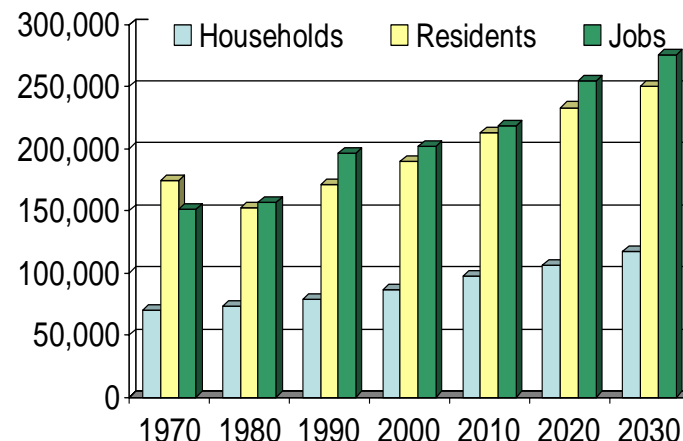
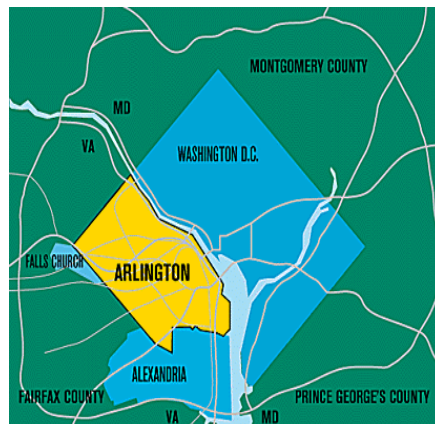
Integrated  
planning:  
linking  
many  
efforts  
and  
programs



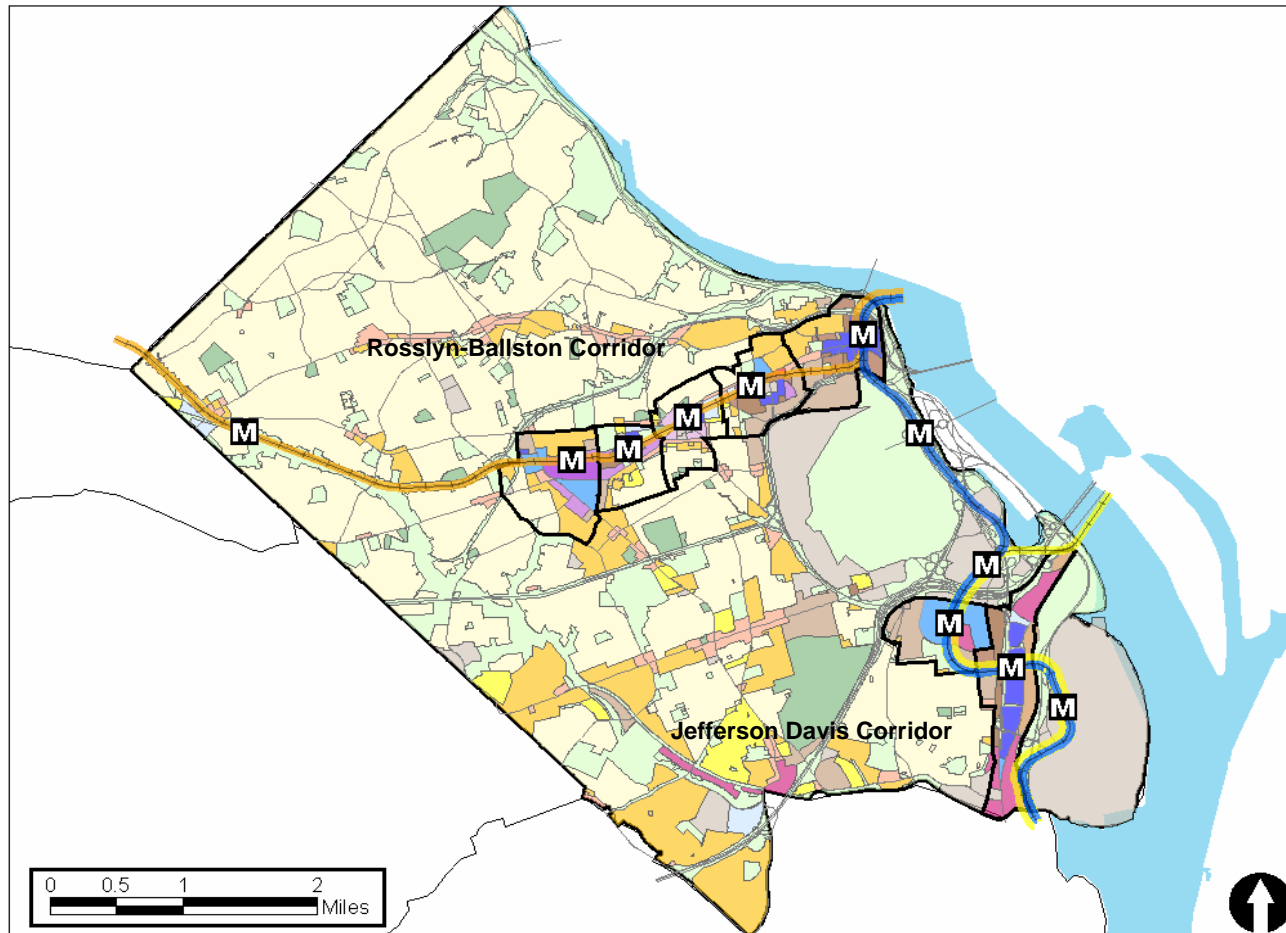
## Arlington's Framework for Sustainability

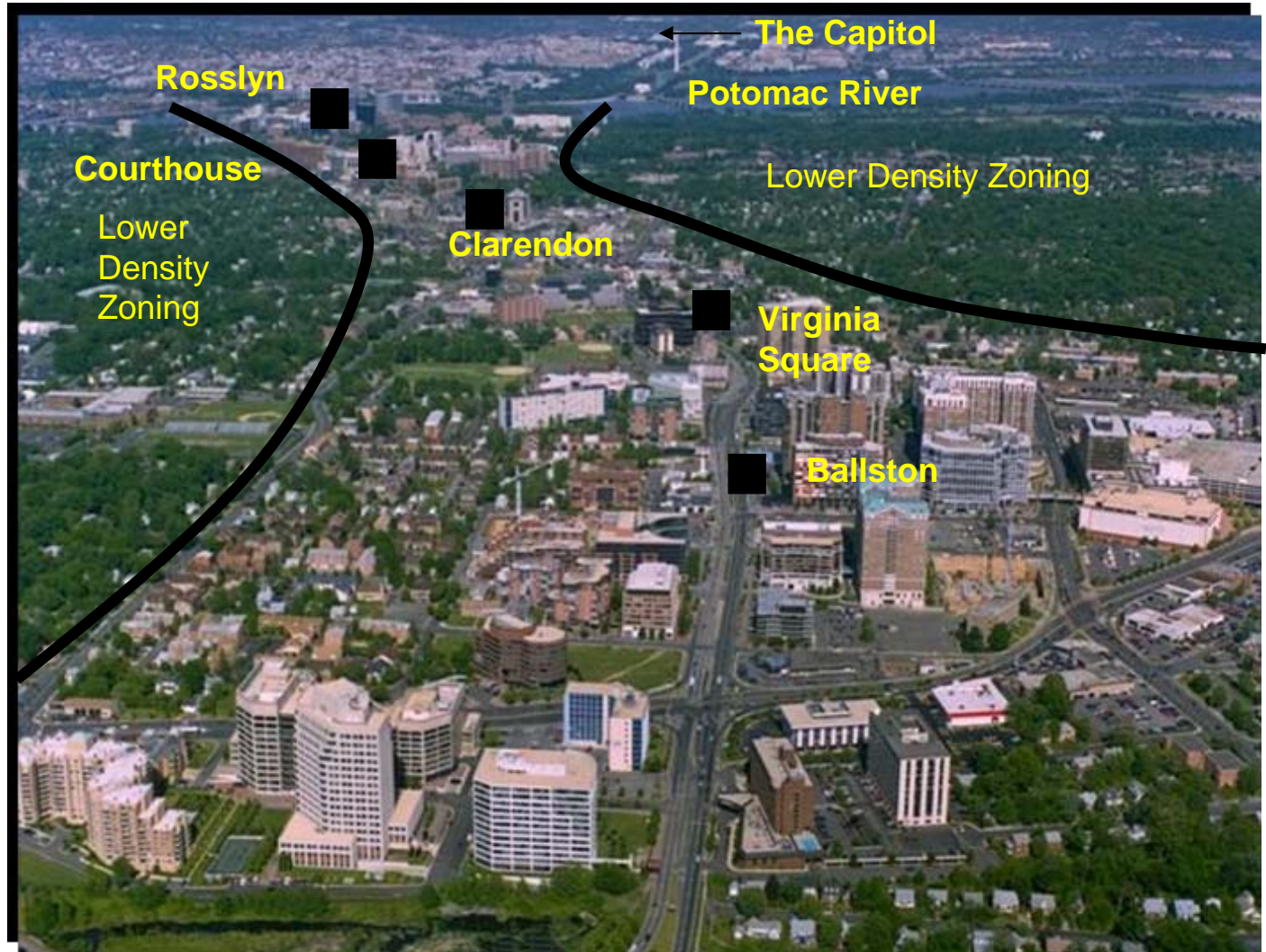
1. Smart Growth: Integrated Land Use & Transportation Planning
2. Environmental Planning
3. Community Energy Planning

***Planning, Planning, Planning....***



- Arlington, Virginia – 25.8 sq. miles in area including federal lands
- Home to major federal facilities: Pentagon, Fort Meyer, Arlington Hall
- Home to National Airport
- Continuing to grow – Currently 212,000 residents with over 247,000 residents and 280,000 jobs projected by 2040

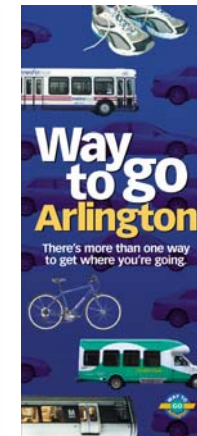






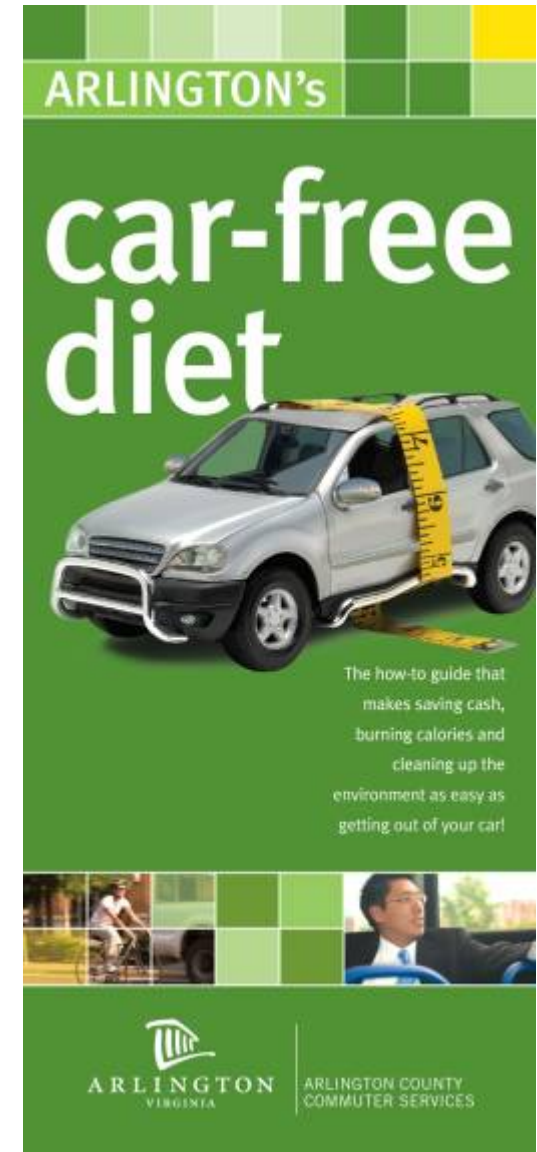
- Concentrate mixed use development around transit stations
- Create environments rich in travel choices
- Provide comprehensive travel information and encouragement
- Expand TDM requirements on specific developments
- Increase focus on parking management (supply and pricing)
- Long-term commitment

- Sales – Arlington Transportation Partners
- Retail Commuter Information and Support – three commuter stores, one mobile store
- Marketing
- Operations & Logistics
- Special Initiatives —  
BikeArlington,  
WalkArlington,  
Carsharing
- Transportation research





- Marketing campaign/how-to guide
- Builds on existing programs
- Incorporates public health and fitness component
- Diet calculator: tells you how much **money** you will save, **calories** you will burn & CO2 **emissions** you will reduce



- Participation in County-wide Commuter Services programs
- Transit subsidies
- On-site improvements including sidewalk/streetscape and bicycle facilities
- On-site travel information
- Parking management
- Transportation performance surveys



*EPA – Potomac Yard (2006)*

*ATP participant*

*Employee transit subsidies*

*Dedicated transitway and station*

*Sidewalk and bicycle improvements*

*Market-rate parking charges*

*On-site transportation coordinator*

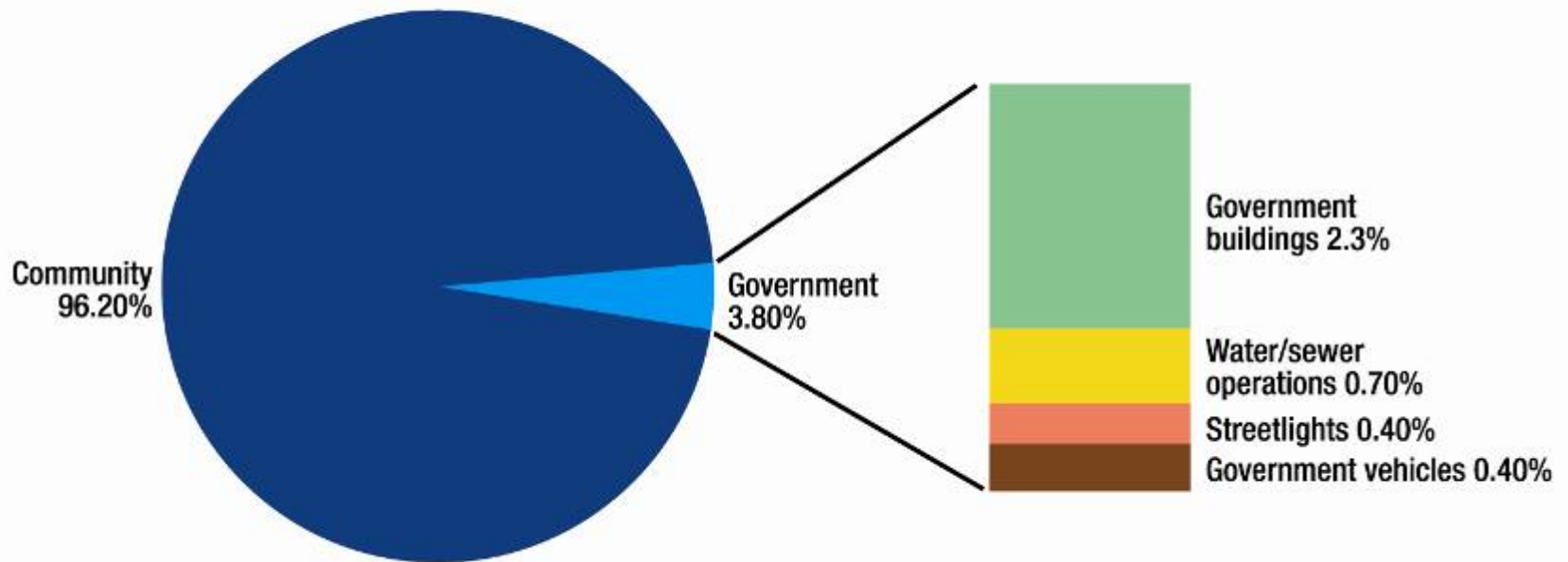
	<b>FY1996 Actual</b>	<b>FY 2001 Actual</b>	<b>FY 2006 Actual</b>	<b>FY 2009 Actual</b>	<b>% Growth</b>
<b>Metrorail Arlington Stations</b>	45,335,000	56,278,412	64,864,000	63,354,200	39.8%
<b>Metrobus Arlington Routes</b>	12,049,000	11,614,599	13,221,100	16,135,000	33.9%
<b>VRE – Crystal City</b>	567,000	586,069	992,600	950,000	67.5%
<b>Arlington Transit (ART)</b>	105,000	147,813	926,600	1,428,800	1361%
<b>Total Annual Ridership</b>	58,076,000	68,626,893	80,004,474	81,868,000	41.0%

<b>Street Segment</b>	<b>Street Type</b>	<b>1996</b>	<b>2001</b>	<b>2006</b>	<b>% Change 1996-2006</b>
Lee Hwy - Rosslyn	EW 6-lane arterial	37,770	33,632	32,428	<b>-14.1%</b>
Wash. Blvd – VA Sq.	EW 4-lane arterial	20,469	19,478	18,069	<b>-11.8%</b>
Clarendon Blvd.	EW 2-lane 1-way arterial	13,980	14,199	14,539	4%
Wilson Blvd. - Clarendon	EW 2-lane 1-way arterial	16,368	16,265	13,797	<b>-15.8%</b>
Arlington Blvd.	EW 6-lane arterial	55,865	63,272	60,223	7.8%
Glebe Road - Ballston	NS 6-lane arterial	35,230	39,409	35,900	1.2%
G. Mason Drive	NS 4-lane arterial	20,002	22,578	23,386	16.9%

## Arlington Initiative to Reduce Emissions (AIRE)

- January 1, 2007: Fresh AIRE program launched
- Set a Goal: 10% reduction in greenhouse gas emissions from County government operations from 2000 to 2012
- Set specific action targets
- Directed outreach to residents and businesses. Premise: the County is “leading by example”
- Funding: Established dedicated funding thru residential utility tax + EECBG federal funds

Total Arlington County Greenhouse Gas Emissions by Sector, 2000



Source: Morrill 2007.



## **Energy Efficiency and Conservation Block Grant Program (Stimulus Money)**

- **\$500,000: Solar photovoltaic installation on our Central Library**
- **\$685,100: Energy efficiency upgrades in County buildings: lighting, HVAC equipment and controls, recommissioning, and improvements to motors and drives.**
- **\$500,000: Change all remaining traffic signals to LEDs and replace conventional streetlights with LEDs.**
- **\$400,000: Training, education and outreach in the community.**

## Purpose

- *Recommend countywide goals for long-term, mid-term and short-term reduction of greenhouse gas (GHG) emissions as well as key strategies and actions to be taken by government, the private sector, the non-profit sector and individuals to meet those goals. Energy use is the predominant cause of GHG emissions and is therefore the primary focus of this effort.*
- *Produce a Community Energy Plan (CEP) that will be the foundation for an Energy Master Plan, which could ultimately become an element of Arlington County's Comprehensive Plan.*

***Adopted by Arlington County Board, January 1, 2010***



## Competitiveness

- Energy cost
- Employment
- Investment



## Security

- Supply security
- Supply quality
- Flexibility

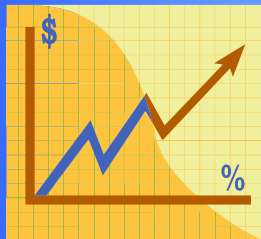
## Environment

- Greenhouse Gas Reduction

**Three Groups of Benefits**

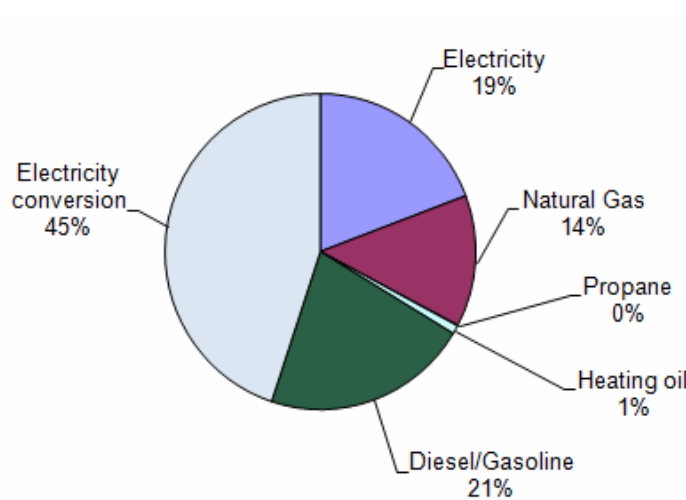
- **January 2010** - Project Kick-Off
  - Bi-monthly Task Force meetings
  - Monthly Technical Working Group mtgs
- **April/October 2010** - Community Energy Town Hall meetings
- **July 2010** - Energy modeling efforts
- **September 2010** - Preliminary recommendations presented
- **April 2011** – County Board considers Community Energy Plan
- **TBD** - Implementation Plan

- ***Businesses (8)***
- ***Citizens (4)***
- ***Educational Institutions (2)***
- ***Energy & Energy Technology Industry (4)***
- ***Local, State and Federal Governments (5)***
- ***Nonprofits/Associations (5)***
- ***Regional Transportation Authorities (2)***

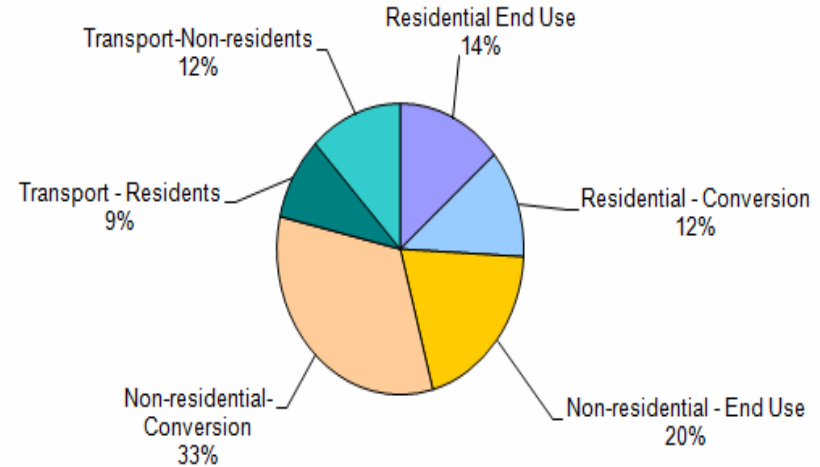


## 2007 Fuel Use

448,252,000 MMBtu<sub>e</sub> / 14,141,000 MWh<sub>e</sub>

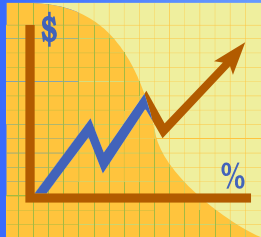


by type



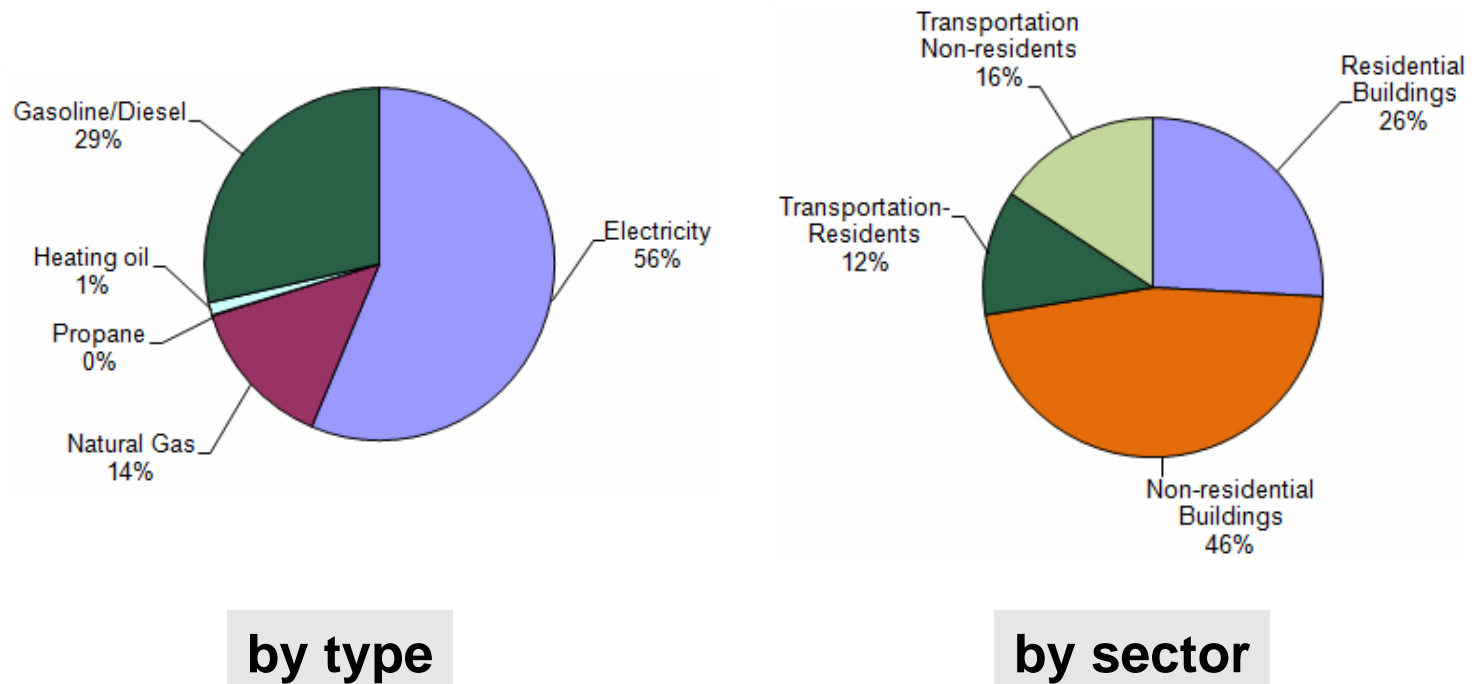
by sector

**236 MMBtu<sub>e</sub> / 69 MWh<sub>e</sub> for each Resident**



## 2007 Greenhouse Gas Emissions

2,730,000 metric tons / 6,020,000,000 lbs CO<sub>2e</sub>

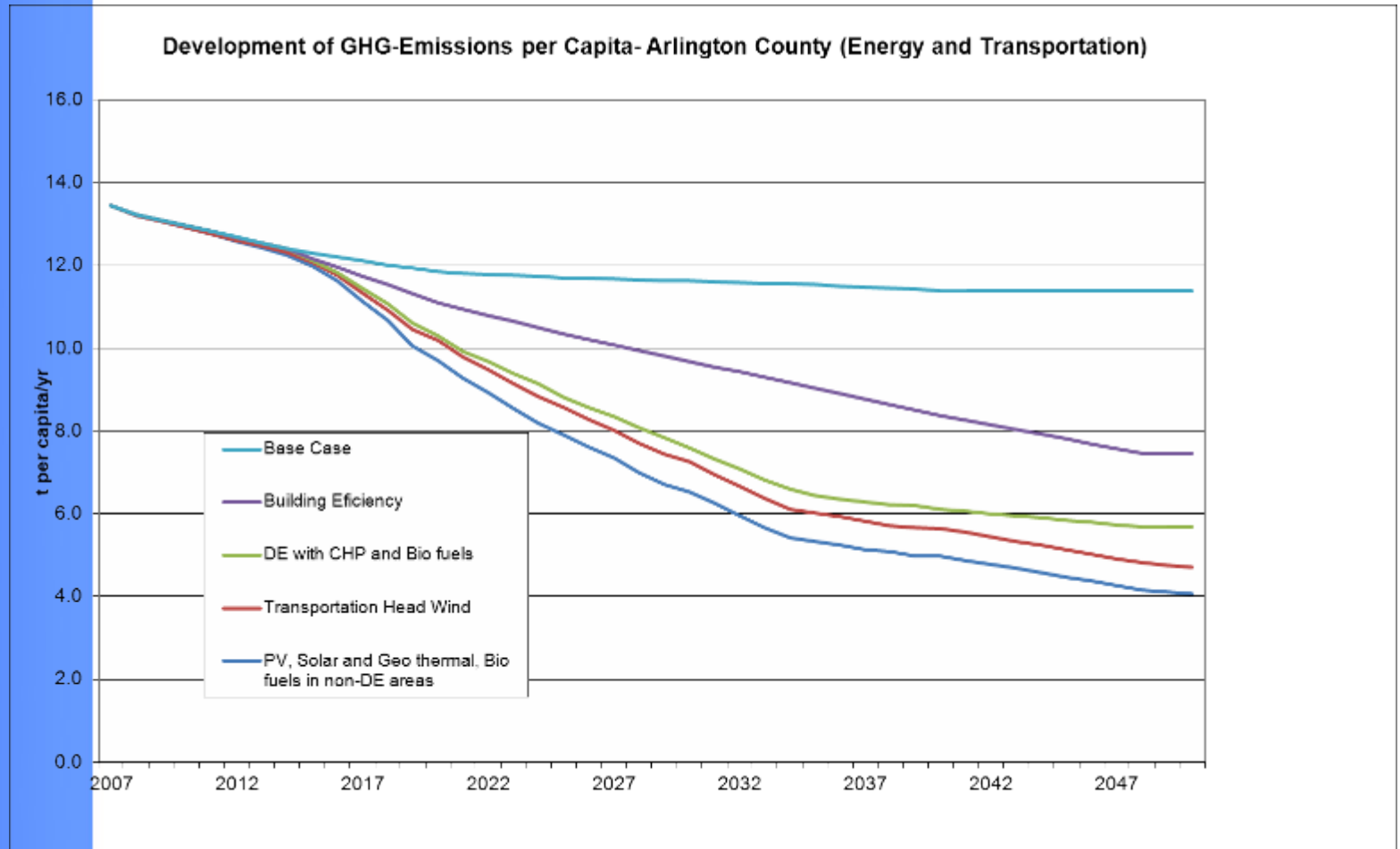


by type

by sector

**Now: 13.4 metric tons per capita**  
**Goal: 4.5 metric tons per capita**

- Energy efficiency – **If you don't need it don't use it**
  - Efficient buildings, vehicles
  - Urban design for transport efficiency
  - Local employment for commuting efficiency
- Heat Recovery – **If it's already there – use it**
  - Distributed combined heat and power
  - Use existing “waste” heat
  - Structure commercial sites to maximize “waste” heat use
- Renewable energy – **If it makes sense, go carbon free**
  - Renewable electricity – Photovoltaic, Wind, Run-of-river Hydro
  - Renewable heat - Solar thermal, Biomass, geothermal
  - Renewable heat and power – waste-to-energy, biomass
- Energy distribution – **Invest where it makes sense**
  - Flexible distribution – electricity, gas, heating, cooling, ....
  - Accepts multiple fuels and energy conversion technologies
  - Optimize local / regional investment choices



## Thank You !



***Project Updates & Information:  
[www.arlingtonva.us/energyplan](http://www.arlingtonva.us/energyplan)***