

Draft Goal to Fuel Discussion

Goal - Metric

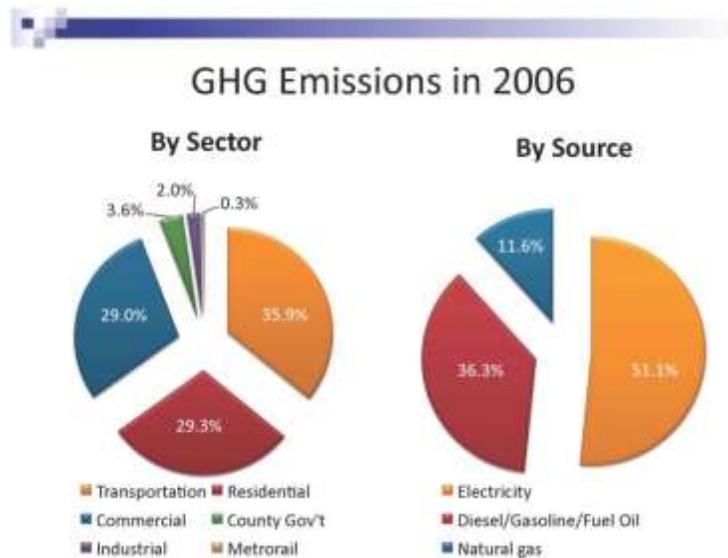
A per capita goal based on county population seems feasible. As the county has more jobs than people to support them and as residents of other localities travel to and through the county, it could be argued that population is not the best gauge. However:

- a) As we will see, transportation emissions should become irrelevant.
- b) Transient travel makes a regional “umbrella” desirable.

Proposed Goal

A goal of 3 tons/capita (of county population by 2040 is proposed. This goal:

- a) Is similar to Arlington’s
- b) Should be achievable.



The 2006 GHG emissions for Fairfax County were approximately 12 tons/capita (excluding federal activity).

Fairfax GHG Emissions

	Today 2006	Goal 2040
Total	12 tons/capita	3 tons/capita
Transportation	4.3	0
Other Sources	7.7	3

By 2040 there is a good reason to believe transportation will be carbon neutral.

Therefore to meet the goal, we need a 60% reduction in GHG from non-transportation sources. How can that be achieved?

How Can it be Achieved?

A series of interrelated “layers” applied as they become economically viable:

1. LEED EB: Encourage owner audits and provide incentives to bring old buildings up to LEED EB standard.
2. All new buildings to LEED standards.
3. A multitude of small energy savers.
4. Education and leadership to change attitudes.
5. Solar, particularly on commercial roofs to reduce peak demand.
6. Smart grid/advanced metering; LED lighting.
7. District Energy
8. Future fuel/energy/building technologies.

Notes

- Solar could well become cost competitive in the Virginia environment over the next 10-30 years, particularly given breakthroughs in storage.
- LED lighting needs refinement for universal application, but is effective for public areas today.
- Smart metering is necessary infrastructure to enable the effective application and integration of other new technologies.
- 10 years ago LEED certification was scoffed at. Today LEED certified buildings generate higher rents¹ and market forces drive LEED certification.
- Today District Energy is scoffed at locally. In 10 years, it could well be the norm providing it's economically viable based on cost, reliability, community acceptance and market forces.
- Providing District Energy is commercially attractive to utilities and developers, it should be supported by regulators.

¹ USGBC and major local developers.

Question

1. How can the county provide incentives which are revenue neutral or increase county revenues?
2. What's the best way to encourage LEED EB?
3. The 3-ton goal may well require cooperation between utility companies. If they talk together, they may violate anti-competition laws. So how do we trigger discussion?
4. Utilities promote energy saving services with utility bills. A steady drip, drip, drip of information is more effective than the occasional big bang. Could utilities so support the county program?
5. How can the county government become a catalyst, not an enforcer?