

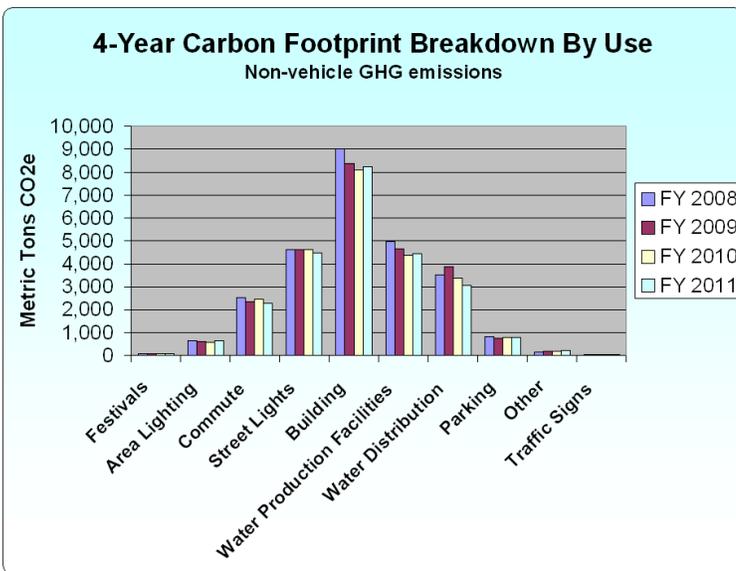
Asheville Sustainability Update

Municipal Operations — Non-vehicle Energy Through Fiscal Year 2011

City-Wide Highlights FY11

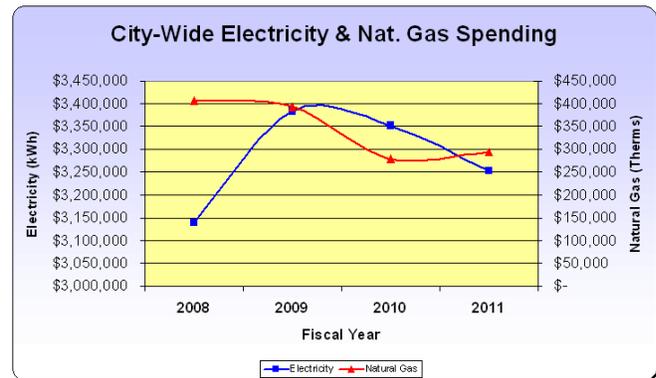
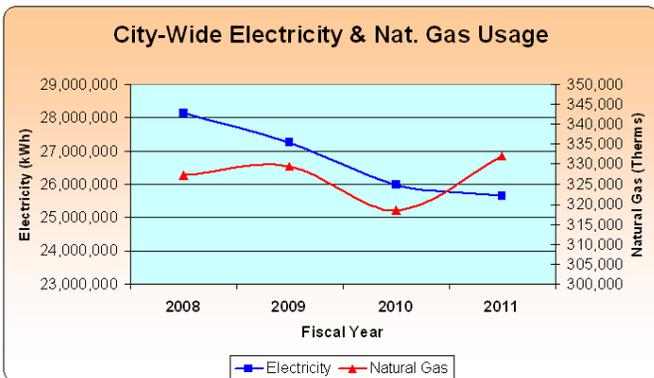
- City-hall lighting retrofit
- New, energy efficient IT servers
- Phase 1 of LED street light replacement
- Paperless payroll

City-Wide GHG Emissions



- The GHG impact of the natural gas increase outpaced the electricity decrease in many sectors
- Best performing sectors in FY11 included water distribution, street lights and employee commuting

City-Wide Electricity and Natural Gas Consumption



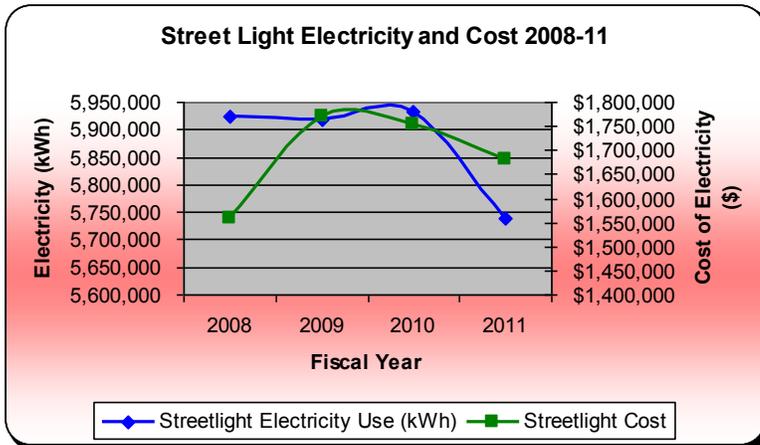
- Natural gas usage is extremely variable and weather dependent
- Watch out for natural gas—don't under-budget it just because of one mild winter
- Shape of electricity decline indicates low-hanging fruit—we'll need to continue even harder with sustainability efforts

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raise the bar. lower the carbon.

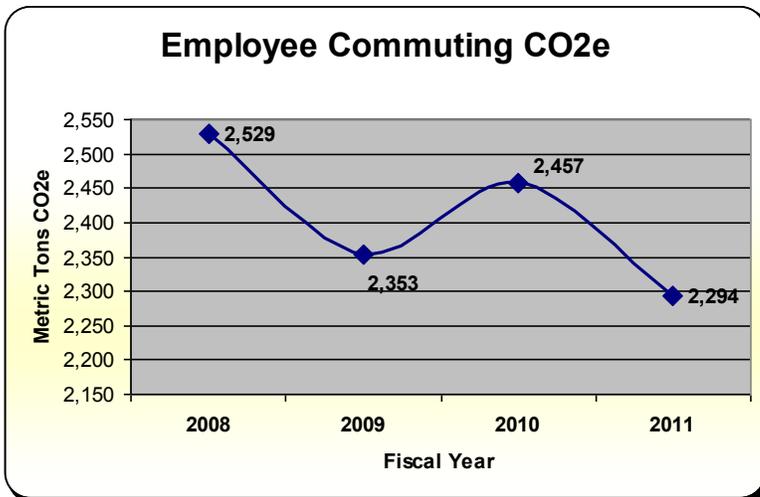
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Street Lighting



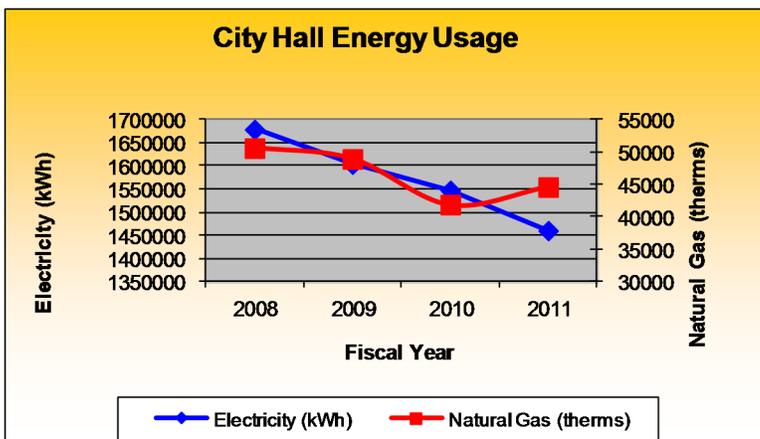
- Phase 1 of city-wide LED street lighting replacement completed in FY11
- Phase 1 represents 8% of total project
- Phase 2 (FY12) will put us at 39% complete
- Despite rising electricity rates, we are still trending down in electricity spending

Employee Commuting



- Percentage of employees on a 4 x 10 work schedule increased from 20.2% in FY10 to 25.3% in FY11
- A substantial degree of variability expected from survey data

City Hall



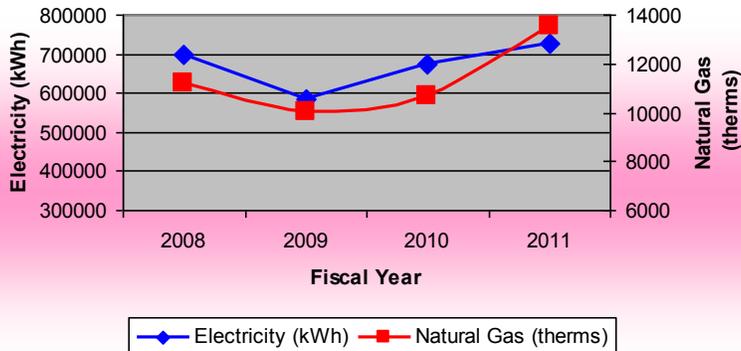
- Replaced all old fluorescent lighting with efficient T8 lamps and motion sensors
- Exchanged old, inefficient IT servers with newer and more energy efficient servers that require less space and less cooling

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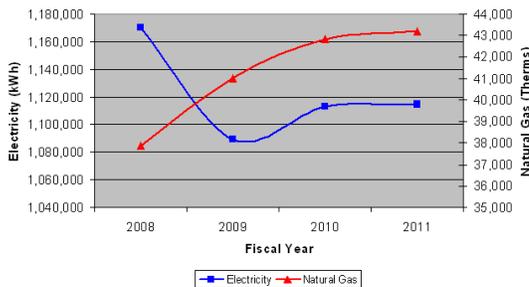
Public Works Bldg Energy Usage



- Increase in building occupancy inevitably led to higher energy consumption in FY11
- On a “per-employee” basis, efficiency is likely improving

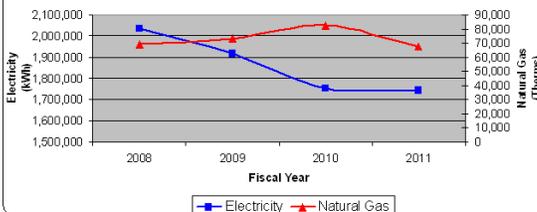
Four-Year Electricity and Natural Gas Departmental Trends

Fire Dept Electricity & Nat. Gas Usage



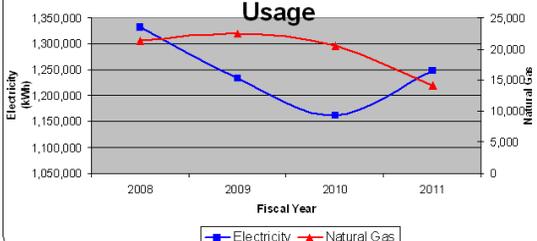
- Added one fire station during this timeframe
- 8% drop in electricity usage from FY08-09
- Increase in gas usage likely attributable to age of facilities and deferred maintenance

Civic Center Dept Electricity & Nat. Gas Usage



- New white roof helps lessen summer air-conditioning load

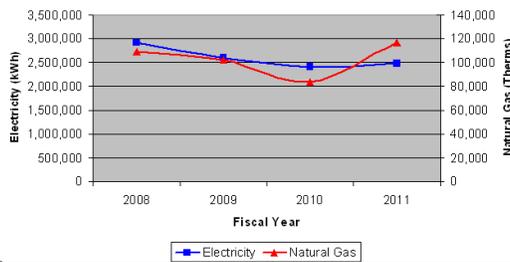
Police Dept Electricity & Nat. Gas Usage



- New substation came online in FY11

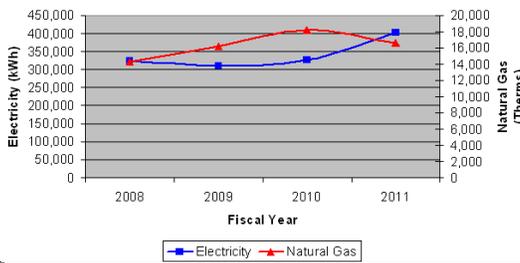
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PRCA Dept Electricity & Nat. Gas Usage



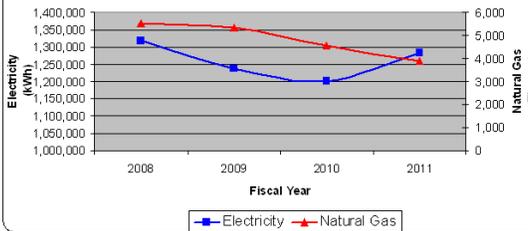
- Spike in natural gas due to cold winter in FY11

**Public Works Electr. & Nat. Gas Usage
(Not including PW Bldg or Street Lighting)**



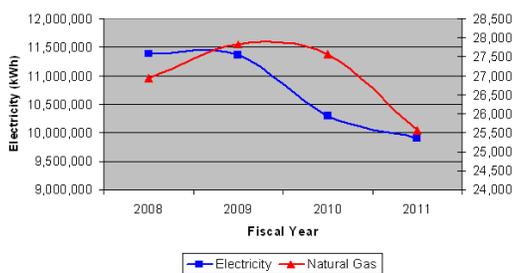
- Increase in electricity usage attributable to increases at fleet management building and CNG station pumps

Transportation Dept Electricity & Nat. Gas Usage



- Electricity increase in FY11 attributable to increased usage at parking offices and parking decks

Water Dept Electricity & Nat. Gas Usage



- New pumps installed at North Fork Reservoir saving 600,000 kWh per year

Note: These dual axis graphs show electricity and natural gas consumption over time individually, not relative to each other. In other words, because one line is higher than the other in a given year doesn't necessarily mean anything. Look at each line by itself for a trend, don't compare one to the other.

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