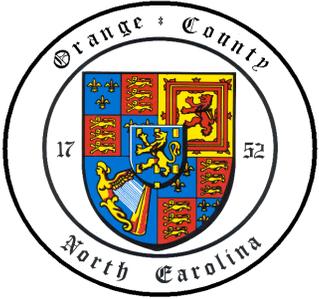


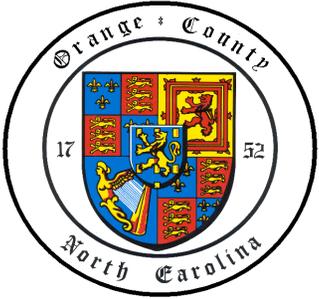
AMS Utility and Fuel Conservation Annual Report

Annual Update
Board of County Commissioners
October 16, 2012



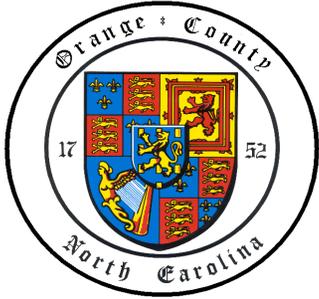
Department Objectives

- Monitoring utility use
- Continuously managing efficiency
- Communicating results
- FY 12-13 Initiatives; 5 year horizon



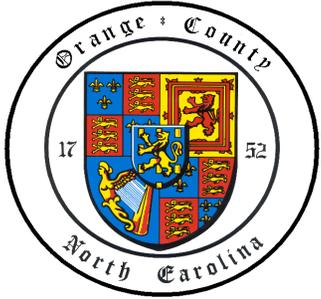
Commissioner Requests

- Reduction Goals Comparison
 - State vs. other local governments
- Utility and Fuel Policy Updates
 - “Instant On” Devices
 - Outside Lighting
- Minimize Waste Stream Impact/ Recycled Products
- Green Products
- Dollar Value of Savings – Avoided Costs



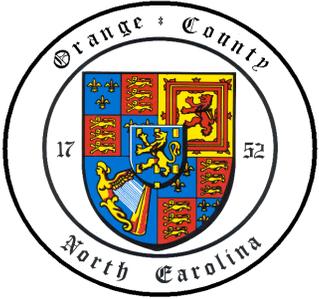
Goals of Local Communities

- Town of Chapel Hill
 - Carbon reduction program – goal 60% by 2050 with interval milestones
 - LEED-Based Energy Ordinance (adopted 2004)
 - Energy bank
 - Green Fleets policy
- Town of Carrboro
 - Carbon reduction program –
 - Energy Bank – revolving loan program



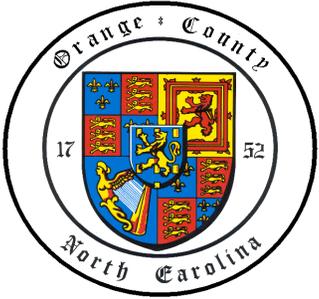
Goals of Local Communities- cont'd

- Durham City/County
 - Greenhouse Gas Emissions Reduction Plan – goal 50% by 2030
 - Idle reduction policies
 - County green building policy
 - City preferred purchasing policy
 - Fuel-efficient vehicles policy



Policy Updates

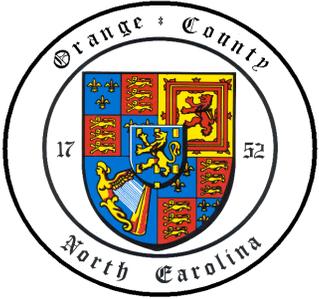
- Policies adopted by BOCC December 2005
- Changes needed due to reorganization
- Changes recommended for improved focus and outcomes



Avoided Energy Costs

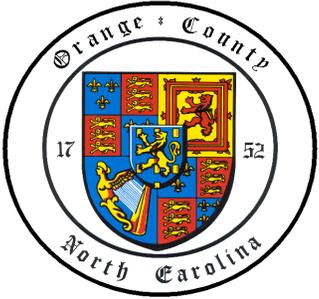
- Reduction in energy used per occupied sq. ft.
- Based on current unit costs for energy.
- Current unit costs higher than prior years due to rate increases

	FY 10	FY 11	FY 12
Cost Per Occupied Sq. FT.	\$1.55	\$1.46	\$1.49
Estimated Cost Avoided		\$51,712	\$34,148



AMS Reduction Goals

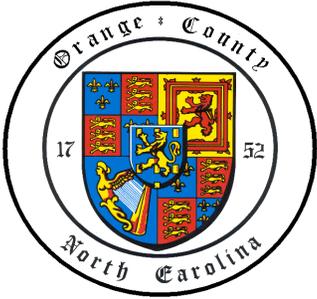
- In line with North Carolina conservation objectives
 - Energy use:
 - **20%** cumulative through FY15;
 - **additional 10%** cumulative through FY17
 - Water use:
 - **5%** cumulative through FY17
 - Fuel use:
 - **10%** cumulative through FY15;
 - **additional 5%** cumulative through FY17
- Success will be dependent on available funds



Energy Scorecard

Energy Use (MMBTU/ 1,000 Sq. FT of Occupied Space)				
	Goals		Actuals	
	MMBTU/ 1,000 Sq. Ft.	% Change from Baseline	MMBTU/ 1,000 Sq. Ft.	% Change from Baseline
FY 10 (Baseline)	96.2		96.2	
FY 11	92.4	4%	91.4	5.0%
FY 12	88.5	8%	83.5	13.2%
FY 13	84.7	12%		
FY 14	80.8	16%		
FY 15	77.0	20%		
FY 16	72.2	25%		
FY 17	67.3	30%		

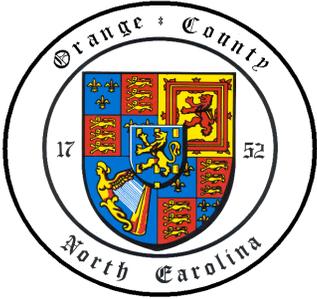
- Reduction attributable to geothermal installations



Fuel Scorecard

	Fuel Consumption (Total Gallons)				Fuel Efficiency (MPG)			
	Goals		Actuals		Goals		Actuals	
	Gallons	% Change From Baseline	Gallons	% Change From Baseline	MPG	% Change From Baseline	MPG	% Change From Baseline
FY 10 (Baseline)	240,813		240,813		12.82		12.82	
FY 11	235,997	2%	251,382	-4.4%	13.07	2%	12.83	0.1%
FY 12	231,180	4%	252,708	-4.9%	13.33	4%	12.14	-5.3%
FY 13	226,364	6%			13.59	6%		
FY 14	221,548	8%			13.84	8%		
FY 15	216,732	10%			14.10	10%		
FY 16	210,711	12%			14.42	12%		
FY 17	204,691	15%			14.74	15%		

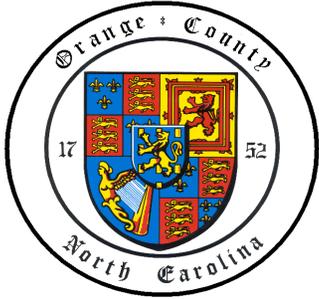
- Increased fuel use: attributed to increased law enforcement miles
- Slightly less efficient MPG: Aging fleet
- ***Solution: Active vehicle replacement program; higher fuel efficiency standards***



Water Scorecard

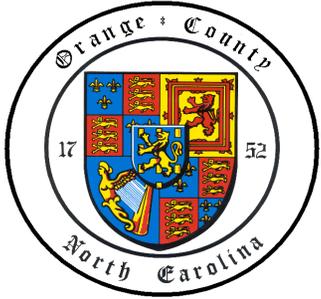
Water Consumption (Total Gallons)				
	Goals		Actuals	
	Gallons/ Sq. FT.	% Change From Baseline	Gallons/ Sq. FT.	% Change From Baseline
FY 10 (Baseline)	15.93		15.93	
FY 11	15.82	0.7%	13.03	18.2%
FY 12	15.71	1.4%	15.19	4.6%
FY 13	15.59	2.1%		
FY 14	15.48	2.9%		
FY 15	15.36	3.8%		
FY 16	15.25	4.3%		
FY 17	15.13	5.0%		

- Water Usage is highly variable



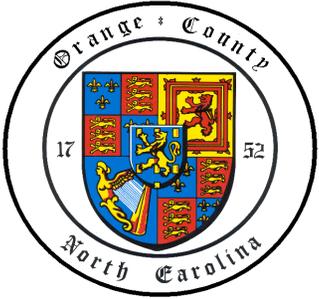
Current Year Initiatives – complete or planned

- Next phase of community geo-thermal system (Jail, Historic Courthouse, DA building, Court Street Annex)
 - Battle Courtroom added to Justice geo-thermal system
 - Digital control improvements at Seymour & Central Orange Senior Centers, Hillsborough Commons and Gateway building
 - Solar film evaluations
-



Current Year Initiatives

- Vending miser additions
- Continued lighting improvements
- Exterior door replacement at Whitted
- Improved roof insulation at select locations
- Reductions at Northern
- Older facilities removed from portfolio – 112, 118 N Churton Street
- Improvements at Sportsplex (geothermal study, pool HVAC improvements)



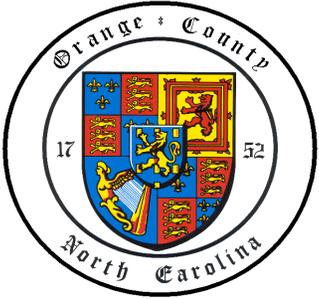
Current Year Initiatives

- “Know Your Building” Program
- Energy Bank projects
- Vehicle Replacement Program
- Electric Vehicle Charging Stations



Future (Five year) Initiatives

- Additional geothermal locations
 - Southern Campus
- Roof insulation upgrades with roof replacements
- Examination of solar technologies
- Examination of alternative vehicle fuel initiatives
- Monitor other industry options and trends



For More Information:

Orange County Utility and Fuel Use and Conservation Initiatives -Inaugural Report

located at:

http://orangecountync.gov/AssetMgmt/documents/AttachmentA-Conservation_Report-final.pdf