



## Energy Efficiency

### Objective:

Minimize King County's operational environmental footprint

### Strategy:

Measure energy usage in county facilities and use this information to guide conservation investments

### Why is this strategy important?

King County is committed to a culture of continuous improvement; efforts to improve efficiency and save money must be carried out in all areas of county operations. Energy audits and regular review of energy use provide critical data that can inform decisions and direct actions to change operations, procure supplies and equipment, and retrofit facilities to save energy and money.

### How is our performance?

In 2010, King County revised its Energy Plan. The plan establishes energy conservation and renewable energy goals for King County government operations, and sets objectives to help meet the goals. The County has three near-term energy performance targets, compared to 2007 baseline levels:

- Achieve a 10 percent normalized net reduction in energy use in county buildings and facilities by 2012
- Achieve a 10 percent normalized net reduction in energy use by county vehicles by 2015
- Produce, use or procure renewable energy equal to 50 percent of total county energy requirements by 2012

**Energy Use in County Buildings:** King County achieved an 8.1 percent normalized energy use reduction between 2007 and 2012, just short of the target of a 10 percent reduction. Despite falling short of this goal, many County divisions demonstrated notable energy reductions. The Transit Division has been capturing steady reductions over time, reflecting their on-going capital investments in more efficient lighting and mechanical systems. The County continues its investments to reduce energy use, and is focused on continuing a push towards meeting the 10 percent reduction target in 2013 and continuing progress toward the 15 percent energy use reduction target by 2015.

**Energy Use by County Vehicles:** Net vehicle fleet energy consumption increased by one percent between 2007 and 2012. Metro Transit accounted for most of this increase with fuel usage up by five percent as transit service hours increased, while other divisions and departments reduced their fuel usage. Total fuel use by the County's general fleet declined 9 percent between 2007 and 2012 due to the replacement of older cars and trucks with more fuel efficient vehicles, including hybrids; rightsizing

vehicles and engines; reducing the overall size of the fleet; retention and reassignment of some of the most fuel efficient vehicles, and; expansion of the Daily Rental (Motor Pool) Dispatch system and enabling car-pooling and trip planning on the computerized reservation system. In addition, fuel consumption by the Solid Waste Fleet declined approximately 21 percent largely due to decreased waste hauling because of the economic downturn, efforts to reduce waste and fewer hauling trips resulting from new garbage compactors at County transfer stations.

**Produce Renewable Energy:** By the end of 2012, the County was exceeding its 50 percent renewable energy goal, with an estimated 53 percent and 2,154,779 MMbtu of the County's energy needs being produced, used or procured through renewable sources. Key contributors to the County's success included the South Treatment Plant biogas scrubbing system and the Cedar Hills Landfill BioEnergy Washington Plant (BEW) overcoming challenges and returning to full operation.

## **Related Links**

King County has mapped a comprehensive strategy for achieving the above goals through its Energy Plan, major elements of which include:

- Staffing an Energy Task Force representing all major energy-using departments and divisions in the county to implement the Plan
- Broad adoption of utility accounting software to benchmark facilities and track progress towards energy goals; reporting results to the Executive
- Energy policy definition and implementation to improve energy efficiency, conserve energy aggressively, and expand use of renewable energy sources

## **Related Links**

**[King County Energy Plan](#)**

**[King County Landfill Gas to Energy Project](#)**

**[King County Wastewater Resource Recovery](#)**

**[Wastewater Resource Reuse Performance Report](#)**

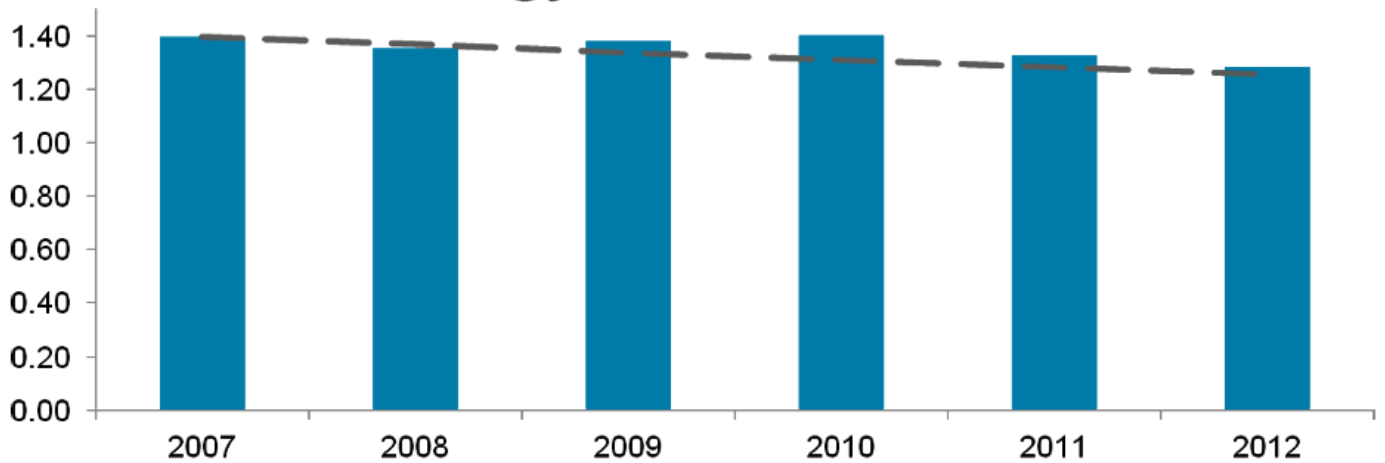
## **Technical Notes**

**Energy Use by County Vehicles:** Normalized vehicle energy use for all other county fleets has been reduced by 1.8 percent from 2007 levels. Metro Transit normalizes energy usage by three means: vehicle miles, passenger miles, and boardings which are consistent with national transit standards. 2011 normalized vehicle energy use for the County ranges between 0.6% below and 6.2% above 2007 levels, depending on the DOT normalization method. The interim target for 2011 is 5% below baseline.

## Charts and Maps

King County Progress on Energy Plan Implementation			
	Performance	2011 Results	Target
Energy use at county facilities	Not meeting target	5.2% reduction from 2007	10% normalized net reduction in energy use countywide by 2012
Energy use by county vehicles	Not meeting target	.6% reduction to 6.2% addition from 2007	10% normalized net reduction in energy use by county vehicles by 2015
Percent of County's energy that is renewable energy (either procured or produced)	Not meeting target	23%	Produce, use or procure 50% of King County non-transit energy from renewable sources by 2012

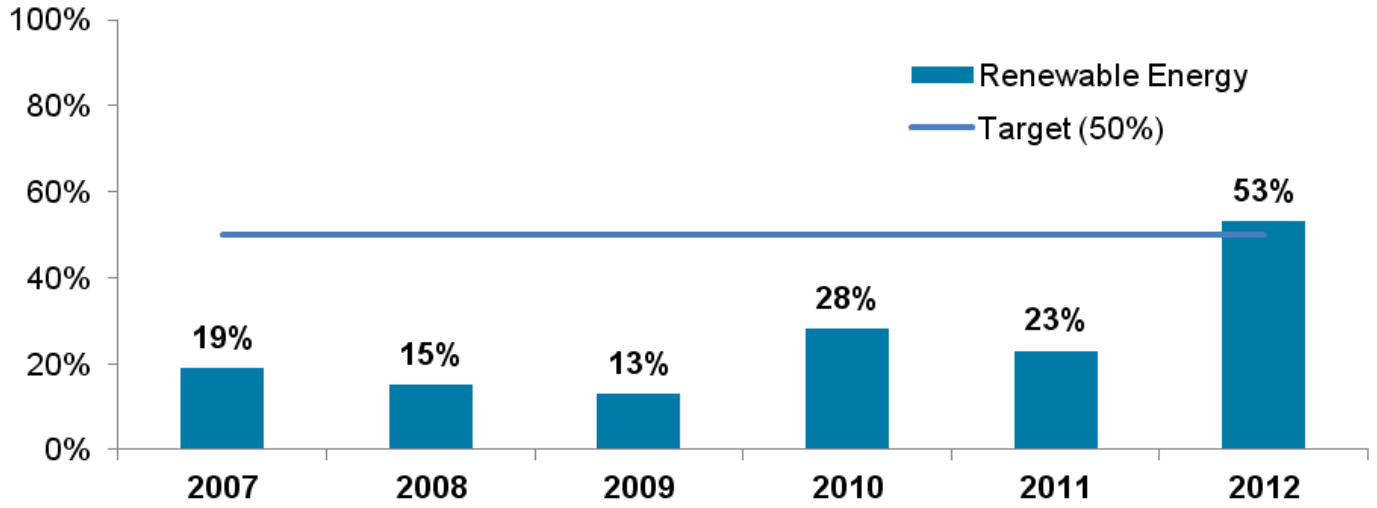
## King County Government Normalized Energy Use in Facilities



Data Source: King County Environmental Sustainability Report

— — Target

# King County Renewable Energy Generation and Use



Data Source: King County Environmental Sustainability Report, energy reported at year-end.