



To: Board of Commissioners
From: Jenna Higgins, Resource Conservation Specialist
Date: August 13, 2014
Re: 2011-2016 Resource Management Plan: Dashboard Report

Background:

2013 marks the third year of KCHA's Resource Management Plan (RMP), a six-year strategy to reduce Authority's impact on the natural environment and reduce or avoid utility costs. Adopted by the Board of Commissioners in August of 2011, the RMP uses consumption data from 2010 to establish a baseline and measures annual progress in the following six areas:

- Common area energy use at KCHA-managed sites (KCHA-paid utilities)
- Portfolio-wide energy use (KCHA and resident-paid utilities)
- Solar energy production capacity
- Avoided utility costs at KCHA-managed sites (water and all energy)
- Waste diversion at KCHA-managed sites (recycling rate)
- Water use at KCHA-managed sites

Summary of Resource Conservation Efforts in 2013:

Water conservation and waste diversion targets were met or exceeded at KCHA-managed sites. Water use at KCHA-managed sites slightly decreased from the previous year, keeping on track with projections for 2013. In 2013, the waste diversion target was exceeded and is one of the highlights of the year, as the number of properties with yard waste recycling increased and door-to-door resident recycling education was conducted at five properties. Through 2013, the resource conservation program has reduced garbage costs by \$95,000 annually as a result of improving or adding recycling at housing sites.

Four areas were below 2013 targets, but still made sizeable efforts towards goals: common area energy savings, portfolio-wide energy use, solar production capacity, and avoided utility costs.

Common area energy savings is at 87% of the 2013 target. Building commissioning - the process of verifying that all building systems are operating as designed - is currently underway at the Kent Family Center, Birch Creek Recreation Center, and 600 Andover building and is an important step in achieving the ultimate goal. Energy audits and the implementation of low-cost conservation measures at other community buildings and high energy consuming sites will play an important role in meeting this target.

The portfolio-wide energy savings goal to reduce energy use 5% by the end of 2016 was set before any data was obtained. Complete whole-building data is now being received, and the 2016 goal may be amended as the data are compared to national averages.

In 2014 we expect to get closer to our solar energy production goal as the 33kW solar array at the Village at Overlake comes online. The addition of this solar array will put KCHA at 78% of its goal for solar production capacity next year.

Avoided utility costs are lagging targets, partially due to high water use at Birch Creek and Green River Homes.

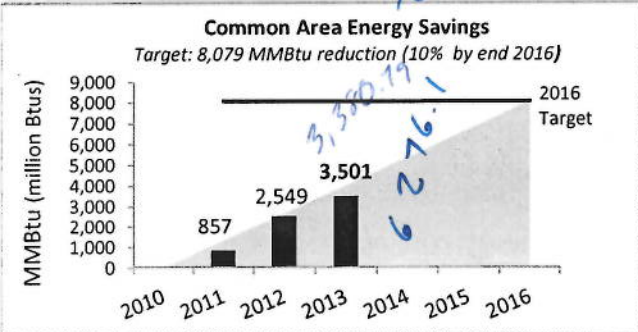
The Resource Management Plan includes an array of other initiatives besides what is reported on in the dashboard. In addition to the results detailed above, KCHA's 2013 resource conservation efforts were varied and exciting:

- We are now analyzing whole-building energy data for KCHA properties. We have obtained several years' worth of data from both Puget Sound Energy and Seattle City Light, allowing us to benchmark our properties against each other, and against multifamily properties in Seattle. In 2013, 70% of KCHA multifamily properties used more energy than the average multifamily property in Seattle (Seattle average = 32 kBtus/ft²). It is uncertain how much of this difference is attributable to differences in building typologies or in the methodologies used to develop the benchmarks. The current KCHA average is 39 kBtus/ft². High-consuming sites have been identified, and planning will take place later this year to identify possible measures to reduce energy use at these properties, including the possibility of using Capital and Weatherization funds.
- KCHA has 39 properties certified by the King County EnviroStars program, which recognizes organizations for outstanding management of hazardous waste. We seek to certify 10 properties each year, with all Public Housing portfolio office properties, and all Asset Managed properties, to be certified by the end of 2016.
- The 700 Andover building uses 28 kBtu/ft², one of the lowest energy-consuming office buildings in our region. This building is now listed on the federal register of EnergyStar buildings, with an outstanding EnergyStar

KCHA Resource Management Plan 2014 Dashboard Report

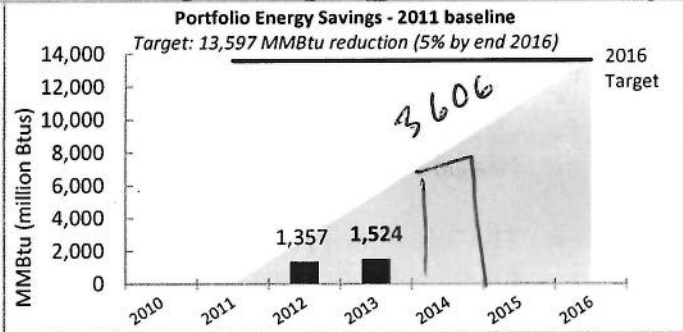
Common Area Energy Savings

*Baseline 2010
AMA PH*



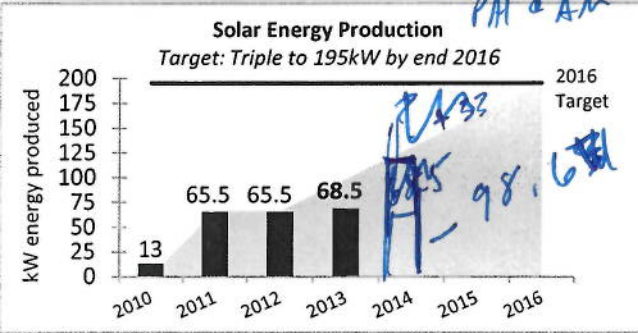
Portfolio Energy Savings

PSE sites only



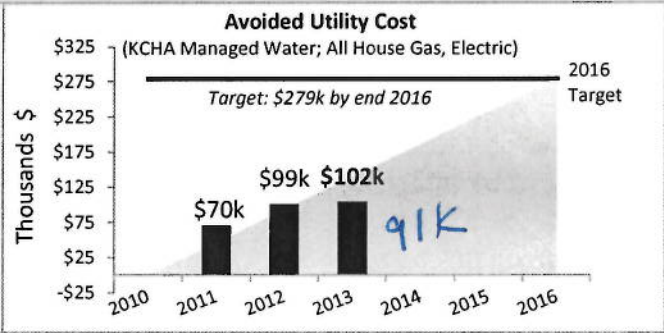
Solar Energy Production

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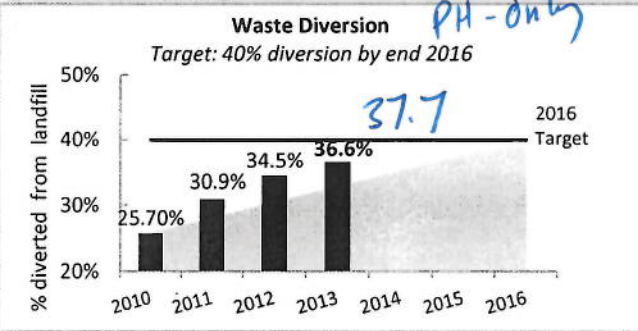
Avoided Utility Costs

Baseline 2010



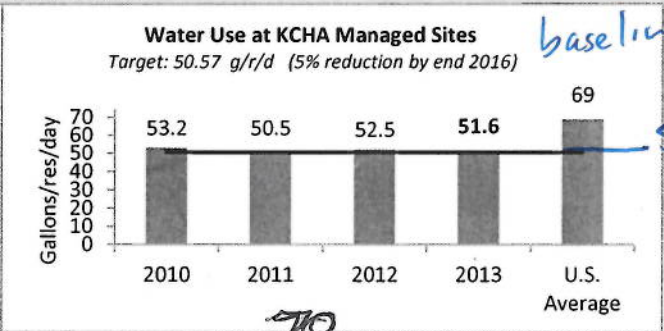
Waste & Recycling

PH - only



Water Use

baseline 2010



Summary	
Resource Management Plan Target Area	% of 2013 Projection Achieved
Common Area Energy	87%
Portfolio Energy [1]	28%
Solar Energy Production [2]	70%
Avoided Costs (KCHA-paid) [3]	74%
Waste Diversion	112%
KCHA Managed Water Use	100%

[1] Due to technical difficulties with PSE, 2011 data has been used as the baseline for this metric. 2010 data will be substituted when it is available.

[2] An additional 33kW is coming online at Village at Overlake in 2014.

[3] Excludes Public Housing sewer, Asset Management water/sewer



score of 98/100. To help ensure we maintain this score, we completed full commissioning of the building systems in January, and found it to be operating as intended.

- An electric car charging station was installed at the 700 building, the only electric vehicle charging station in Tukwila. It had 64 charges in 2013 (installed in June), with rapidly increasing usage.
- The Weatherization department completed energy conservation measures in 935 single-family, multi-family and mobile home units in 2013, reducing energy costs and improving indoor air quality for low-income residents. Weatherization funds also improved several KCHA properties in 2013, including Eastside Terrace, Campus Court, Shoreham, Victorian Woods, Cascadian Apartments, Ballinger Homes, Cedarwood, Valli Kee, Patricia Harris Manor, and Bellevue Manor. Total expenditures on KCHA properties were over 1.5 million dollars.
- 26 KCHA properties compost yard waste, and 7 properties offer food waste composting to residents and staff.