Commercial High-Efficiency Toilet Installation Program

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Santa Clara Valley Water District

- Northern California – Bay Area – “Silicon Valley”
- Wholesale Water Agency
  - 13 major water retailers
- Serves 1.7 million residents
- Water Resources Management Agency for Santa Clara County
In 2003, the District received grant funding for an “innovative high-efficiency commercial plumbing installation program” from the State of California Department of Water Resources.
Commercial High-Efficiency Toilet Installation Program

Description of HETs

- HETs are toilets that use at least 20% less water to flush than ULFTs (1.28 gpf or less)

- SCVWD decided to install only 1.0 gallon per flush HETs (use ~38% less than ULFTs)

- Why pressure-assisted flush? Work well in commercial settings. Loud but flush well
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Description of HETs

• Model currently being installed is the Vortens “Tornado”

• “Maximum Performance” test (MaP) by Veritec Consulting, Inc.

• Scored 700

Example of pressure-assisted Flushing mechanism.
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Goal for Program

• Installation goal = 1,200 HETs installed in Santa Clara County over three years.

• One year into the program and over 1,000 have been installed.
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Program Details

- Only replaced non-ULFTs (replaced toilets must flush 3.5 gpf or higher).

- $269 per installation. Includes HET (Vortens “Tornado”), marketing and administration of program, toll-free number, installation of new HET, recycling of old toilet, follow-up as needed, record keeping, warranty.
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Where to put HETs

• Targeted settings with highest savings potential. Source: California Urban Water Conservation Council (CUWCC) CII ULFT Study from 1997.

• Wholesale, Food Stores, Restaurants, Retail, Automotive, Multiple Use. Other sectors approved as needed (health clubs, etc.).
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Marketing

- Since start of program, over 1,000 HETs installed
- These marketing methods worked well:
  - Sent flyers targets sectors.
  - Door-to-Door marketing. Good with older strip malls. Once one store is signed up, others likely to follow.
  - Worked with commercial property management companies who gave permission to retrofit numerous strip malls.
  - Utilized information gathered through Pre-Rinse Sprayer Installation Program (Rinse & Save).
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Savings

- Each old toilet’s flush volume is measured before it is removed.
- The average flush volume for toilets replaced in FY 04/05 was 4.29 gallons (3.5 gpf was minimum).
Example: Ann’s Universal Cuts in Sunnyvale, CA

Toilets changed out on 11/15/05
Example: Ann’s Universal Cuts in Sunnyvale, CA

Before & After

Before: 7.0 gpf

After: 1.0 gpf
In FY 04/05, ~1,000 HETs were installed in nine different CII sectors.

Savings (for all HETs) = 36,730 gallons per day

Savings determined by taking CII ULFT savings from CUWCC Saving Study (1997) and adding 20% to each sector.
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Customer Satisfaction

• Follow up inspections – in-person and via phone.

• Inspectors look at installation and also gauge customer satisfaction.

• Enormous amount of positive feedback.

“The program was great. There was no hassle, it was quick and easy.” Speed Merchant, San Jose
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Lessons Learned

• Direct installation programs worked best.
• Target sectors with highest savings potential.
• Follow up inspections – very important. Go back or call within a month of installation.
• Marketing – try door-to-door, especially with older strip malls.
• Give HETs a try, instead of ULFTs. Pressure-assisted flushing makes them work well in commercial settings.
Questions?

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