

Appliance Recycling Program

1. Projected Program Budget	\$	39,893,411
2. Projected Program Impacts		
MWh		177,323
MW (Summer Peak)		30.82
3. Program Cost Effectiveness		
TRC		6.07
PAC		2.52

4. Program Descriptors

Market Sector: Residential/Nonresidential
Program Classification: Statewide
Program Status: Revised Existing

5. Program Statement

The Appliance Recycling Program (ARP) will produce cost-effective long-term coincident peak demand reduction and long-term annual energy savings in residential and non-residential market sectors by removing operable, inefficient refrigerators, freezers and room air conditioners from the power grid in an environmentally safe manner.

6. Program Rationale

Given the continued market saturation for working refrigerators and freezers, the program offers significant opportunities for cost-effective long-term coincident peak demand reduction and long-term annual energy savings¹. The success of the program will be attributed to the accelerated retirement and removal from the potential secondary markets of the older and least efficient refrigerators and freezers.

ARP continues to explore opportunities to increase energy savings by adding volume from existing measures or adding new measures to the existing portfolio.

In the 2006-08 program period, ARP will add room air conditioners (A/Cs) based on the

What's New for 2006-08?

- Innovation
 - Include room air conditioners
 - Expand into nonresidential market
- Integration
 - Link with residential and multifamily rebates
 - Promote Demand Response programs
- Other Program Improvements
 - Create turn-in and pick-up events, collaborating with retailers and local partnerships/governments

¹ Based on the "California Statewide Residential Appliance Saturation Study" by KEMA-Xenergy June 2004 Study ID CEC0022.01;400-04-009, there are 4,005,582 refrigerators, of which 949,225 (or 24%) are over 10 years old, 611,134 stand alone freezers, of which 202,987 (or 33%) are over 10 years old, and 875,921 room air conditioners, of which 219,871 (or 25%) are over 13 years old in the SCE service territory.

market saturation and potential for additional cost-effective long-term coincident peak demand reduction and long-term annual energy savings. This new measure will follow the best practice model established through the New York State Energy Research and Development Authority's (NYSERDA) Keep Cool Bounty Program². The addition of room A/Cs will complement the existing ARP portfolio and supplement the ENERGY STAR® qualified room A/C rebate offered through SCE's Residential Energy Efficiency Incentive Program (REEIP).

The Program Advisory Group (PAG) recommended that ARP include nonresidential customers since a number of office complexes and industrial buildings have standard, residential size refrigerators and freezers. In response, ARP will offer the program to nonresidential customers including office complexes, industrial customers, schools, municipalities, etc.)

PAG recommended that ARP consider adding clothes washers to the existing portfolio for 2006-08. Although an engineering analysis did identify some energy saving opportunities resulting from the combination of avoided water pumping and mechanical washer efficiencies, it did not prove to be a cost effective measure due to the prohibitive recycling charges to remove the oils/grease from the clothes washers in an environmentally safe manner as mandated by the State of California.

7. Program Outcomes

The program will emphasize the energy-efficiency benefits associated with the disposal of spare refrigerators and freezers and will also encourage the accelerated retirement of older and least efficient primary refrigerators and freezers, and room air conditioners with more energy efficient (e.g., ENERGY STAR®) units. ARP will disseminate program information and collaborate with other energy efficiency programs (REEIP, Home Energy Efficiency Survey) to educate customers on taking these actions

8. Program Strategy

The program will deploy the following strategies to achieve program goals and objectives:

- Develop program materials/messages (brochures, ads) that clearly emphasize energy savings (through the use of charts) associated with disposal or early retirement of older, inefficient appliances, particularly the retirement of spare units. Collaborate with other energy efficiency programs (e.g., Home Energy Efficiency Survey Program) to distribute these collateral materials
- Encourage customers to turn in their old, working inefficient primary refrigerator for a new ENERGY STAR® model by promoting a combined incentive/rebate offering with SCE's REEIP ENERGY STAR® refrigerator rebate. These promotions would be conducted through POS materials located at retail appliance stores and other cross promotional marketing activities.

² Based on the "Best Practices Benchmarking for Energy Efficiency Programs" study managed by Pacific Gas and Electric Company under the auspices of the California Public Utility Commission in association with Southern California Edison, the California Energy Commission, San Diego Gas and Electric, and Southern California Gas Company.

- Encourage customers to turn in their old, working inefficient room air conditioner for a new ENERGY STAR® model by promoting a combined incentive/rebate offering with SCE’s REEIP ENERGY STAR® room air conditioner rebate.
 - These promotions will be held in conjunction with SCE-sponsored “Turn In Events” held at various retail establishments or co-sponsored with

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other community/company/city sponsored events utilizing local partnerships/government initiatives. SCE will promote combined incentives for refrigerator and room air conditioners at turn-in events and pick-up day events.

- Utilize community-based agencies to promote ARP in conjunction with low income program activities.
- Collaborate with local partnerships and local governments to offer “Refrigerator and Freezer Pick-Up Events”. These events would be scheduled in advance and would cover specific geographic areas to promote the turn in of spare or replacement refrigerators and freezers.
- In collaboration with the Multifamily Energy Efficiency Rebate Program (MFEER), promote the early retirement of older, inefficient refrigerators, freezers and room A/Cs. Encourage property owners/managers to replace the older, inefficient appliances by offering bundled incentives/rebates for the turn in of the older inefficient units and the purchase of new ENERGY STAR® units. This strategy was developed through input received from the PAG.
- Offer a higher customer incentive for freezers (vs. refrigerators) to increase total program energy savings and demand reduction. In line with market penetration data³, offering customers a higher incentive for freezers provides an opportunity to increase the number of freezers picked up (as a % of total units), thereby increasing energy savings and peak demand reduction.
- PAG recommended an incentive (e.g. spiff) to appliance salespeople to encourage customers to participate in ARP when they purchase new appliances. This creates many barriers as it conflicts with existing contractual relationships between retailers and their pick up/delivery service contractors and poses significant program logistic challenges in coordinating the pick up of old units with the delivery of new units. SCE will continue to collaborate with retailers to encourage customers to turn in their old units through ARP. To expand on this

Collaborate with local partnerships and local governments to offer “Refrigerator and Freezer Pick-Up Events”.

opportunity, SCE plans to cross-promote SCE's ENERGY STAR® refrigerator rebate program with ARP at appliance stores (e.g. POS) throughout the SCE service territory.

9. Program Objectives

A prime objective of the program is to produce cost-effective long-term coincident peak demand reduction and long-term annual energy savings by removing from the power grid operable, inefficient primary and second refrigerators and freezers in an environmentally safe manner.

In addition to the quantifiable unit goals listed in section 13.1 below, ARP plans to implement the following:

- Educate and encourage residential and nonresidential customers to dispose of spare refrigerators or freezers or replace old, inefficient working units by disseminating program information through various channels (i.e., radio, bill inserts and/or bill messages, direct mail). Details on the channels deployed are listed below under marketing activities.
- Hold multiple "Pick-Up Day Events" for the turn in and disposal of spare and inefficient primary refrigerators and freezers through collaboration with local partnerships/government efforts.
- Hold multiple "Turn-In Events" for the early retirement of room A/Cs through collaboration with retail appliance stores, local partnerships/government efforts.
- In collaboration with SCE's MFEER, encourage major property managers/owners to retire old inefficient refrigerators, freezers and/or room A/Cs and replace appliances with new ENERGY STAR® units at multi-family complexes.
- To increase customer participation in both energy efficiency and demand response programs, promote SCE's Summer Discount Plan, where applicable.

10. Program Implementation

ARP offers customers on a first-come, first-served basis free pickup of working (cooling) refrigerators or freezers and a cash incentive. SCE customers can schedule a pickup

In response to recommendations received during public workshops, SCE will lower the size eligibility down to 10 cubic feet. This will allow customers with "apartment-sized" units, such as seniors, lower income households and young households, to take advantages of ARP.

appointment of their working, standard size (10-27 cu. ft.) refrigerator or freezer by calling a toll-free number or going to the designated SCE web site. To maximize program energy savings opportunities, SCE will continue accepting all working units as approved by the Commission in SCE's 2005 Summer Initiative Program. In response to recommendations received during public workshops, SCE will lower the size eligibility

down to 10 cubic feet. This will allow customers with “apartment-sized” units, such as seniors, lower income households and young households, to take advantages of ARP.

SCE will seek to accelerate the disposal of spare refrigerators or freezers by providing a convenient means of properly and permanently retiring the units. In addition, through the REEIP and MFEER, SCE will seek to increase the market share of ENERGY STAR® refrigerators by facilitating consumer purchase and use of energy efficient units while simultaneously providing a convenient means of properly and permanently retiring the replaced primary inefficient refrigerators.

Customers can turn-in older, working room air conditioners for new ENERGY STAR® qualified models at “Room A/C Turn-In Events” that SCE will sponsor or co-sponsor throughout the SCE territory. SCE seeks to accelerate the increase in the market share of ENERGY STAR® room air conditioners by facilitating consumer purchase and use of energy efficient units while simultaneously providing a convenient means of properly and permanently retiring the replaced inefficient room air conditioners. Proposed venues for these turn-ins include appliance stores, home improvement centers, and community-based events.

Customers will receive a \$35 incentive for each refrigerator and \$50 for each freezer. SCE will continue this freezer incentive (increased from \$35) as approved by the CPUC in SCE’s 2005 Summer Initiative Program. This incentive seeks to accelerate freezer turn-ins as over 202,987 freezers are over 10 years old in SCE’s service area (see footnote ¹). Offering customers a higher incentive for freezers provides an opportunity to increase the number of freezers picked up (as a % of total units), thereby increasing energy savings and peak demand reduction.

Intended interactions with other SCE energy efficiency programs include:

- Collaborative efforts with SCE’s REEIP offering customers a combined \$85 incentive/rebate to turn in their old, working inefficient refrigerator when purchasing a new ENERGY STAR® refrigerator (\$35 for turn in of old and \$50 for purchase of new)
- Collaborative efforts with REEIP will provide customers a combined \$75 incentive/rebate to turn in their old, working inefficient room air conditioner when purchasing a new ENERGY STAR® room air conditioner (\$25 for turn in of old and \$50 for purchase of new) at “Room A/C Turn-In Events” that SCE will sponsor or co-sponsor.
- Collaborative efforts with SCE’s MFEER will encourage multifamily property owners to early retire older, inefficient room air conditioners and refrigerators with ENERGY STAR® qualified models by promoting both recycling and purchase incentives to this market sector.

SCE will explore synergistic opportunities to further promote ARP through other SCE energy efficiency programs (e.g., partnerships, local governments and the demand response Summer Discount Plan). As an example, a recent KABC-TV consumer report focused on SCE’s residential energy efficiency and demand response programs. This

segment included an interview with an SCE residential customer who said, “I do other things with Edison to save energy (besides participating in the Summer Discount Plan). As a matter of fact, I’m having my refrigerator picked up later this week”. As further support, recent SCE market research data shows that customers participating in the Summer Discount Plan have a proclivity to participate in ARP.

11. Customer Description

Residential and nonresidential customers are eligible for the program. This program will target these owners to turn in eligible spare refrigerators and freezers. To maximize demand reduction and energy saving opportunities, ARP will also focus on early retirement of primary, inefficient refrigerators and freezers and room A/Cs, with new ENERGY STAR® qualified models.

12. Customer Interface

Customers can schedule their pickups of refrigerators and freezers through a toll free 800 number or the SCE web site (www.sce.com). ARP has offered online scheduling since 2003 and, is well received with over 22,000 customers choosing that option to schedule their appointment. We will encourage more customers to use the online option since it offers both customer convenience (24/7 scheduling) and program administration cost efficiencies.

Currently, customers receive a check by mail 4-6 weeks following the pickup of their appliance. To offer customers more convenience, ARP will explore new incentive

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delivery options. These options may include direct deposit and/or a credit off the customer’s SCE electric bill. Customers will be surveyed to determine their preference for other options beyond getting a “check in the mail”.

SCE’s implementation of refrigerator and freezer “Pick- up Day Events” and room A/C “Turn-in Events” offer customers an easy way to turn-in and, in some cases, early retire their old, inefficient refrigerators, freezers and room A/Cs with energy efficient ENERGY STAR® models. Both event types will be held on a selected day of the week to facilitate customer participation. Further, SCE will solicit the support of community-based agencies, local partnerships/governments, retail appliance stores, home improvement centers, and others to promote these events.

13. Energy Measures and Program Activities

13.1. Measures Information

Additional measure information is provided in the corresponding portfolio workbook.

13.2. Energy Savings and Demand Reduction Level Data

Energy savings and demand reduction information provided in corresponding portfolio workbook.

13.3. Non-energy Activities

Not applicable

13.4 Subcontractor Activities

SCE plans to issue an RFP for recycling services for the 2006-08 program period and, as recommended by the PAG, will encourage bidders to submit suggestions on ways to improve the program from both a program delivery and customer service perspective. As program administrator, SCE will oversee the recycling vendor's scheduling and collections of refrigerators and freezers, including "Pick Up Day Events" and collections from room A/C "Turn In Events". The vendor is also responsible for the recycling process of dismantling the refrigerators, freezers and room A/Cs and removing oils and refrigerants. The vendor must meet the comprehensive toxic material recycling and disposal standards in conformance with California environmental laws and regulations, along with relevant permitting requirements.

13.5. Quality Assurance and Evaluation Activities

The following activities will be undertaken to assess quality assurance and program compliance:

- ARP will randomly survey approximately 5% of all program participants. This survey will gather specific program information to ensure customer satisfaction.
- Recycling center site visits will be conducted on a monthly basis to verify the recycling vendor is complying with all program rules governing the disposal of collected appliances.
- Ride-alongs will be conducted with recycling vendor drivers to verify eligibility compliance of units collected and appropriate field procedures.

13.5.1. Expected Number/Percent of Inspections

- Minimum of 12 recycling center site visits will be conducted annually to verify program compliance on collected appliances.
- Minimum of 12 ride-alongs will be conducted annually with different recycling vendor drivers to verify program compliance.

13.6. Marketing Activities

The Appliance Recycling Program will coordinate marketing tactics with manufacturers, distributors, retailers, home improvement centers, contractors, and other energy efficiency and demand response programs (as appropriate) to achieve the desired levels of customer awareness and program participation. Marketing activities may include, but are not limited to:

- Point of Sale collateral materials (clings, shelf talkers, counter stands, etc.) – at participating retail locations
- Advertisements in retail circulars (as available and appropriate)

- Bill inserts
- Community outreach (e.g. community-based organization outreach to low-income households, in conjunction with the delivery of utility- and state-funded efficiency programs; promotions at home shows, etc.)
- Direct mail (e.g. targeted program promotions to customers who may be most eligible or interested in recycling services.). This may include cross-promotional direct mail with other demand response programs (e.g. Summer Discount Plan).
- E-mail blasts to customers participating in home energy survey programs or other SCE service offerings
- Shared mail (e.g. ValPak, ADVO, etc.)
- Home Energy Efficiency Survey analysis and recommendation packages
- Statewide advertising campaigns

14. Program Changes

SCE conducted a competitive program solicitation targeted at this program strategy. As a result, SCE plans to use two program implementers to deliver the services. The program implementers will be directed to work in different parts of SCE's service territory. As a result, SCE include additional program enhancements during the program cycle based on the individual program implementers input and capabilities.