

## Public Workshop Amending Small Can Regulation



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## What are we proposing?

- Eliminate refundable deposit on each product container and the container return program
- Eliminate requirement for refrigerant recovery from the returned containers
- Expected effective date prior to Summer 2016

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## Background: Regulation

- Measure to reduce R-134a refrigerant emissions from do-it-yourself automotive A/C servicing
- Adopted by the Board in January 2009 as a Discrete Early Action Measure
- Regulatory Requirements:
  - Self-sealing valve on all containers
  - Improved labeling instructions/consumer education program
  - **Deposit and recycling programs**
  - Product Certification
- <http://www.arb.ca.gov/cc/hfc-mac/hfcdiy/hfcdiy.htm>

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## Why Amend the Regulation?

- Low refrigerant recovery
  - Clodic study (2008) suggested can heel of ~20%
  - Manufacturers reported 3.9%
  - **In-house testing indicated 4.3%**
- Low used can return rate
  - Can return rate regulatory benchmark 95%
  - Manufacturers' pilot study (2008) ~75%
    - \$5 refundable deposit
  - Retailers reports- can return rate ~70%
  - **Consumer survey: respondents return rate ~50%**
- **Unreturned can deposits retained by retailers**

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## Small Can Testing

Are cans leaking contributing to low can heel?

- Leak tested full and half-full product containers
  - Purchased over 120 products (6 product lines) purchased from local retailers
  - Leak tested in ARB laboratory for **5 months**
  - All the product lines met the 3.0 gram per year standard
  - Leak rates do not explain low can heels.

Is the can heel in returned cans much lower than anticipated?

- Collected returned cans from major retailers
  - Evacuated a sampling (10 to 22 oz.) of these cans.
  - Average can heel was 4.3%
  - Agrees with manufacturers' reported data

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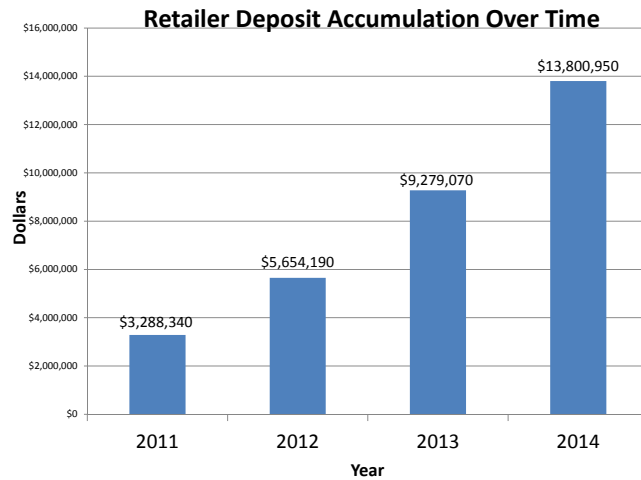
## Consumer Survey

Are consumers retaining cans for subsequent re-charges?

- About half of the respondents were returning cans to the retailer for their deposit
  - Contributing to low return rate
- Over 20% of respondents threw the can away instead of returning them to the retailer for a refund
  - Contributing to low return rate
- Almost 35% of respondents were instructed by retail store staff to empty the cans before they would be accepted as cans
  - Contributing to low can heel
  - Possibly consumers placing on shelf for re-use
- For those not returning the cans:
  - About 25% of respondents were not aware of the refundable deposit
  - 38% kept the product because there was still R-134a in the can

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## Accumulated Unrefunded Deposit Money



- A poll of the major “Small Can” retailers revealed that over 80% placed the money in the stores’ bank account.

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## Emission and Cost Impact

	BAU	Under current regulation (2011-2013 average)	Under amended regulation (as proposed)
Sales	1.92 million	1.08 million*	1.08 million
Return rate		71%	
Can heel	22%	2%-4%	2%-4%
Emission	0.85 MMTCO <sub>2</sub> e	0.47 MMTCO <sub>2</sub> e	0.48 MMTCO <sub>2</sub> e**
Emission Reduction		0.38 MMTCO <sub>2</sub> e	0.37 MMTCO <sub>2</sub> e
Consumer expense	\$19.2 million	\$15.0 million	\$11.9 million
Consumer saving		\$4.2 million	\$7.3 million
Cost-effectiveness		-\$11/MTCO <sub>2</sub> e	-\$20/MTCO <sub>2</sub> e

\* Self-sealing valve enables the cans to retain refrigerant for additional usage, hence reducing can sales. Improved AC leak tightness may have also contributed to the decrease of can sales.

\*\* Emission increase from the current regulation would be partially offset by indirect emission reductions due to saved trips to return cans between consumers, retailers, and manufacturers, and from saved electricity consumption to recover can heel by manufacturers.

## Remaining Issues

- Sell-Through Period for Existing Products with Refundable Deposit Language
- Recycling of the used containers
- Unreturned Container Deposit Money

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## Additional Information

### The Small Can Regulation Website

<http://www.arb.ca.gov/cc/hfc-mac/hfcdiy/meetings/meetings.htm>

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