

## DOCKETED

<b>Docket Number:</b>	16-OIR-02
<b>Project Title:</b>	SB 350 Barriers Report
<b>TN #:</b>	213819
<b>Document Title:</b>	Marti Frank Comments: The Shift Model - a new program design for efficient products
<b>Description:</b>	N/A
<b>Filer:</b>	System
<b>Organization:</b>	Marti Frank
<b>Submitter Role:</b>	Public
<b>Submission Date:</b>	9/28/2016 10:52:27 AM
<b>Docketed Date:</b>	9/28/2016

*Comment Received From: Marti Frank*

*Submitted On: 9/28/2016*

*Docket Number: 16-OIR-02*

**The Shift Model - a new program design for efficient products**

*Additional submitted attachment is included below.*

# the Shift Model

## The Problem

*Today's appliance programs are not working.* Evaluators routinely assess them with high free-ridership rates. And, despite the fact that incentives are widely available and Energy Star's brand recognition is better than ever, baseline efficient models make up a substantial proportion of all models sold.

Major retailer sales data from two US regions show **baseline, inefficient models** made up a substantial proportion of appliance sales in late 2015-2016, including:

- 80-88% of top-freezer refrigerators
- 46-90% of side-freezer refrigerators
- 35-48% of clothes washers
- 71-83% of room ACs

Compounding these challenges is the fact that California's appliance incentive programs have disproportionately benefited households that are white, upper income, college-educated, or English speaking.<sup>1</sup>

## The Solution: The Shift Model

*The Shift Model is a new, evidence-based approach to appliance program design that solves the challenges facing today's programs.* The Shift Model will substantially increase sales of Energy Star appliances while achieving free ridership rates of less than 15%. And, the primary beneficiaries of the Shift Model will be lower-income homeowners and renters.

## Evidence-based Design

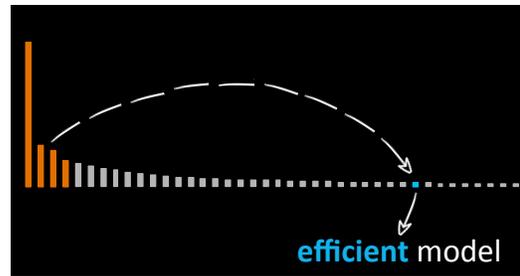
The Shift Model is designed around a key insight: in nearly every product category, a small number of models account for half (or more) of all sales – and these best-selling models are rarely efficient.

What's more, the best-selling models are nearly always the cheapest models in the store – sold at what retailers and manufacturers call the "volume" price points, to reflect their high sales relative to more expensive products.



<sup>1</sup> Marti Frank and Seth Nowak. "Who's Participating and Who's Not? The unintended consequences of 'untargeted' programs." ACEEE Summer Study on Energy Efficiency in Buildings. Asilomar, CA: 2016; Marti Frank et. al. "A Systematic Approach to

Efficient models, comparable in features to the best-selling, inefficient models, *are* available and can be found in most retail assortments and manufacturer product lines. The incremental cost of these comparable efficient models is typically \$25-100, however the efficient models may only be available online or by special order.

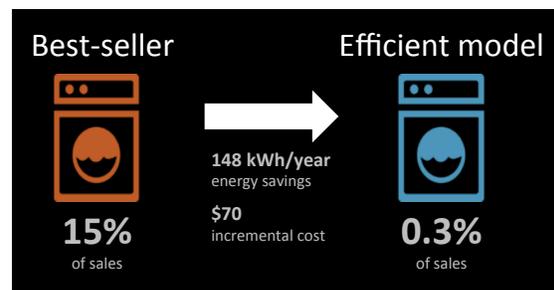


### Targeted Approach

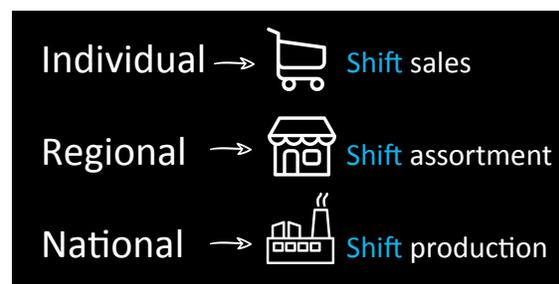
*The Shift Model focuses program design on the two primary barriers to increased adoption of efficient appliances: incremental cost and availability.* All program activities are focused on:

- 1) identifying best-selling but inefficient product models,
- 2) identifying comparable, efficient models,
- 3) using incentives to buy down the incremental cost of comparable efficient models, and
- 4) increasing availability of comparable efficient models.

*The Shift Model uses retailer point-of-sale data and systematic screening criteria to identify “shiftable” products* – product categories with incremental pricing, in which inefficient models sell at high volumes, and in which comparable, efficient models are available at an incremental cost that can be cost-effectively bridged with per-unit incentives.



*The Shift Model incorporates a planned ascent up the supply chain*, as the program builds scale, another unique feature among midstream product programs. When implemented by individual funders, the Shift Model focuses on shifting customer purchases within a retailer’s existing assortment. Regional funders will work directly with retailers to make targeted substitutions within product assortments. National funders will work directly with manufacturers to increase the efficiency specifications of the lowest-priced models in the product line.



### Key Activities

*The key activities of the Shift Model will be familiar to utilities and program implementers.* They include:

**Data management.** Retail data analysis to identify “shiftable” product categories, targeted models, incremental cost range, energy savings. Sales data tracking.

*Marketing and outreach.* Strategy design based on target audience, client needs, and retailer requirements. Materials design, including sales associate trainings, in-store, and other customer-facing marketing.

*Field staff deployment.* Conduct training for sales associates and store managers. Place and maintain in-store materials.

*Retailer and manufacturer relationship management.* Coordinate data transfer. Gain permissions for in-store work. Negotiate shifts in assortment and production.

*Incentive payment processing.* Monthly reconciliation of incented unit volumes. Payment of incentives.

### **Predictable Results**

The Shift Model's impact can be predicted with great accuracy using retailer sales data, including the number of "shifted" (i.e. incented) units and the rate of free-ridership. Sales data show the rate of free-ridership will be 5-15%, much lower than the estimated free-ridership rates of 66-73% for refrigerators and 47-53% for room ACs for Southern California Edison's 2006-2008 incentive program.<sup>2</sup>

Perhaps most instrumental for California utilities, the Shift Model will result in the accrual of nearly all energy and cost saving benefits to underserved and disadvantaged populations, including low- and middle-income households (many of which are non-white), and renters. This is a result of the Shift Model's focus on shifting sales away from best-selling, inexpensive products, which manufacturers design specifically for lower income buyers (who cannot afford to pay more) and for landlords or other cost-conscious purchasers (who are not willing to pay more).

### **Summary of Benefits**

*The Shift Model's targeted, evidence-based design comes with four big benefits:*

*Simple.* The targeted design means a small number of qualified products, reducing the cost of administration, data management, and fieldwork.

*Measurable.* In-store impact is measurable using pre/post sales data. Because activities are narrowly targeted, upstream impacts can be evaluated using standard qualitative methods.

*Scalable.* Approach and tactics shift as geographic reach grows: individual funders aim to shift sales within retail stores; regional funders work with retailers to shift assortment; national funders work with manufacturers to shift production.

*Equitable.* The Shift Model will increase adoption of efficient appliances at the lowest price points, whose purchasers are typically lower-income households and landlords.

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<sup>2</sup> KEMA. "Process Evaluation of Southern California Edison's 2006-2008 Home Energy Efficiency Rebate (HEER) Program. Final Report (Report ID: SCE0278)."