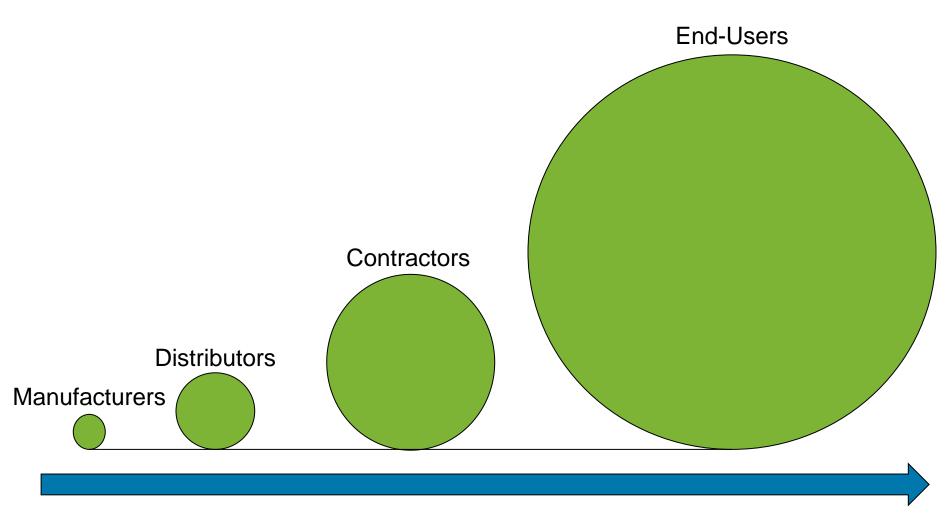


Upstream Approaches to Commercial and Industrial Lighting Programs...and Other Potential Markets



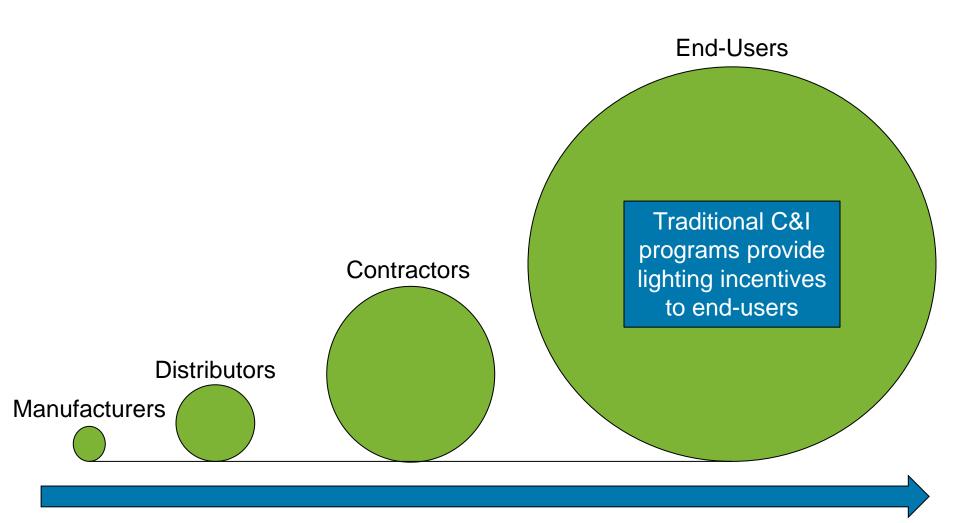
Phil Mosenthal, Optimal Energy, Inc. On Behalf of the Illinois Attorney General's Office

Illinois Stakeholder Advisory Group March 19, 2013



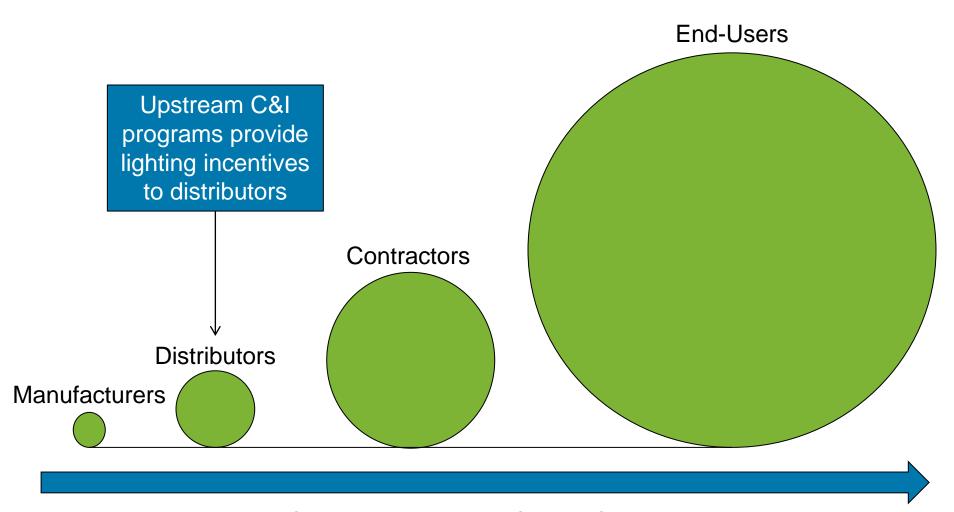
Commercial Lighting Supply Chain





Commercial Lighting Supply Chain





Commercial Lighting Supply Chain



Why shift incentives Upstream?

Manufacturer/Distributor Perspective:

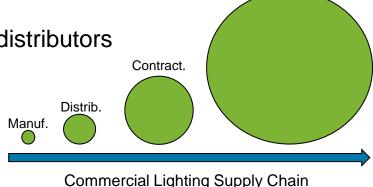
- Allows manufacturers/distributors to more directly harness power of incentives to sell more EE products
 - Leverages upstream sales force--they are better at selling their product than program administrators
 - They are engaged with transaction at the "right time"
 - They bring along contractors
- Acknowledges that many sales are based on lowest first cost
 - Reduces or eliminates customers up-front cost barrier with lower utility incentives
 - Addresses wholesale incremental costs and may leverage State sales tax
- Reduces or eliminates risk of stocking and prioritizing selling of EE products
 - "If the efficient product is the same cost to my customers and carries the same or better performance, why would I stock or sell less efficient product?"
 - Quickly transforms markets and brings in laggard distributors



Why shift incentives Upstream?

EE Program Perspective:

- More effective method to engage the supply chain
- More participation and savings compared to downstream
- Leverage market to reach more customers
 - Particularly beneficial for market-driven products and purchases (no need to find customers at correct moment, they find the contractors and distributors, who do the selling for you)
- Streamlined and cost-efficient process for increased scale
 - Fewer touch points
 - Shift data collection responsibility to distributors
 - Electronic data upload and validation
 - Easier way to capture real-time market saturation data
 - Lower cost per unit savings



End-

Users

Considerations Compared to Traditional Downstream Programs

- Lose customer touch point
- Lack of site-specific data for each installation? (e.g. hours of use)
- EM&V challenges and opportunities
- Gaming of program rules
- Products sold, but not installed
- Products sold, but installed elsewhere
- Credit to EE program for providing incentive
- Confining sales to program or utility territory
- Paying incentive to distributor rather than ratepayer
- Overlap with continued downstream programs



Keys to Success

- 1. Robust distributor outreach program
 - Training
 - Account management
 - Regular communication
- Engagement with lamp manufacturer representatives to drive the program from above—including MOU
- 3. Marketing (website, print collateral) to **drive participation from below—including cooperative advertising**
- 4. Well publicized qualifying eligible products
- 5. Distributor agreement / MOU to clearly outline program rules



Lessons Learned

- 1. Distributors are incredibly "creative." If there is any possible way to game the system, they will find it.
 - Clear rules and guidelines within the agreement/MOU help
- Program must be flexible enough to quickly change rebate levels.
 - Product pricing, especially with LEDs, can change fast
- 3. Consider restricting distributor participation in-state distributors and border communities.
 - Can be difficult to manage out-of-state and on-line distributors.
- 4. Crediting savings to specific customers is difficult.
 - Batch processing provides significant admin cost savings
 - Difficult to capture customer-specific operating hours
 - Drop ship and contractor provided customer names and addresses generally sufficient



Upstream C&I Lighting Program Examples

- Efficiency New Brunswick (2007 2010)
 - www.efficiencynb.ca/commercial/commercial-lighting.html
- California and Nevada (2007 Present)
 - www.cainstantrebates.com
- ComEd (2011 Present)
 - www.comed.com/business-savings/programsincentives/Pages/lighting-distributors.aspx
- Efficiency Vermont (2009 Present)
 - www.efficiencyvermont.com/smartlight
- Massachusetts and Rhode Island (2011 Present)
 - www.masssave.com/professionals/incentives/upstream-lighting



New England Experience

Timeline (MA/RI)

- Sep 2011 Upstream Lighting (RWT8, T5HO) launched in MA
- Nov 2011 LEDs added
- ▶ Feb 2012 Launched in RI (GRID)
- ▶ Jun 2012 Added new LED products

Statistics (MA/RI)

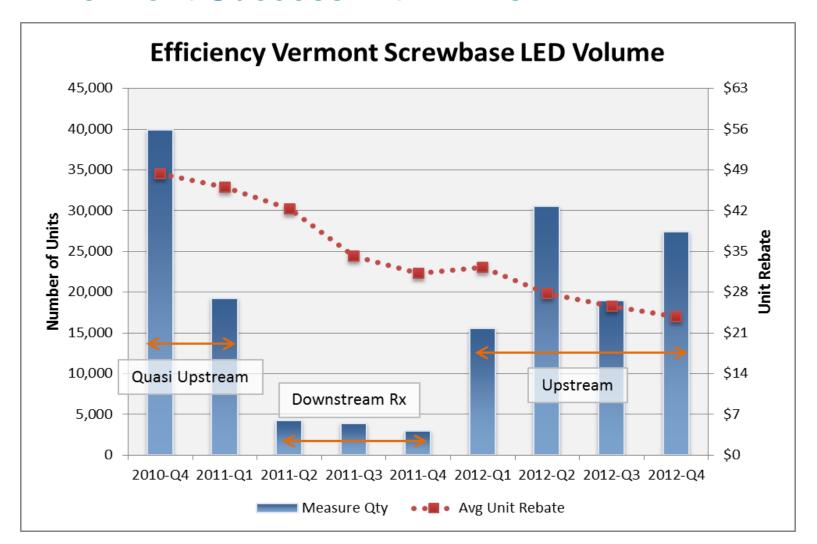
- ▶ 16 Manufacturers including GE, Philips, Sylvania, Toshiba
- ▶ 50+ Distributors
- ▶ 2012 results: > 2,000,000 lamps, > \$15 Mil Incentives provided
- ▶ 2012 savings: > 100,000 MWh, > 0.2% of load, @ 21¢/kwh

Results (MA/VT)

- After just one quarter of program delivery Massachusetts sales of LEDs accounted for 30% of total national sales of LEDs (source: Sylvania)
- After one year, LEDs accounted for 30% of Efficiency
 Vermont C&I lighting savings, grew to 45% in second year



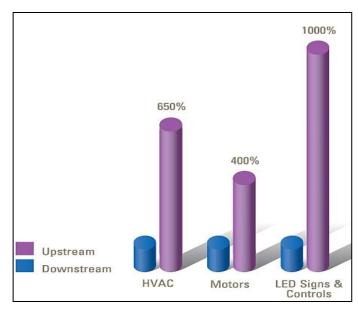
Vermont Success with LEDs





Upstream Approach also works with other Technologies Results from California

- California and Nevada Upstream Program also includes:
 - HVAC
 - Motors
 - Water Heaters
 - Commercial Food Service Equip.
- Massachusetts and Rhode Island Upstream expanding to:
 - HVAC (Q2 2013)
 - Refrigeration (future)
 - Commercial Food Service Equip. (future)

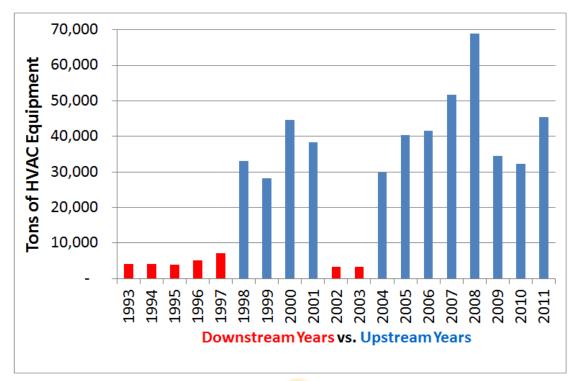


Average Annual Energy Efficiency Program Performance Downstream vs. Upstream Source: Daniel Cornejo, Energy Solutions

Focus on widget-based products purchased at time of natural replacement/new construction

Compelling Upstream HVAC Results from California

- ▶ 1993-1997, and 2002/3: Downstream program approach
- 1998-2001, and 2004-2011: Upstream program approach









Thank you

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