



# Broadening the Application of Upstream Incentives in the Utilities' Next 3-Year Plans

November 16, 2015



Albert, Righter & Tittmann Architects, Inc.

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# Rationale for Going Upstream

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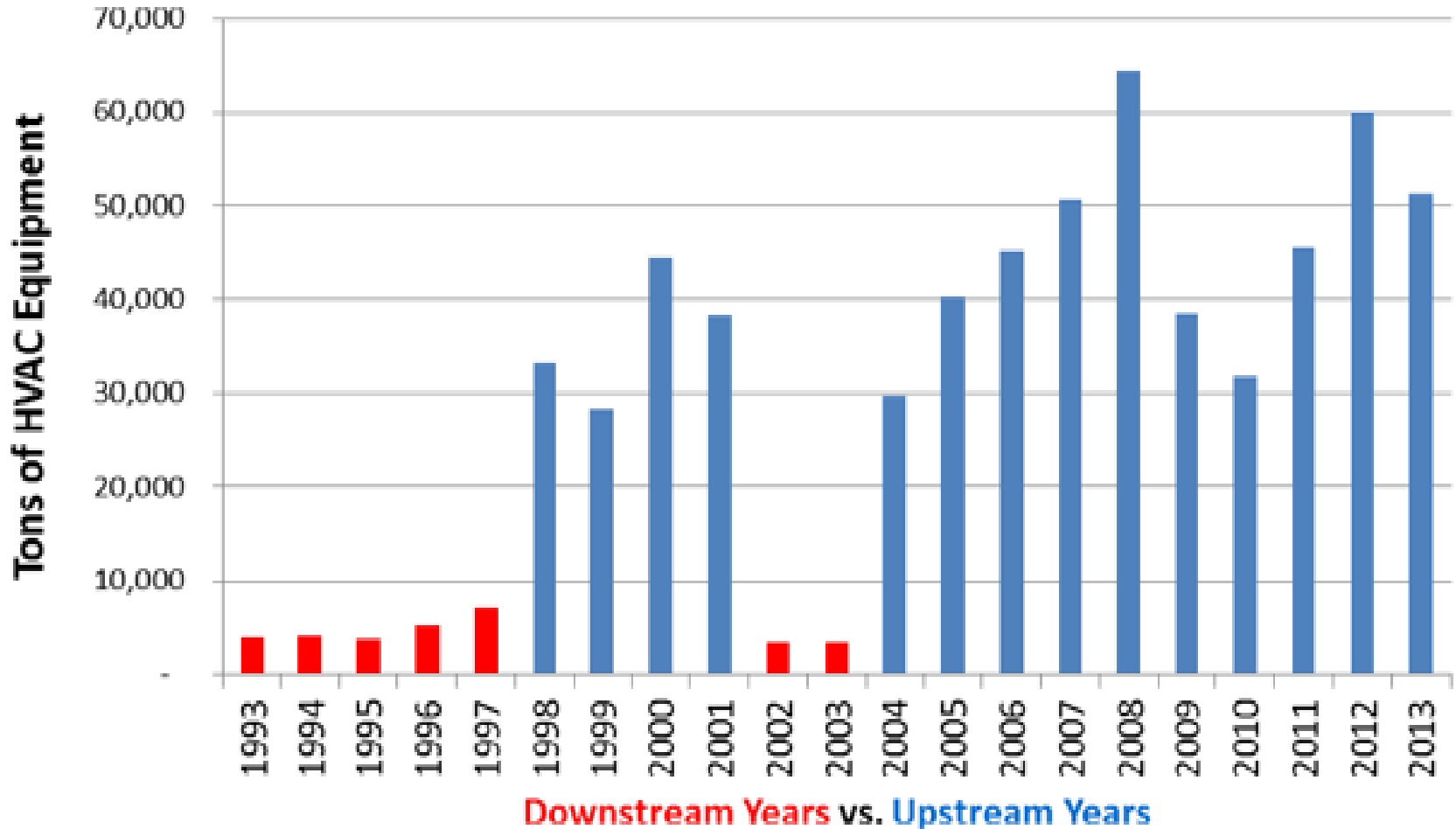
- Increase participation (and savings)
  - ▣ Particularly measures with limited traction today
- Eventually lowers program transaction costs
- May allow lowering of incentive levels

# Why Participation Increases

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- Same incentive covers higher % of incr. cost
  - ▣ Before distributor mark-up to contractor
  - ▣ Before contractor mark-up to consumer
- Broader reach
  - ▣ Indirectly influences mid-stream contractors who weren't interested or able to market efficiency
- Eliminates mid-stream paperwork barriers
  - ▣ e.g. HVAC contractors hate program/rebate forms
    - to the point where they often choose to not market efficiency

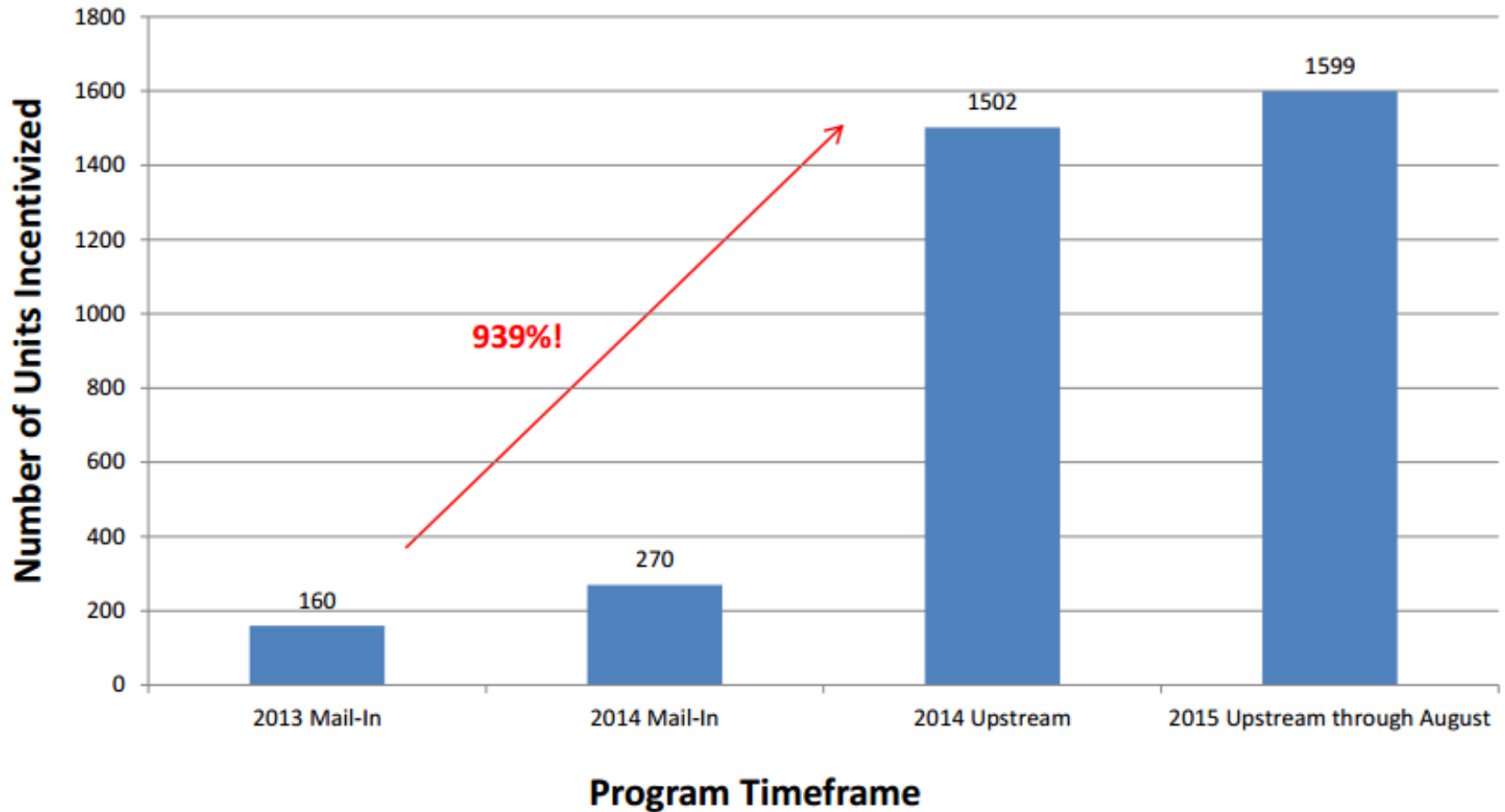
# CA Commercial HVAC



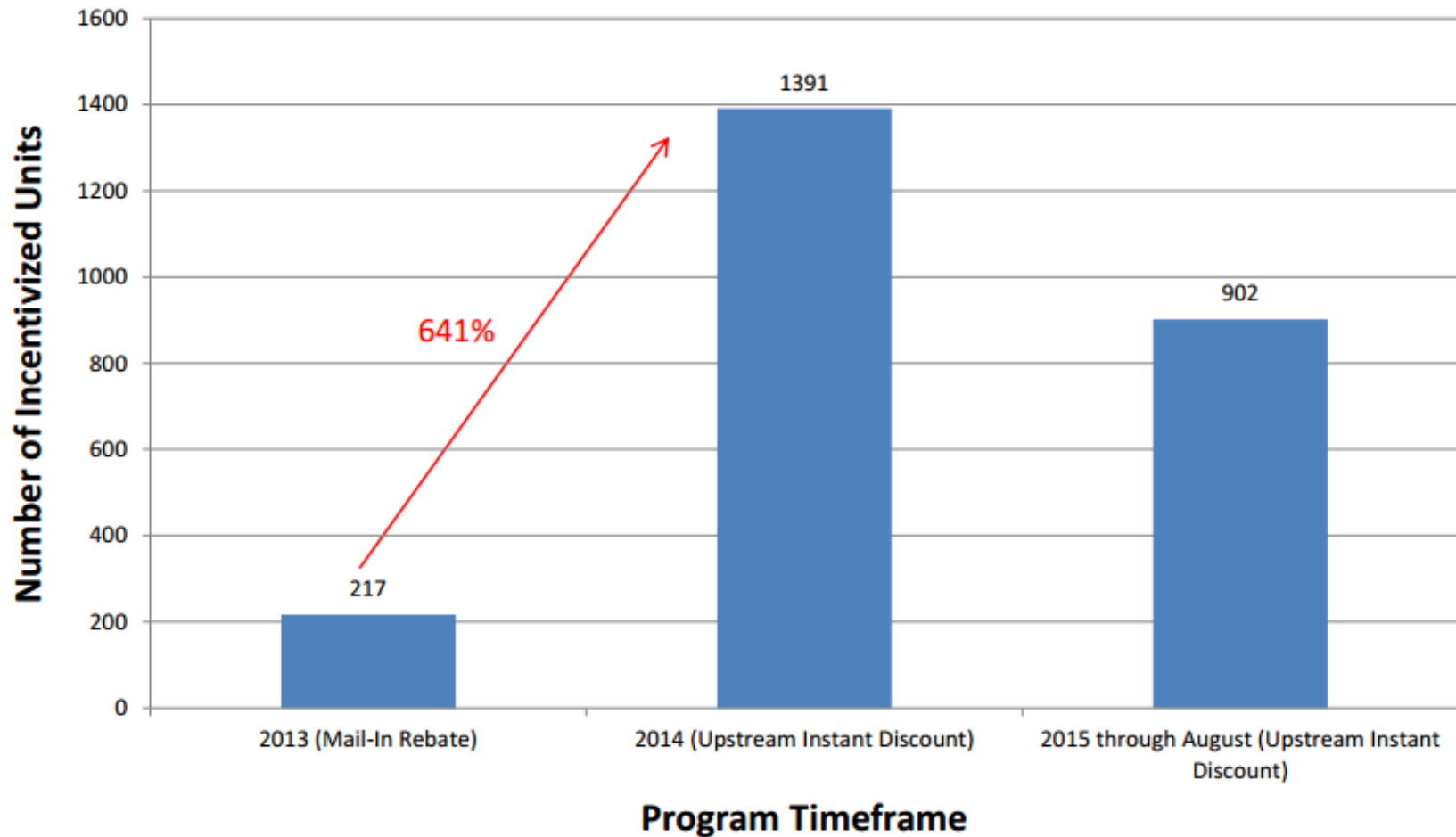
*Updated graph provided by Jim Hanna, Energy Solutions, to Phil Mosenthal*

# CT Gas Water Heaters

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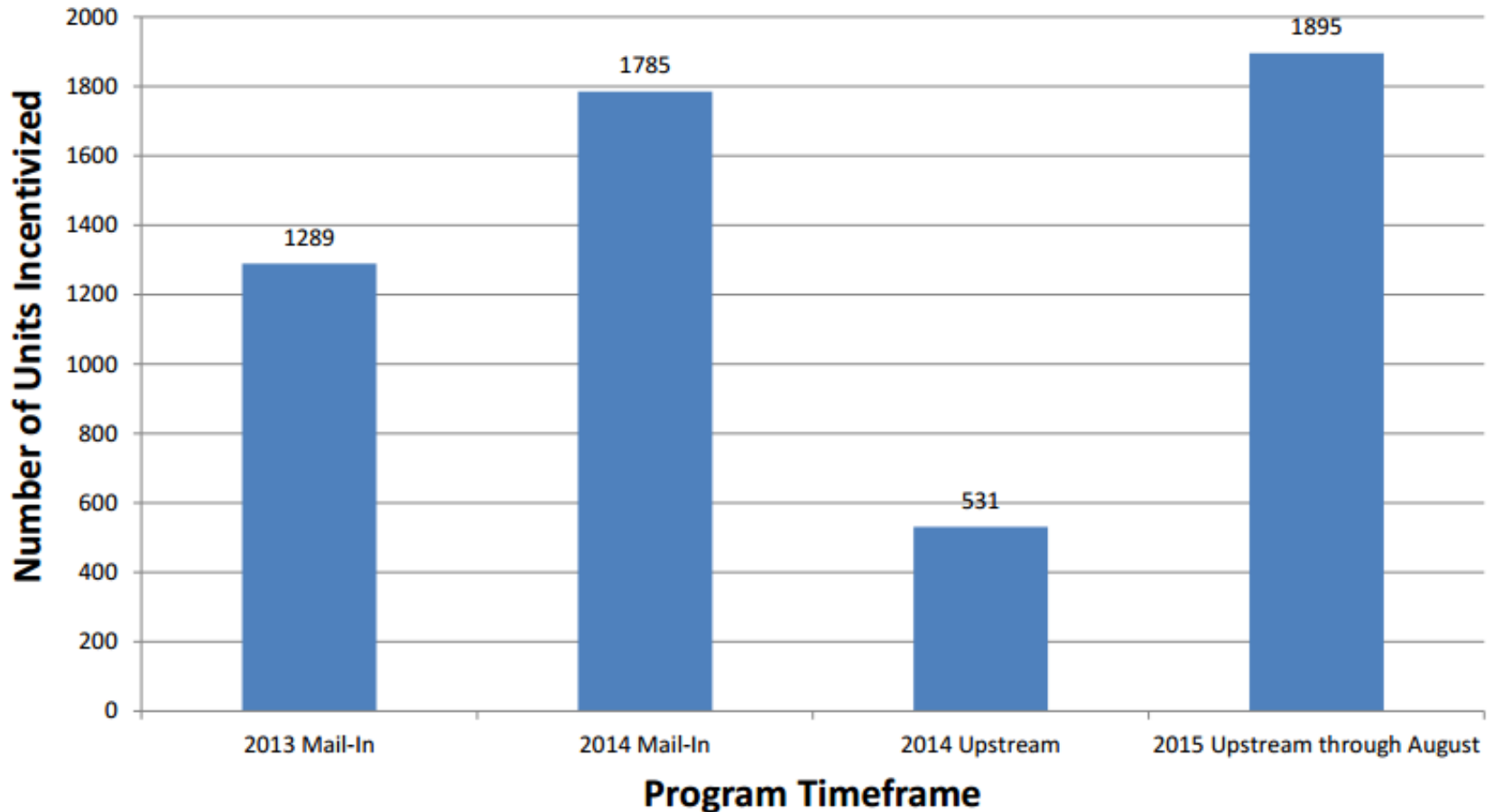


# CT Heat Pump Water Heaters



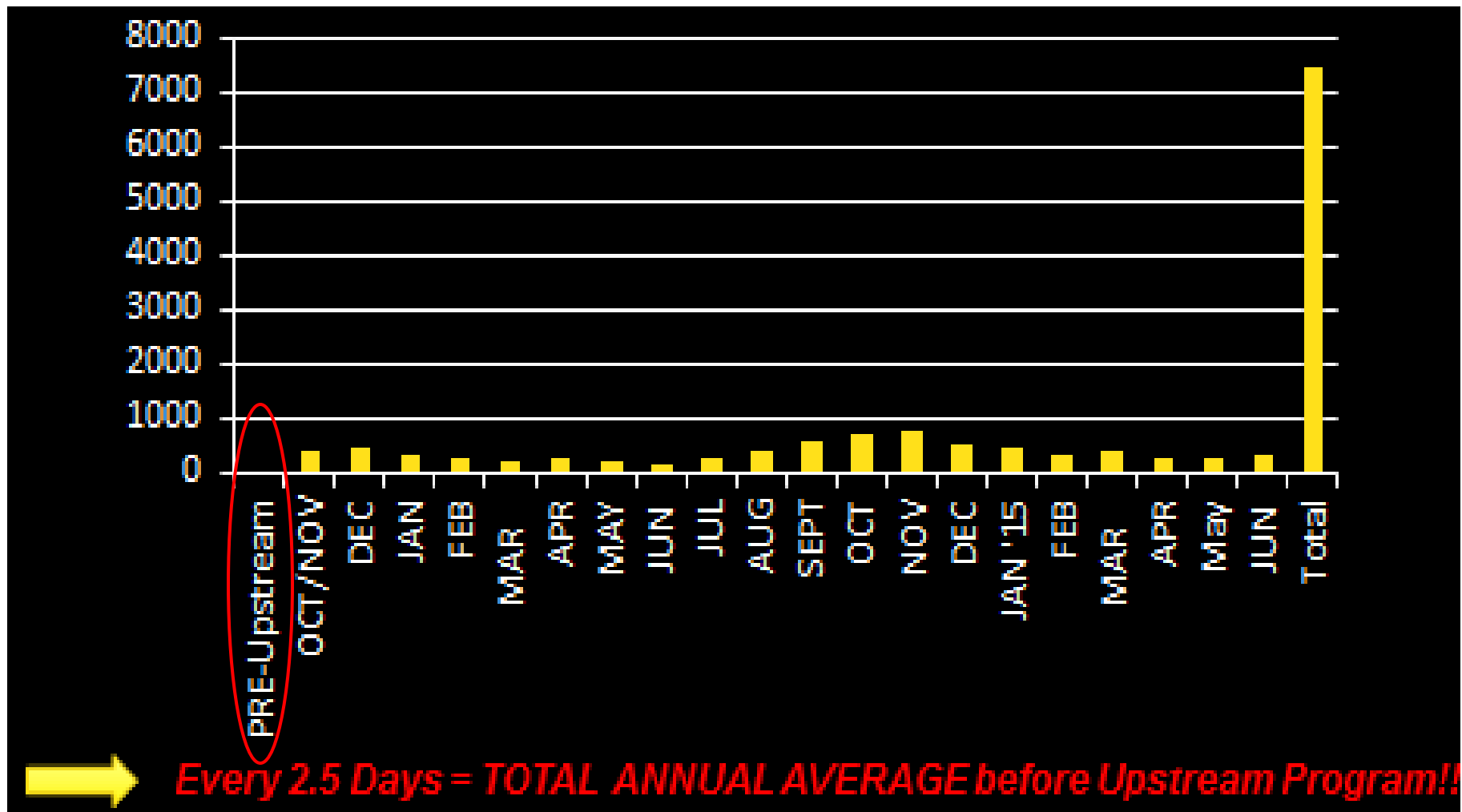
# CT Furnaces

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# VT Circulator Pumps (thru Jun 2015)

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Graph from Howard Merson, VEIC (administrator of Efficiency Vermont contract)



# Participation Impacts

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- ❑ Can be *very large* relative to downstream rebates
- ❑ Magnitude of increase varies
  - ❑ Higher with measures with biggest market barriers, limited traction to date
  - ❑ Higher with newer technology
  - ❑ Smaller increases with well-established measures
    - ❑ E.g. furnaces
    - ❑ But still an increase, just not as dramatic
    - ❑ And other benefits too

# Potential Targets for Upstream

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- Residential Lighting – Already doing
- C&I lighting – doing some, could expand
  - ▣ LED troffers?
- HVAC equipment
  - ▣ Residential & business
- Water heating equipment
- Motors
- Residential appliances

# How & Where to Start?

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- ❑ Not suggesting everything go upstream all at once
- ❑ Start with a couple of products
  - ❑ Minimize utilities's perceived risk
    - ❑ Especially if initial targets have low participation today
  - ❑ Learn, adjust, then broaden scope to others
- ❑ Potential initial candidates
  - ❑ Electric HVAC
  - ❑ Water heaters
  - ❑ HP dryers

# Where Does \$ Come From?

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- ❑ IPA where possible
- ❑ Otherwise, existing program \$ for same measures
  - ❑ Incentive levels won't be higher, could decline over time
  - ❑ Some non-incentive savings after initial set-up
- ❑ If there are huge participation increases (5-10x)...
  - ❑ Decide which measures to prioritize – juggling exercise
    - ❑ Weigh cost per kWh trade-offs
    - ❑ But preference for deeper penetration (MT impacts) with fewer measures to “mile wide, inch deep” approach with many
  - ❑ Advantage of phasing in moves upstream

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## Q&A

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