



# ***Programmable Thermostat Program Proposal***

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# Why change the program?



- **Available studies indicate no savings from programmable thermostat (PT) installation. Some studies indicate slight increased consumption.**
- **Enhanced education by EPA, manufacturers, and program sponsors may increase effective use of set backs/set ups.**
- **Little differentiation between E\* PT's and conventional PT's.**



# Current Revision Status



- **Version 1.0 effective April, 1995**
- **Draft 1 of V2.0 was distributed in mid-2003**
- **Stakeholder meeting October, 2003**
- **On-going discussions with industry on Draft 2 of V2.0**



# Problems Labeling Programmable Thermostats



- **Consumer confusion over savings from PT installation vs. proper use**
- **PT's can jeopardize “right-sized” A/C performance**
- **E\* focuses on retail sales, yet vast majority of Tstat sales to HVAC contractors with no end user input**
- **No meaningful E\* differentiation:**
  - E\* doesn't dictate user interface – no silver bullet for consumer friendliness, E\* and non-E\* have improved interfaces
  - When we choose less aggressive setbacks – necessary for consumer acceptance



# Field Realities



- **5 field studies show no statistical PT savings over households using non-programmable Tstats**
- **PT's unlikely to result in more conservative settings than manual set backs / set ups**



# Field Studies



<u>Organization</u>	<u>Investigators</u>	<u>Location &amp; Year</u>	<u>Sample size</u>	<u>Conclusions</u>
Southern California Edison	Paul Reeves Jeff Hirsch Carlos Haiad	CA 2004	N/A	Energy savings depend on behavior and can be + or -
Energy Center of Wisconsin	Monica Nevius Scott Pigg	WI 1999	299 homes	No significant savings. PT's don't change behavior.
Connecticut Natural Gas Corporation	David Cross David Judd	CN 1996	100 homes	PT's cause no significant behavior change.
BPA / PNNL	Craig Conner	NW 2001	150 homes	No significant behavior change / savings.
Florida Solar Energy Center	Danny Parker	FL 2000	150 homes	No savings, some increases.

# Bottom Line - Summary



- **No savings from installation**
- **Those that setback before, no savings -- those that didn't setback, no behavior change**
- **Only the behavior saves, not the 'box'**



# EPA Proposal



- **Transition program from equipment performance requirements to an educational campaign.**
- **Model campaign on other successful ENERGY STAR educational campaigns (i.e. Home Sealing, Home Performance, Change a Light, and Power Management).**
- **Evolve logo to educational graphic for manufacturers, retailers, and program sponsors to use on ANY Tstat. Use of graphic subject to participation in campaign.**
- **Target consumers:**
  - with PT's or manual Tstats
  - who don't already program or manually set back
    - ~50% of households at night
    - ~7% of households during day (not at home)





# Mock Up Only



**ENERGY STAR**

Use this product to save energy, money, and the environment:

- Set back/set up when you're asleep
- Set back/set up when no one is at home
- A difference of 5 degrees can save you up to \_\_\_% per year on your heating and cooling costs

[www.energystar.gov](http://www.energystar.gov)



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# Proposed Graphic Use



- **Applications of the educational graphic would be determined to optimize impact on consumer behavior**
- **Possible applications:**
  - Product packaging
  - Website
  - User manual
  - On product,
  - In-store POP,
  - Advertising,
  - Training materials
  - Other marketing collateral
- **Stakeholder input important!**



# Possible Campaign Elements



- **EPA collaborates with stakeholders to develop consistent messaging promoting set back behavior**
- **EPA integrates messaging into Cool Your World Campaign, and First Frost media outreach**
- **Participation in campaign by:**
  - Manufacturers
  - Retailers
  - Efficiency Sponsors



# Proposed Timeline



Activity	06												07	
	J	F	M	A	M	J	J	A	S	O	N	D	J	
Program evolution vetted at Jan. 11 <sup>th</sup> Industry Meeting	◆ 11		◆											
EPA collaborates with stakeholders to draft graphic, messaging, and campaign		◆		◆										
EPA works with stakeholders to finalize graphic, messaging, and campaign				◆		◆								
Mfrs decide on participation in campaign						◆	◆							
EPA launches educational campaign via press release and explains the transition from equipment performance to education													◆ 1	
All products and product literature transition from cert mark to educational graphic												◆ 31		
Participating mfrs begin using graphic and messaging													◆ 1	



# Next Steps



- 1. Letter announcing 30 day formal comment period for manufacturers, retailers, and program sponsors**
- 2. 30 day period for EPA decision on revising/proceeding with proposal**
- 3. If proposal moves forward, hold workshop on developing the educational campaign, messaging, and graphic with stakeholder input, this Spring**



# Contacts



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