



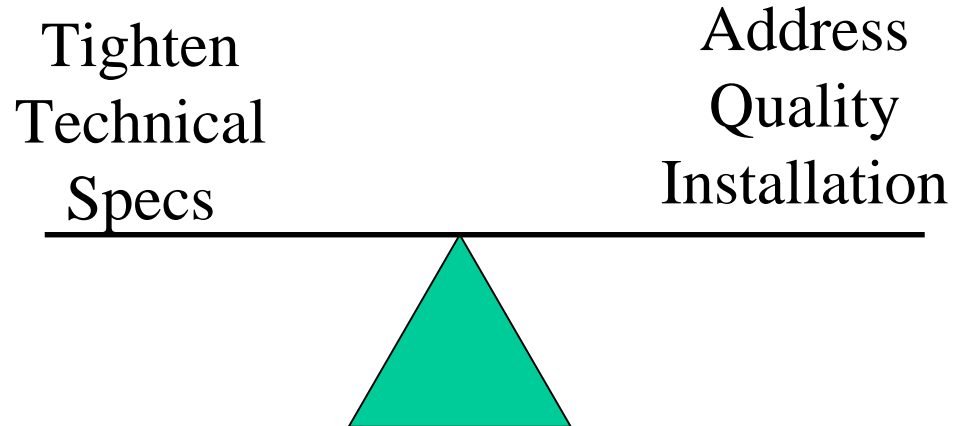
Structured Discussion Part I ENERGY STAR CAC/ASHP Equipment Specification

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The Next Frontier for HVAC



How do we capture significant energy savings, provide value to market actors, and keep program delivery manageable?

Capturing Energy Savings



	Savings Range/Average
14 SEER	7%
Sizing*	2-10%
Refrigerant charge*	12.5%
Airflow*	8.1%
Duct Leakage*	16.8%

What is the most cost-effective combination of options for most homes? Can they be implemented effectively?

Defining Value



Manufacturer

- Differentiation of products
- Brand & consumer loyalty
- Sales/profit

Contractor

- Differentiated services
- Sales/profit
- Consumer loyalty
- Reduced call backs
- Referrals

Consumer

- Energy/\$ savings
- Good investment
- Reliability/durability
- Comfort

EPA

- Energy/carbon savings
- Cost effective for consumer
- Reasonable program admin.
- Brand loyalty

EEPS

- Peak savings
- Sustained/quantified savings
- Reasonable admin.
- Cost-effective programs
- Satisfied customers

Equipment Specification Options



	Current		From Strawman	
	Split	Packaged	Split	Packaged
SEER	13	12	14	14
EER	11	10.5	12	11
HSPF	8	7.6	8.5	8

Do we Need an Equipment Spec?



- **YES** – We can still capture some energy savings, address peak, include some other useful criteria, and provide a platform for marketing.
 - What is value to consumers?
 - Will it stay true to the ENERGY STAR brand promise?
- **NO** – We don't need it anymore. SEER 14 isn't cost effective for enough consumers. Installation should be the focus.
 - What would we lose?
 - What is impact on manufacturers, contractors, utilities?

Options for an Equipment Spec



- Option I - Increase to **SEER 14**
 - Is this cost effective? Where?
 - Do EEPs have data on cost effectiveness?
 - What is value to manufacturers? contractors?
- Option II – Keep **SEER 13** but increase EER and HSPF
 - Peak value to utilities is maintained
 - Any value to manufacturers? contractors?
 - Relevance to consumers?

What About Additional Elements?



- Evaporator access for purposes of measurement and maintenance
- TXV for sustained performance
- On-board diagnostics

What are the challenges with each?

What is the value of each?