Deep Energy Retrofit Measures Verification

Worcester, MA





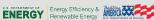


Deep Energy Retrofit Measures

Welcome!

Thanks to Our Sponsors!

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Workshop Agenda

- 9:00 am 9:15 am Welcome and introduction
- 9:15 am 10:00 am Overview of Massachusetts and Rhode Island DER programs, Why guidance and incentives are needed Potential savings and value proposition
- 10:00 am 3:00 pm The Joe zone

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Workshop Agenda

- 10:00 am 3:00 pm, Dr. Joe Essential principles, critical functions Applying enclosure principles to retrofit Retrofit examples
- 12:00 pm 12:45 pm **LUNCH**
- 12:45 pm 1:00 pm A few words from our hosts - IES

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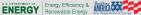




Workshop Agenda

- 3:15 pm 4:15 pm Pulling it all together: Specifications, Plans, Staged Retrofit, DER Pilot Verification Examples
- 4:15 pm 4:30 pm **Closing Remarks**

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Deep Energy Retrofit Measures

Who are you?

- Builders, contractors
- Architects, designers
- Developers
- Building officials, building commissioners
- Energy efficiency program sponsors
- Energy efficiency program implementation
- Regulators, program evaluators
- Building performance consultants
- Homeowners interested in DER
- Realtors, real estate professionals
- Other

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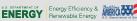




Deep Energy Retrofit Measures

Why are you here?

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What is Deep Energy Retrofit?

- Existing buildings brought to advanced energy performance
 - > 50% savings
 - > Focus on the building physical asset
- Leapfrog current housing
 - > Position for another 50-100 years of service

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What is Deep Energy Retrofit?

- Comprehensive High Performance
- > Durability
- > Comfort
- > Indoor air quality
- > Aesthetics
- > Amenity
- ➤ Energy

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Things you should know about DER

- 50% total energy reduction is a really BIG deal!
- > Especially if we still want to live in these houses
 - Coffee pots, toasters, microwaves, TV's, computers, refrigerators, dishwashers, clothes washers, dryers, freezers, lighting...

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Things you should know about DER

- 50% total energy reduction is a really BIG deal!
- If we're not going to radically change how we live, then we have to very radically change what we live in.

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Things you should know about DER

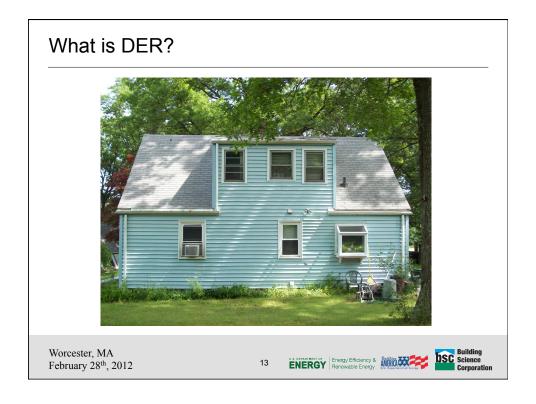
High performance leaves less room for error!

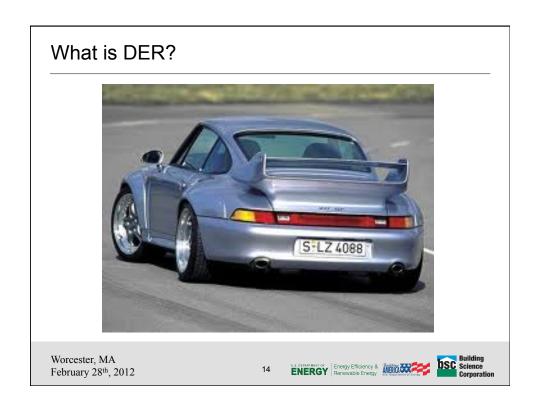
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Things you should know about DER

High performance leaves less room for error:

- > Drying potential reduced
- > Uncontrolled ventilation may have compensated for a multitude of sins

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Key Concepts of Deep Energy Retrofit

- The existing building is working but we may not know how it is working
- Be aware of change
 - (different than beware of change!)
- Modifications to the building must reduce known risks
 - Make the system more robust, not less

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