



Building America

Who's Successfully Doing Deep Energy Retrofits (DER)?

June 25, 2014

Moderator:

Gail Werren – National Renewable Energy Laboratory

Panelists:

Danny Parker – Florida Solar Energy Center

Alea German – Davis Energy Group

Brennan Less– Lawrence Berkeley National Laboratory

Some Housekeeping Items

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<http://energy.gov/eere/buildings/building-america-meetings#current>

Agenda

- ✓ Welcome and Introductory Remarks
- ✓ Overview of Building America (buildingamerica.gov)
 - Gail Werren: National Renewable Energy Laboratory
- ✓ Presentations
 - Danny Parker: Florida Solar Energy Center
 - Alea German: Davis Energy Group
 - Brennan Less: Lawrence Berkeley National Laboratory
- ✓ Questions and Answers
- ✓ Closing Remarks
- ✓ Survey

Overview of Building America



Who are we?

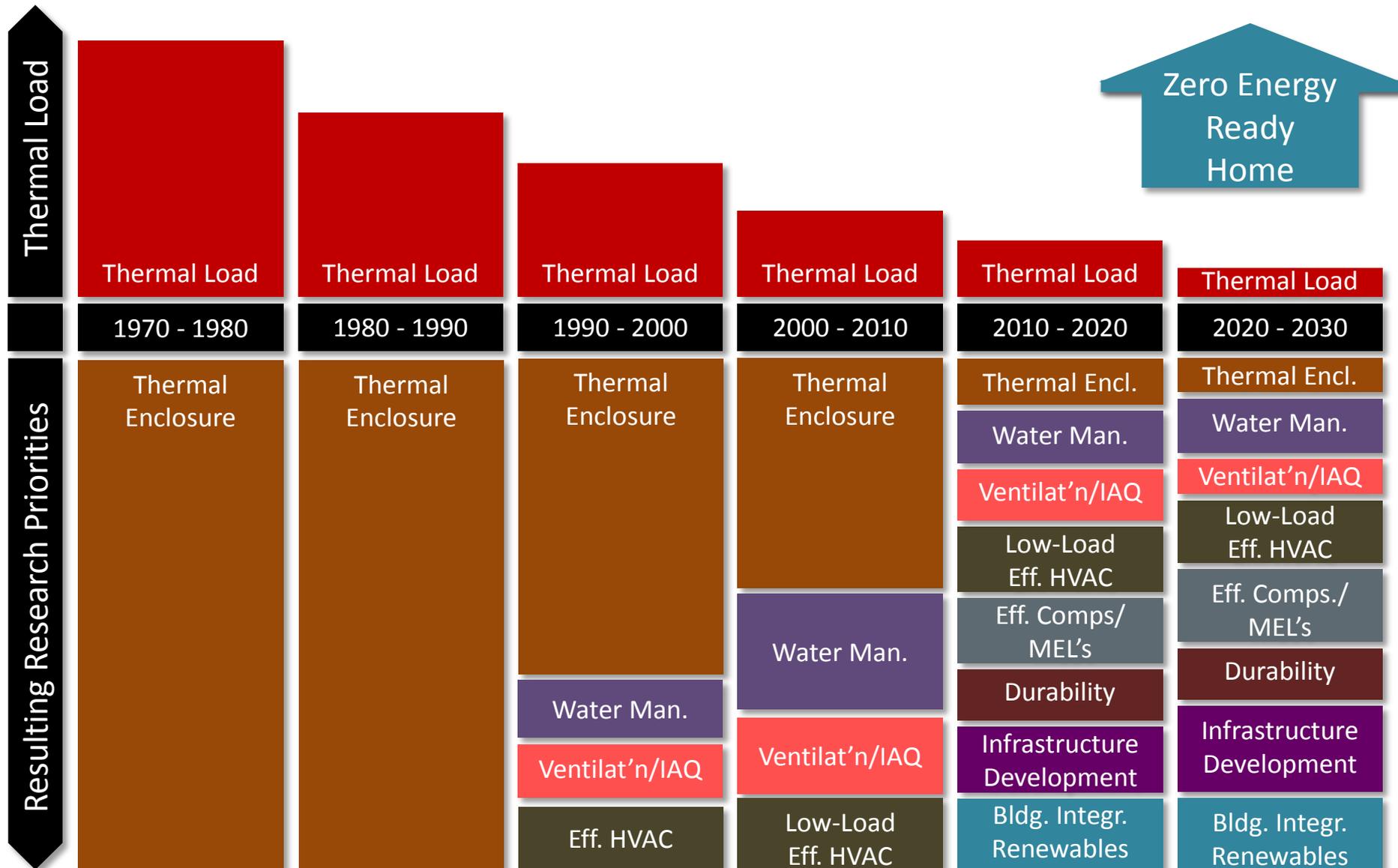


What do we do?

Building America Top Innovations



What are we researching?



What do we achieve?

Before Building America Pre-1995

- 3 times the energy
- IAQ, comfort, & durability problems

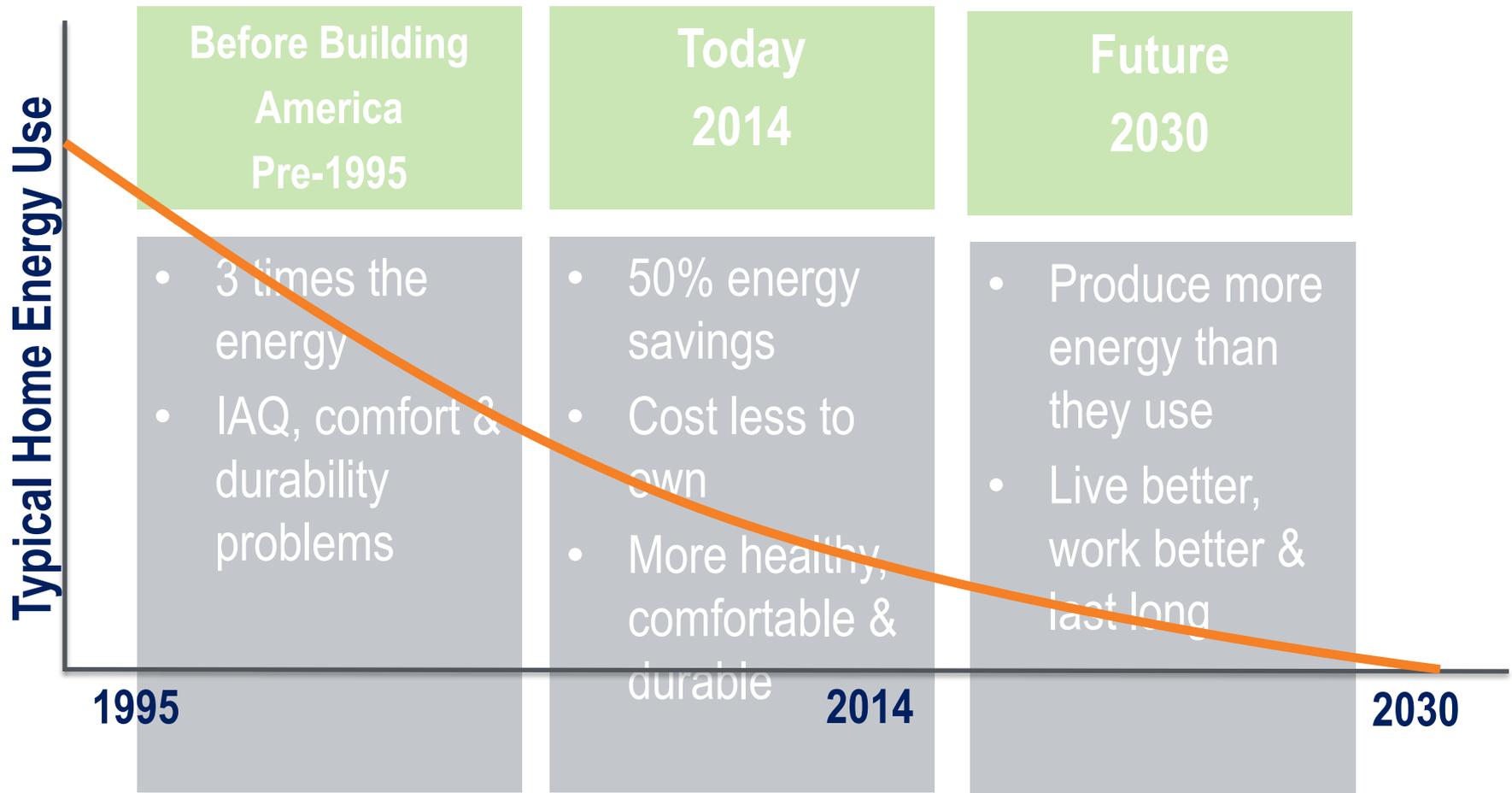
Today 2014

- 50% energy savings
- Cost less to own
- More healthy, comfortable, & durable

Future 2030

- Produce more energy than they use
- Live better, work better, & last longer

What do we achieve?



Where can I find resources?

Building America Solution Center:

Proven Innovations from
World-Class Research
... at Your Finger Tips



<https://basc.pnnl.gov/>





Building America Webinar Series

Topic 4: Who's Successfully Doing Deep Energy Retrofits (DER)?

Danny Parker, Principal Research Scientist Florida Solar Energy Center



Danny Parker works with the Building America Partnership for Improved Residential Construction (BA-PIRC) and specializes in collecting and analyzing measured data taken from residential and commercial buildings to determine how results may be applied to reducing energy needs. He has spent the last 25 years of his career in the field of energy-efficiency research. Much of his research over the last several years has been specifically related to high efficiency buildings and potential impacts when mated with renewable energy resources. He also has extensive experience with large-scale utility monitoring projects and evaluation of load control options. He holds several patents associated with innovative energy efficiency technologies.

Alea German, Senior Engineer, Davis Energy Group



Alea German is a Senior Engineer for Davis Energy Group. Focusing on technology assessment and whole building energy use optimization, she performs analysis and evaluation of energy efficient technologies in buildings using a combination of energy modeling and data monitoring. She is proficient in multiple modeling programs including EnergyPlus, BEopt, EQuest, EnergyPro, and Energy Gauge. Alea has worked in the energy field since 2006 and was previously employed by RLW Analytics where she conducted measurement and verification of energy incentive programs throughout the country. She has experience with field surveying and testing of energy efficiency measures both in retrofit and new construction applications. Alea is a registered Mechanical Engineer and earned her M.S. in Mechanical Engineering from the University of California, Davis and her B.S. in Mechanical Engineering from The Johns Hopkins University.

Brennan Less, Senior Research Associate, Lawrence Berkeley National Laboratory



Brennan Less has been building, testing or researching high performance homes for the past eight years. He has filled the roles of carpenter, construction manager, energy auditor, energy modeler, green products salesman, and building science student and researcher. He has worked in the Residential Building Systems Group at LBNL for four years, where he contributes to research projects including deep retrofits, zero-net energy homes, ventilation and indoor air quality.

Time for Q&A

Results from Phased Deep Retrofits in Florida

Danny Parker
dparker@fsec.ucf.edu



Deep Energy Retrofit Case Studies: Lessons Learned

Alea German
agerman@davisenergy.com

A National Summary of Deep Energy Retrofits

Brennan Less
bdless@lbl.gov

Survey

- How did we do?
- Your feedback is important!

Up Next...

July 16, 2014 3pm ET

Retrofitting Central Space Conditioning Strategies for Multifamily Buildings

The webinar will focus on improving the performance of central space conditioning systems in multifamily buildings.

Thank You!

PDF copies of the presentations in this Webinar are available at:

<http://energy.gov/eere/buildings/building-america-meetings#current>

Visit: *www.buildingamerica.gov*

