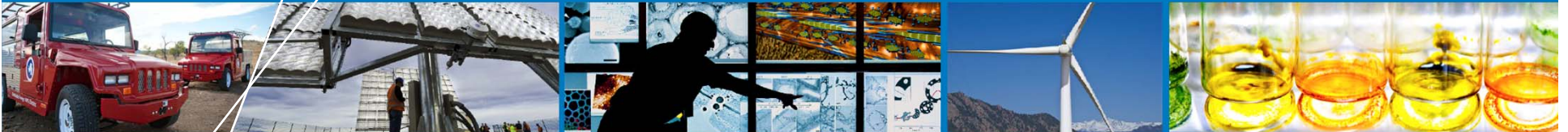


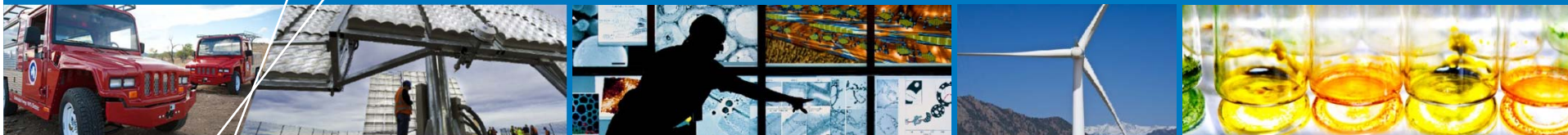
# Building America Field Data Repository



## Building America Webinar Series

**Noel Merket**

**16 April 2014**



# What is the BAFDR?

**Do retrofits deliver  
promised energy  
savings?**



Photo by Dennis Shroeder, NREL 17957

## BAFDR Project objectives

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Develop a repository of residential building characteristics data coupled with energy use data that can be used by researchers to investigate questions like:

- On average, how well do simulation tools predict energy use?
- What causes differences between predicted and measured energy use?
- What information about a home must be collected to accurately estimate energy savings from retrofit measures?





Photo by John Thornton, NREL 03544

Building  
America



Photo by Susan Bilo, NREL 21401

BA Field  
Monitoring



Photo by Dane Christensen, NREL 21657

Historical

#### **Field Data**

- Historical
  - Utility programs
  - WX programs
- Future
  - Building America
  - BetterBuildings
  - HPwES

## **Challenges:**

- 1. Gathering enough data**
- 2. Standardizing the format**

# Collecting Historical Data

Number of homes	Characteristics	Billing	Post Upgrade	Locations
2970	Full	Full	Yes	CO, IA
8341	Full	Full	Limited	OH, WI, KY, KS, MO
3436	Full	Full	No	FL, MN, NC, NY, OH, WA, OR, ID, MT, TX, WI
1281	Full	Some	No	MD
2200	Full	None	No	VT
3729	Limited	Full	Limited	CA
14276	Limited	Limited	No	CO

# Collecting Historical Data

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- **Beggars can't be choosers**
  - Excel spreadsheets of all kinds
  - Access databases with various schemas
  - Audit and simulation software input files
  - PDFs of utility bills

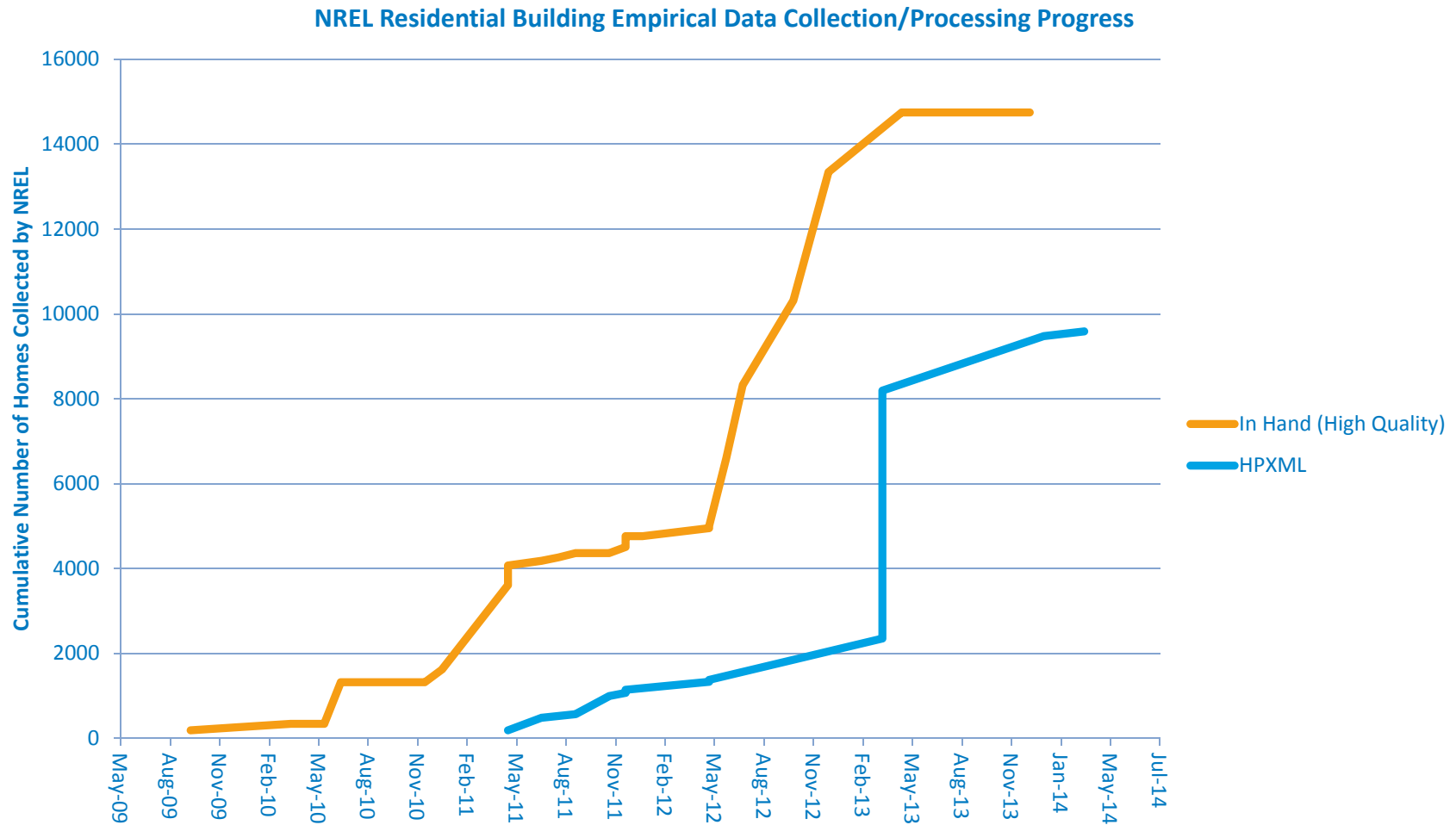


# How to standardize the format?

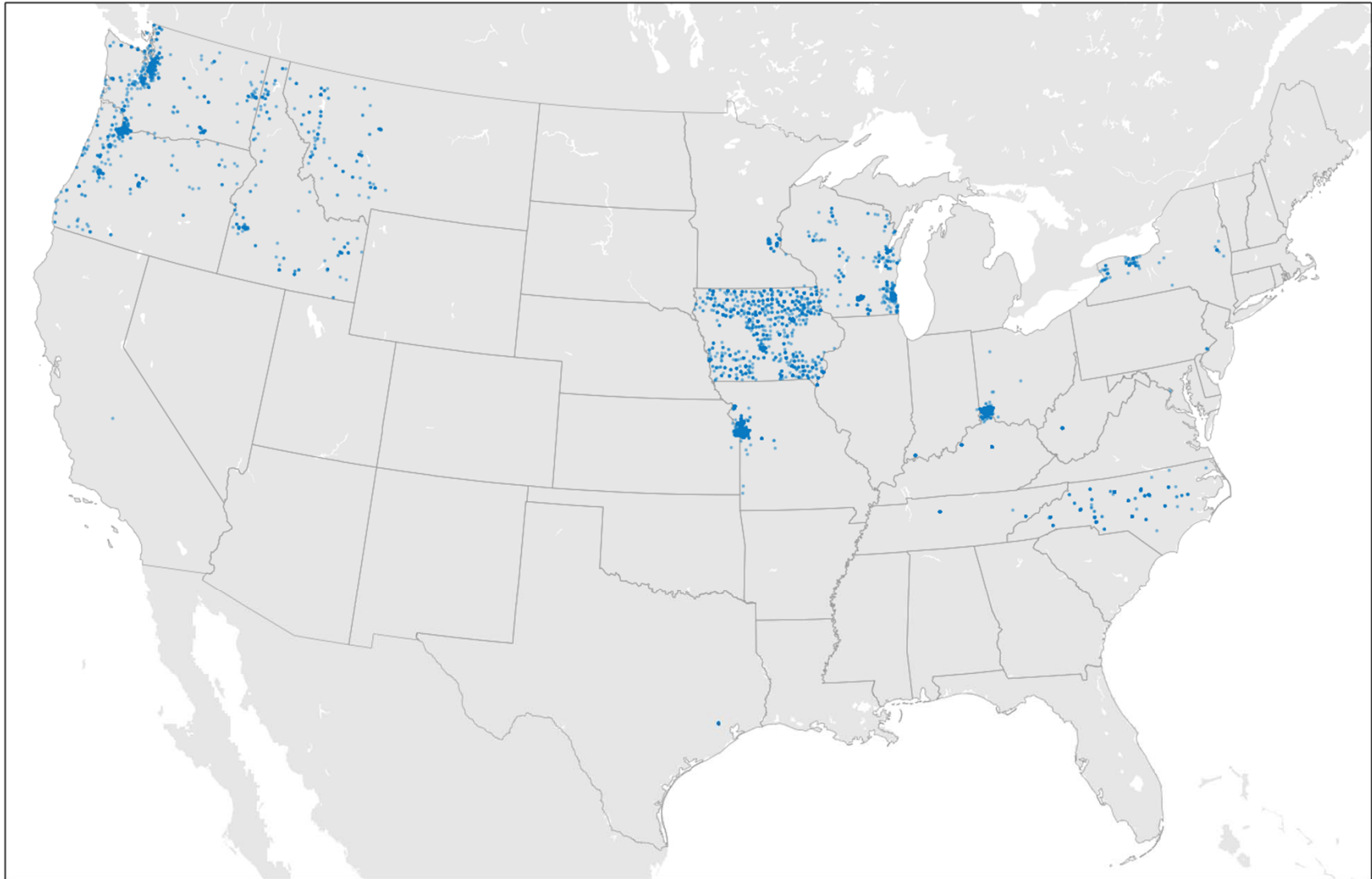
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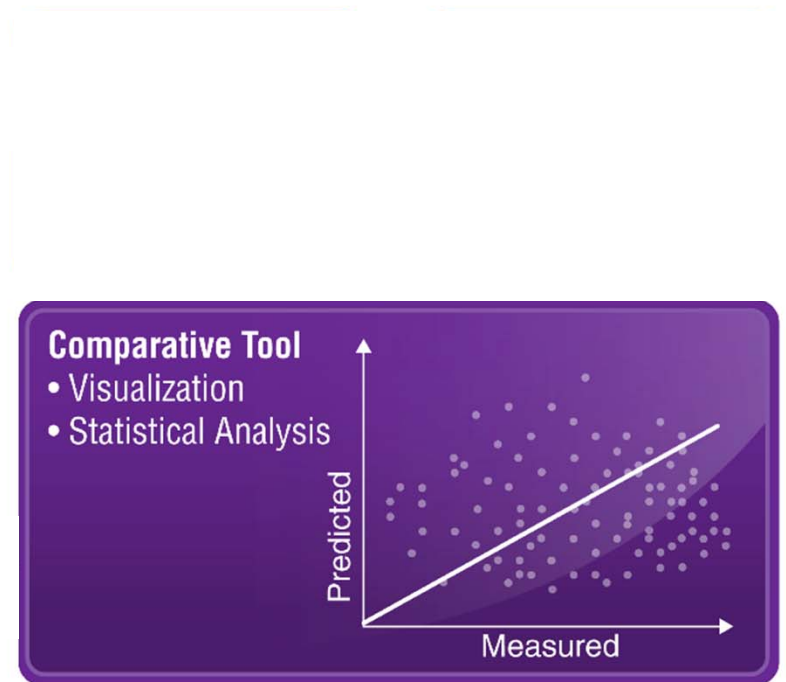
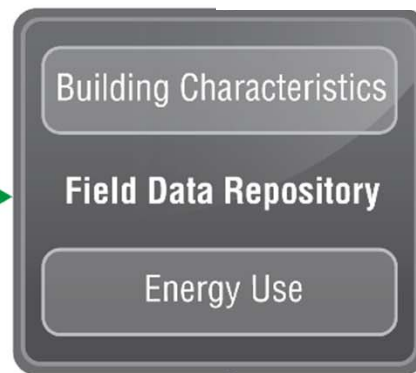
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# Standardizing the Format



# Map of BAFDR





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- **If you have data, let's talk**

- [noel.merket@nrel.gov](mailto:noel.merket@nrel.gov)

- **Information on HPXML**

- Website: <http://www.hpxmlonline.com>

- Technical Documentation (schemas):  
<https://hpxml.nrel.gov>