Why HPXML is Your New BFF

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Introductions

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<td>HPXML Primer</td>
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Why do we need standards?

Challenges:
• Lots of languages
• Lots of translators
• Complex topics
• Vested interests

Requires:
• Bureaucracy
• Administrative overhead

Results:
• Inefficiencies
• Misunderstandings
Why Building Performance Needs Standards

**Overhead**
- Duplicative data entry
- Error-prone
- Hunting for data in multiple places

**Time-to-Rebate**
- QA/QC takes too long
- Accountability not always clear
- Confusion for customer

**Opaque Data**
- Project and rebate status
- Who did what, when?
- Squishy performance metrics
# Agenda

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WTF is HPXML?

Home Performance EXtensible Markup Language

Standardizes:

- Data collected during in-home audit
- How the data is transmitted to other stakeholders
<table>
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<th>Programs</th>
<th>Contractors</th>
<th>Audit Vendors</th>
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<td>• Out-of-the-box integration</td>
<td>• “One and done” data entry</td>
<td>• Avoids expensive, one-off integrations</td>
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<td>• Lowers cost, reduces risk of painful integration</td>
<td>• Reduces contractor time and expense</td>
<td>• Reduce adoption risk</td>
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<td>• Improves trade ally experience</td>
<td>• Makes programs more business-friendly</td>
<td>• One-to-many program compatibility</td>
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Making it Real

EnergySavvy is working with HPXML pioneers

aps
leap
nyserda

Market Need
Advance quality, adoption, and support
Agenda

1. A Case for Standards
2. HXML Primer
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Home Performance (HP) XML
What is it?

- **BPI-2200** – Data dictionary of 800+ elements describing all aspects of home performance projects (e.g., energy audit, measures installed, energy savings, etc.)

- **BPI-2100 or HPXML** – Extensible mark-up language (XML) standard for transferring data elements defined in BPI-2200
Home Performance (HP) XML
What is it?

- Created by collaboration of 80+ stakeholders (BPI-WG-5) over working 3 years
  - Contractors, state and federal governmental agencies, utilities, program administrators, contractors, software developers, nonprofit organizations

- Aligned with DOE data standards

- BPI-2100 and 2200 approved as BPI Standards in July 2013
Why use the BPI data standards?

- Reduce transactional costs
- Clearer communication
- Reduce data entry
- More software options
- Streamlined customer approval process
- Long-term research and analysis
- EM&V
Next Steps

- Standard data sets for specific use cases
- Outreach and education
- Recruitment of new programs to implement
- Continued alignment with DOE (BEDES)
- Detailed HVAC and finance data elements
- Alignment with other software developers
More Information

- Visit www.nhpci.org for more information

- Standards available for download at:
  - https://hpxml.nrel.gov/wiki/Download