NZE Homes – What the customer wants
ROCKY MOUNTAIN INSTITUTE
Jacob Corvidae | April 18, 2018 | Getting to Zero Forum

Transforming global energy use to create a clean, prosperous, and secure low-carbon future.
2 Topics

The Consumer Connection
The 3i Pathway - Who do consumers trust at what stage of the process?

NZE Cost Thresholds
What cost thresholds matter to consumers, and where can the industry meet those?
The 3i Pathway

**INTEREST**
Spark interest in the technology

**INFORM**
Inform the customer about the technology

**IMPLEMENT**
Implement the upgrade

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**The 3i Pathway – For home purchase**

**INTEREST**
1. Family / Friends (41%)
2. Contractor (15%)
3. Company Salesperson (14%)

**INFORM**
1. Contractor (31%)
2. Utility (20%)
3. Family / Friends (15%)
4. Home Inspector (14%)

**IMPLEMENT**
1. Contractor (84%)

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**INTEREST**
1. Family / Friends (33%)
2. Contractor (22%)
3. Utility (18%)

**INFORM**
1. Contractor (30%)
2. Utility (19%)
3. Inspector & Co. Salesperson (13% each)

**IMPLEMENT**
1. Contractor (82%)
The 3i Pathway – for New Construction

**INTEREST**
1. Family / Friends (26%)
2. Contractor (24%)
3. Company Salesperson (18%)

**INFORM**
1. Contractor (34%)
2. Utility (22%)
3. Home Inspector (15%)

**IMPLEMENT**
1. Contractor (90%)

Finance Preferences
(when building or buying a new home)

1. **Cash or savings**
2. On Bill Financing
3. PACE (Property Assessed Clean Energy) Financing
4. Credit Card (with intention to pay off immediately)
5. HELOC (home equity line of credit)
6. Loan
Full Report

The Consumer Connection:
A Consumer-Centric Approach to Delivering Home Energy Services

To be released in April, 2018

NZE COST THRESHOLDS

What cost thresholds matter to consumers, and where can the industry can meet those?
Cost Thresholds: What Will the Market Bear?

- **Mortgage Threshold:** 30 yr.
  - Total cost of home ownership equal to standard efficiency home over life of mortgage

- **Resale Threshold:** 6 yr.
  - Total cost of home ownership equal to standard efficiency home over typical length of homeownership (6 years)

- **Consumer Appetite:** 4%
  - NZE first cost premium is at or below the range customers are willing to pay (4% incremental cost)

- **First Cost Threshold:** 0 yr.
  - NZE has no first cost premium

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Which Cost Thresholds Have NZE Homes Already Crossed?

Preliminary Results for Atlanta, Georgia:
Incremental Cost for NZE: $18,500

- **Mortgage Threshold:** 30 yr.
  - Threshold Value: $32,200
  - ✔️

- **Resale Threshold:** 6 yr.
  - Threshold Value: $8,900
  - ❌

- **Consumer Appetite:** 4%
  - Threshold Value: $10,400
  - ❌

- **First Cost Threshold:** 0 yr.
  - Threshold Value: $0
  - ❌
Which Cost Thresholds Have NZE-Ready Homes Already Crossed?

Preliminary Results for Atlanta, Georgia:
Incremental Cost for NZE-Ready: $2,700

<table>
<thead>
<tr>
<th>Threshold</th>
<th>Value</th>
<th>Timeframe</th>
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<tbody>
<tr>
<td>Mortgage</td>
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<tr>
<td>Resale</td>
<td>$3,200</td>
<td>6 yr.</td>
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<td>Consumer Appetite</td>
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<td>4%</td>
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<tr>
<td>First Cost</td>
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<td>0 yr.</td>
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Preliminary Results: Low Incremental Cost for NZE Homes

HOW MUCH MORE EXPENSIVE ARE NZE HOMES?
Preliminary Results: Low Incremental Cost for NZE-Ready Homes

How much more expensive are NZE homes?

NZE Builder Insights
Costs today

2-10%

Barriers

Customer Acquisition  Energy Visibility  Mortgage Inclusion
Labor Changes = New Opportunities

- **64%**
  - Of builders experience subcontractor labor shortages.

- **72%**
  - Of builders have trouble completing a project on time.

- **72%**
  - Of builders are raising home prices.

- **35%**
  - Of builders turning down some projects.

Less Risky
Questions?

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