Trends in Green Remodeling

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Research Questions

- Which green remodeling projects are growing in popularity?
- What type of firms do green remodeling projects?
Products in JCHS Green Remodeling Survey

**PATH Remodeling Top 10**
1. Air Sealing
2. Smartvent Ventilation/Ventilation Control Systems
3. HVAC Sizing - Right-sized HVAC
4. High Efficiency Toilets
5. Compact Fluorescent Lighting
6. High Performance Windows/Storm Windows
7. Wireless Lighting, Thermostats, and Other Controls
8. Solar Hot Water
9. Recycled/Renewable Flooring
10. Tubular Skylights

**Additional products**
- Low-/No-VOC Paints, Finishes, and Adhesives
- Tankless Water Heaters
- Mold Resistant Gypsum Panels
- Engineered Wood Wall Framing
- Fiber Cement Siding
- Structural Insulated Panels (SIPs)
- Radiant Floor Heating
- Photovoltaic Systems
- Concrete Aggregate Substitutes
- Green Roof Systems
Increasing Adoption Across All Technologies

Adoption Index, 2011:Q1

Compact Fluorescent Lights
Low- or No-VOC Paints
High Performance Glazed Windows
High Efficiency Toilets
Most Efficient Sizing of HVAC System
Alternative Insulation Materials
Mold Resistant Gypsum Panel Products
Flooring from Rapidly-Renewable Species
Tankless Water Heaters
MEDIAN
Fiber Cement Siding
Centralized Automatic Lighting Controls
Structural Insulated Panels (SIPs)
Radiant Floor Heating
Engineered Wood for Wall Framing
Flooring from Recycled Wood
Wireless Thermostats
Tubular Skylights

Notes: The adoption index for each product is calculated as: the share of respondents indicating increasing usage, plus half the share indicating the same level of usage. Products with low responses (<30) were excluded.
Technologies Focused on Energy Conservation have Largest Gains in Adoption

Projects with the largest increase in adoption index. Year-over-year change in adoption index for Q1, 2010-11.

Larger Firms Do More Green Remodeling

Share of projects in which energy efficiency and environmental sustainable projects were installed, average across all respondents

Steadying Share of Firms Have Worked on Projects Eligible for Federal Energy Tax Credits

Share of respondents who have worked on an energy tax credit project, which include building envelope\(^1\), HVAC system\(^2\), and renewable energy\(^3\) projects

<table>
<thead>
<tr>
<th>Year</th>
<th>Building envelope(^1)</th>
<th>HVAC upgrades/replacement(^2)</th>
<th>Renewable energy systems(^3)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2009:Q3</td>
<td>39.3%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2010:Q1</td>
<td>51.8%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2010:Q3</td>
<td>58.1%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2011:Q1</td>
<td>58.5%</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

\(^1\)Building envelope projects includes insulation, windows, doors, and roofing.
\(^2\)HVAC systems includes heaters, furnaces, boilers, and air conditioners.
\(^3\)Renewable energy systems includes solar, wind, geothermal, and fuel cell technologies.

Companies that do Large Projects are More Likely to do Tax Credit Projects

Share of firms that have worked on an energy tax credit project in the last year, 2011:Q1

- Under $5k: 43%
- $5k-10k: 54%
- $10k-25k: 64%
- $25-50k: 67%
- $50k+: 67%
- Average: 58%

Source: JCHS National Green Remodeling Surveys, 2011:Q1