

Adding Insulation when Air Sealing (AIRS)

Project Background

The process of removing old siding and replacing with new is the perfect time to add exterior continuous insulation and air seal. One inch of rigid insulating sheathing, taped and detailed to act as the air and water barrier, typically...

- Improves thermal & moisture performance of walls
- Allows for the use of off-the-shelf trim and moldings
- Maintains most siding warranties
- Increases occupant comfort (temperature and noise)

PNNL has been funded by the U.S. Department of Energy (DOE) to perform up to 70 of these energy upgrades in the Mixed-Humid climate zone for qualifying homeowners at no cost to them – an average value of about \$4,000 per house. We're looking for contractor partners who want to get a foot in the door on this exciting new opportunity. A primary project outcome for PNNL will be educational and informational materials that provide accurate, descriptive, and compelling performance data, installation guidance, and real-world examples of the advantages of this type of energy upgrade, based on professional feedback from re-siding contractors.

See <https://www.pnnl.gov/projects/re-siding-ext-insulation> for more info.

*Why the **Mixed Humid** climate zone?*

- Accounts for **30% of housing stock** that can benefit from these upgrades
- Investment metrics are **excellent**
- Energy savings of **~12 - 20%**
- Payback period of **7 - 13 years**
- **Positive** Net Present Values

Contractor Participation

Benefits:

- Additional work, paid for by the project
- Installation guidance for the energy upgrade
- Collaboration with building scientists and manufacturing leaders
- Case study information (photos and testimonials) for your own future marketing efforts

Expectations:

1. Present an informational PNNL flyer to qualifying homeowners who have already accepted your re-siding bid. This material describes the energy upgrade and the research, and includes PNNL contact information if the homeowner wants more information or to sign up for the study,
2. If the homeowner chooses to participate, modify the homeowner's scope-of-work to add insulation and air sealing to the standard re-siding project,
3. Work with PNNL and the advisory group to refine installation methods for the energy upgrade and prepare your crew for the added scope,
4. Source, purchase, store, transport, and install the upgrade materials; request support from PNNL research team as necessary; use the methods developed in collaboration with PNNL and the advisory group,
5. Provide detailed invoices to PNNL for the additional cost of the energy upgrade for each house,
6. Share insights and learnings, participate in pre- and post- study interviews.
7. Provide 3 to 12 "Insulating Upon Re-Siding" projects this year (2022) and a similar number next year (2023).

PNNL will:

- Provide bldg. science and installation support to contractors
- Promptly pay invoices
- Protect the privacy of homeowners

PNNL will not:

- Interfere in the contractor / homeowner relationship

For more information on the project, or to express interest in participating, please contact:

Tabitha Artuso at tabitha.artuso@pnnl.gov

Patti Gunderson at patricia.gunderson@pnnl.gov