

Market Research & Momentum Savings Team

Quarterly Call | November 3, 2021

Bonneville
POWER ADMINISTRATION



Org Name
+
Favorite candy bar



Weatherization Market Research Findings

A look at the total Northwest market
beyond programs

NOVEMBER 3, 2021



Why do we care about Wx?



**Customer
service**



**Valuable
EE
resources**



Resilience

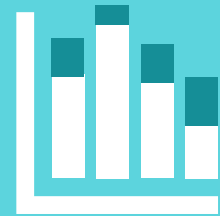
Why characterize the Wx market?



**Supplement stock
assessments**



**Help programs be
most effective**



**Input to Residential
HVAC Market Model**

Overview of Research



Data Sources

RBSAs – Audited stock data

Principia – Single family
insulation sales data

RCP – Reported Wx
program savings

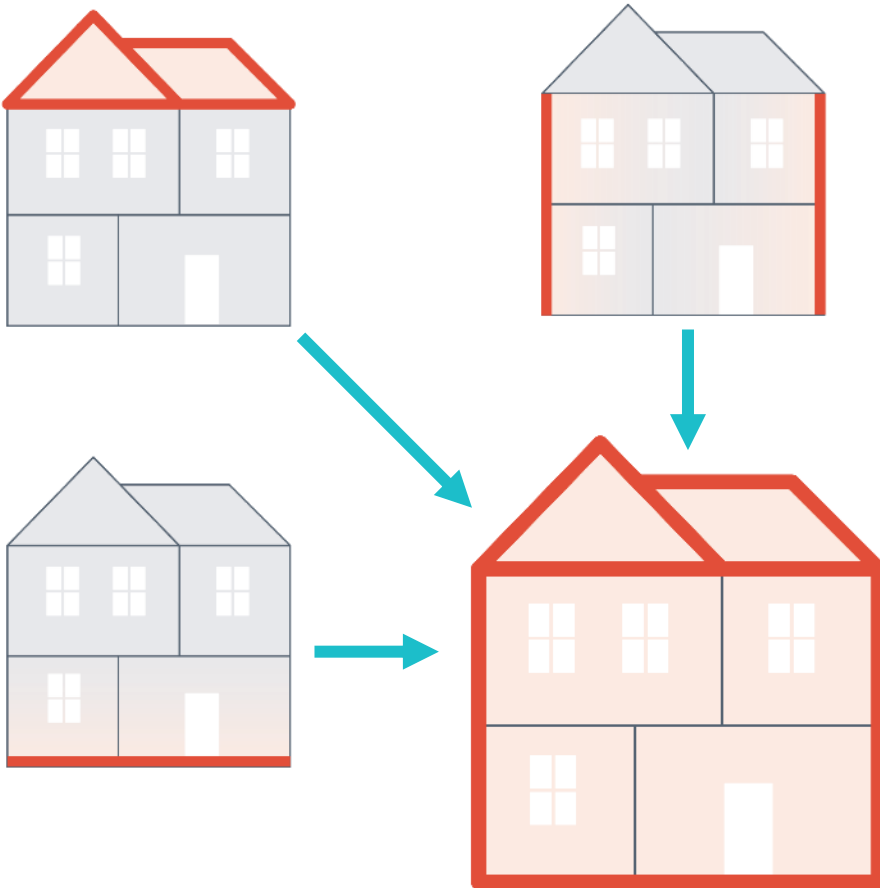
Combined data
sources to build the
most **robust
quantitative estimate**
of weatherization
activity in 2016-2021

Plus... a big installer survey



- **61** insulation installers in all **4** Northwest states
- Represents over **16,000** jobs performed in 2019
- **Regionally representative** findings on common installation practices and market conditions

A note on data



**Unit = Normalized
Number of Homes
Fully Weatherized**

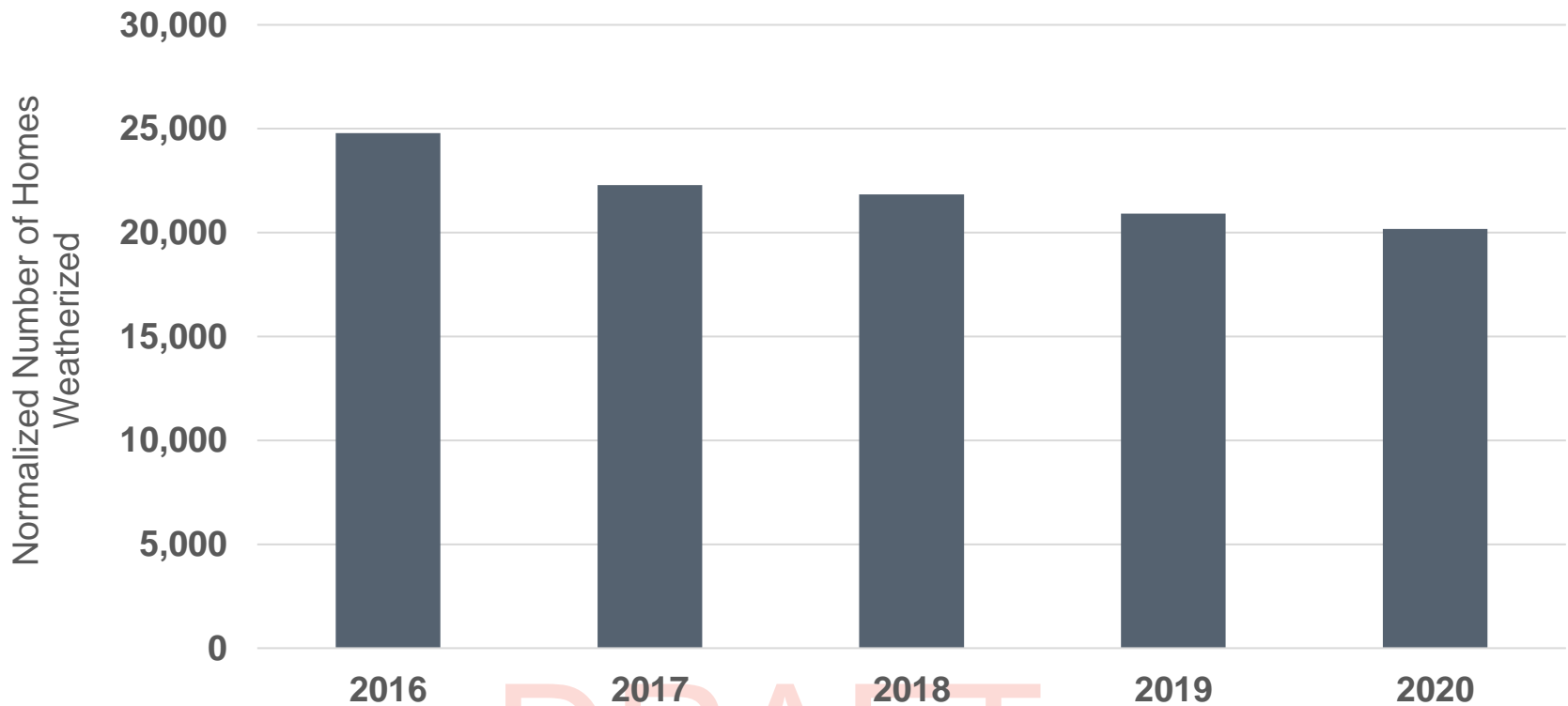
*Captures shell
improvement from a
baseline home to a
fully upgraded home*



Weatherization Market Findings

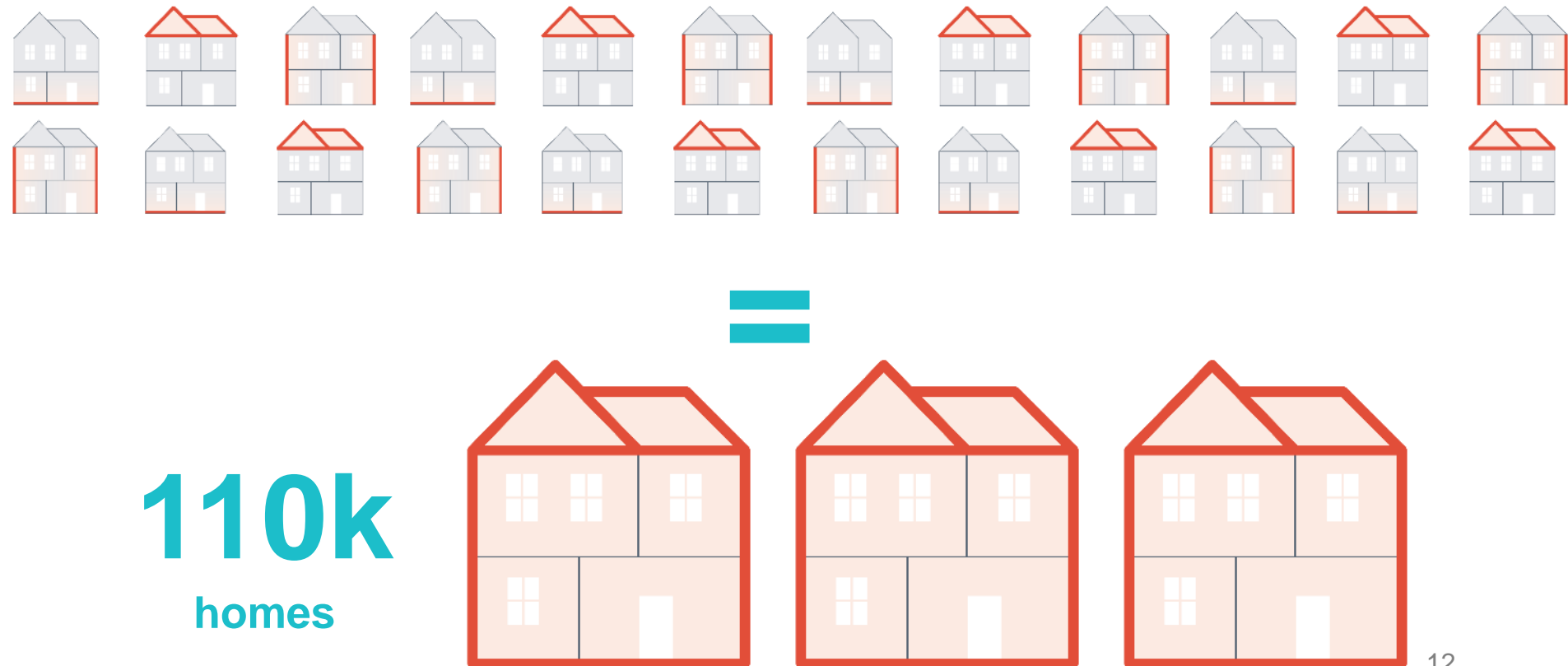
Wx activity is steady

Total Wx market activity upgrades a significant portion of the region each year



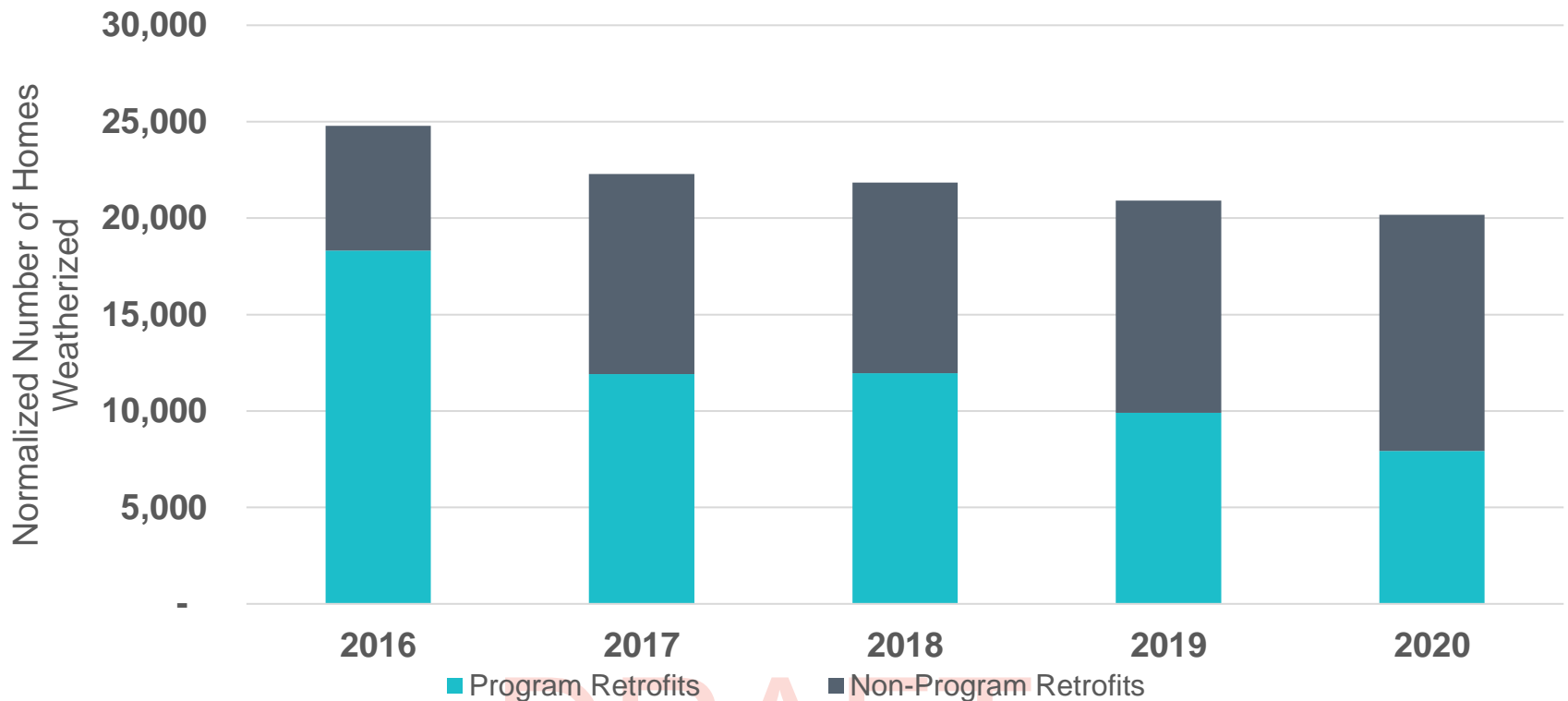
What impact does that activity have in the region?

Market activity upgraded the equivalent of ~110,000 “fully weatherized” homes between 2016-2020



40% of Wx jobs participate in EE programs

Programs' share of Wx activity has decreased over time.



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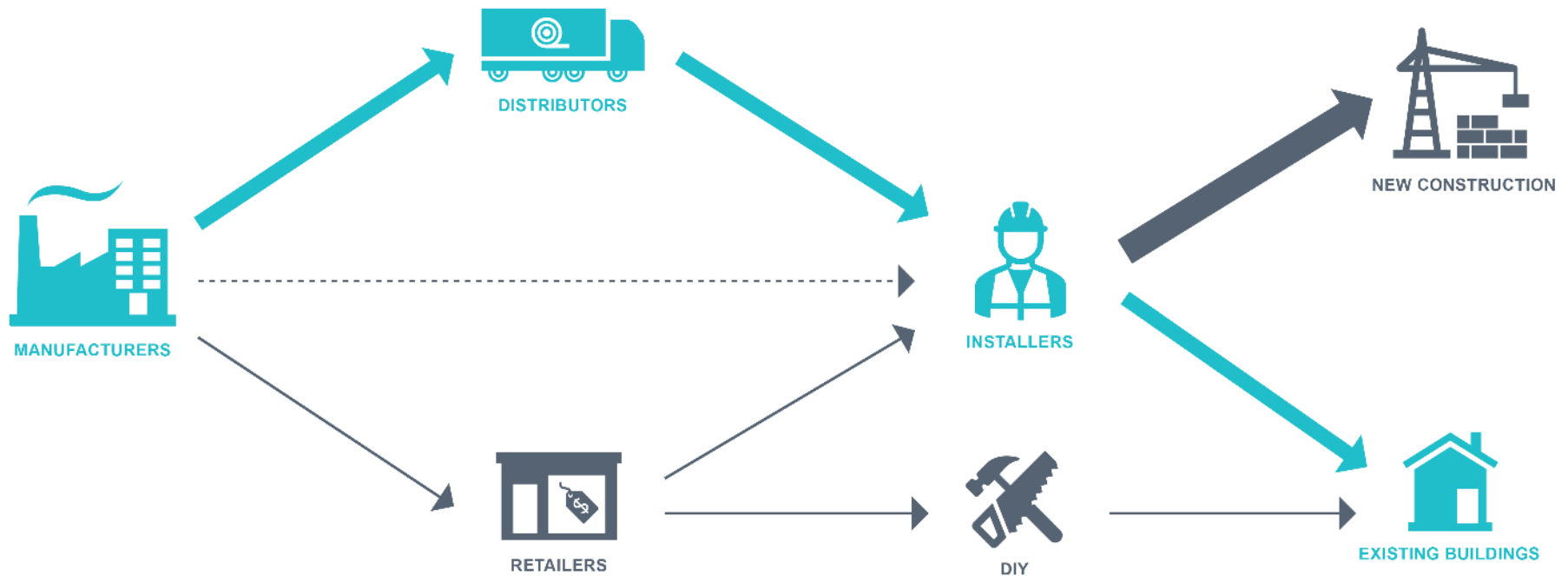


Single Family Insulation

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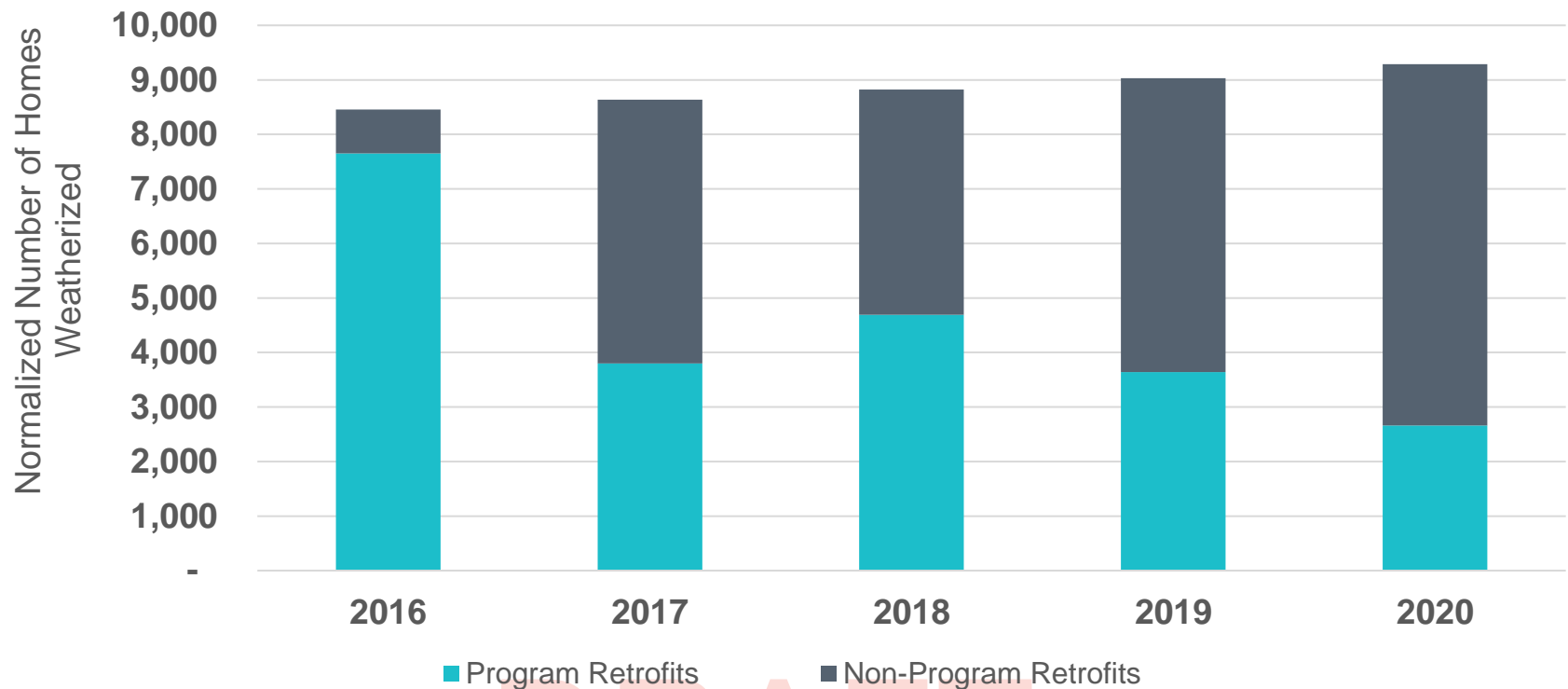
Insulation supply chain

For retrofits, insulation primarily travels to market through distributors and professional installers.



SF insulation market is steady, program portion declining

Insulation activity in existing SF homes is increasing slightly over time, even though fewer projects participate in programs.



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Installation practices between program vs. non-program jobs



1/2

of installers said they use
same installation practices
for non-program work

**Program-quality jobs may have
higher impact in terms of:**

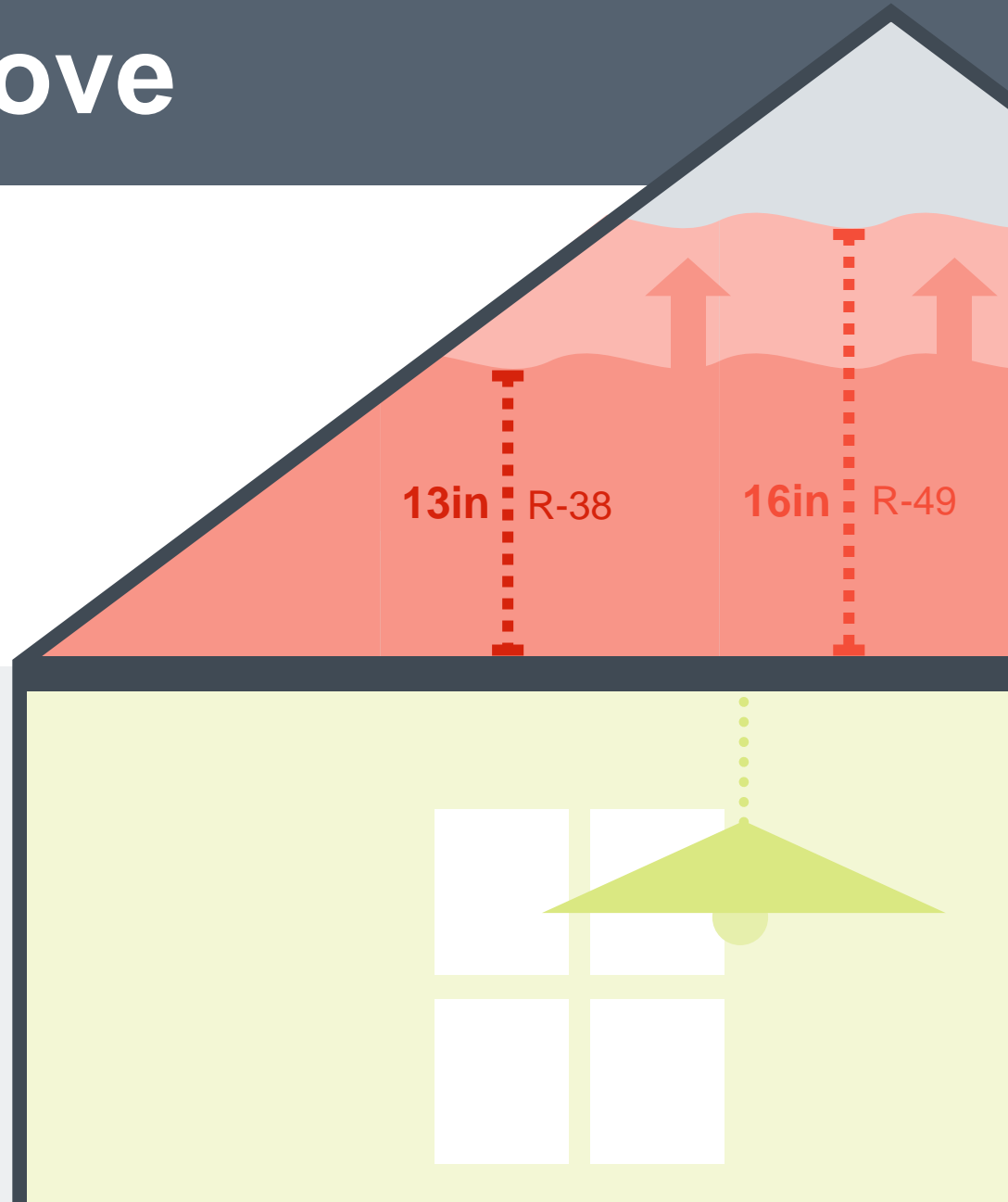
- Air sealing and ventilation
- Duct sealing requirements
- Specific qualifying R-values

Attic insulation R-values improve

R - 49

Typical target for attic insulation

80% of attic insulation is installed to **R-49**, a significant improvement in standard practice.



Spillover effect from retrofits



60%

of installers said it's
“common” to install insulation
beyond permitted area

Many non-program retrofits
are associated with a remodel,
but insulation often extends
beyond permit requirements.

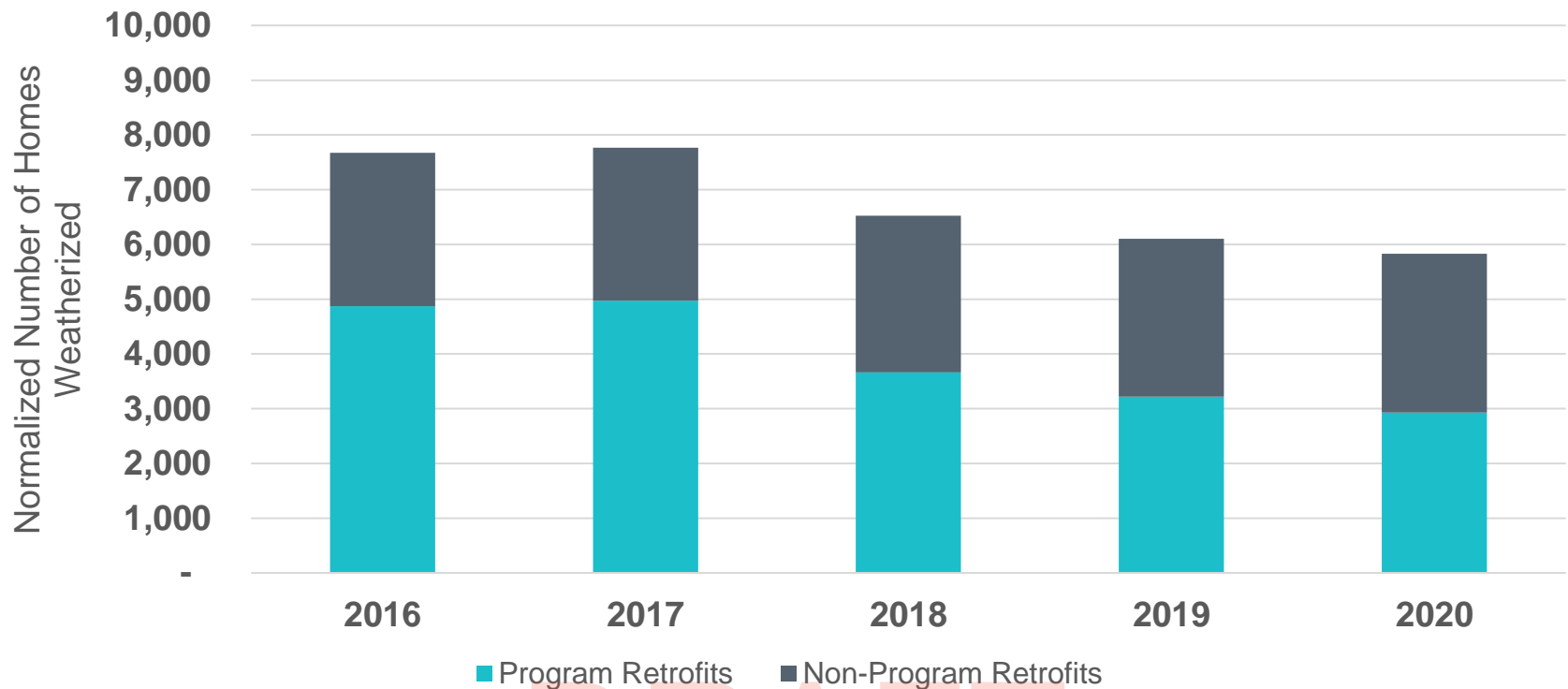


Windows and Air Sealing

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Efficient windows trending downward

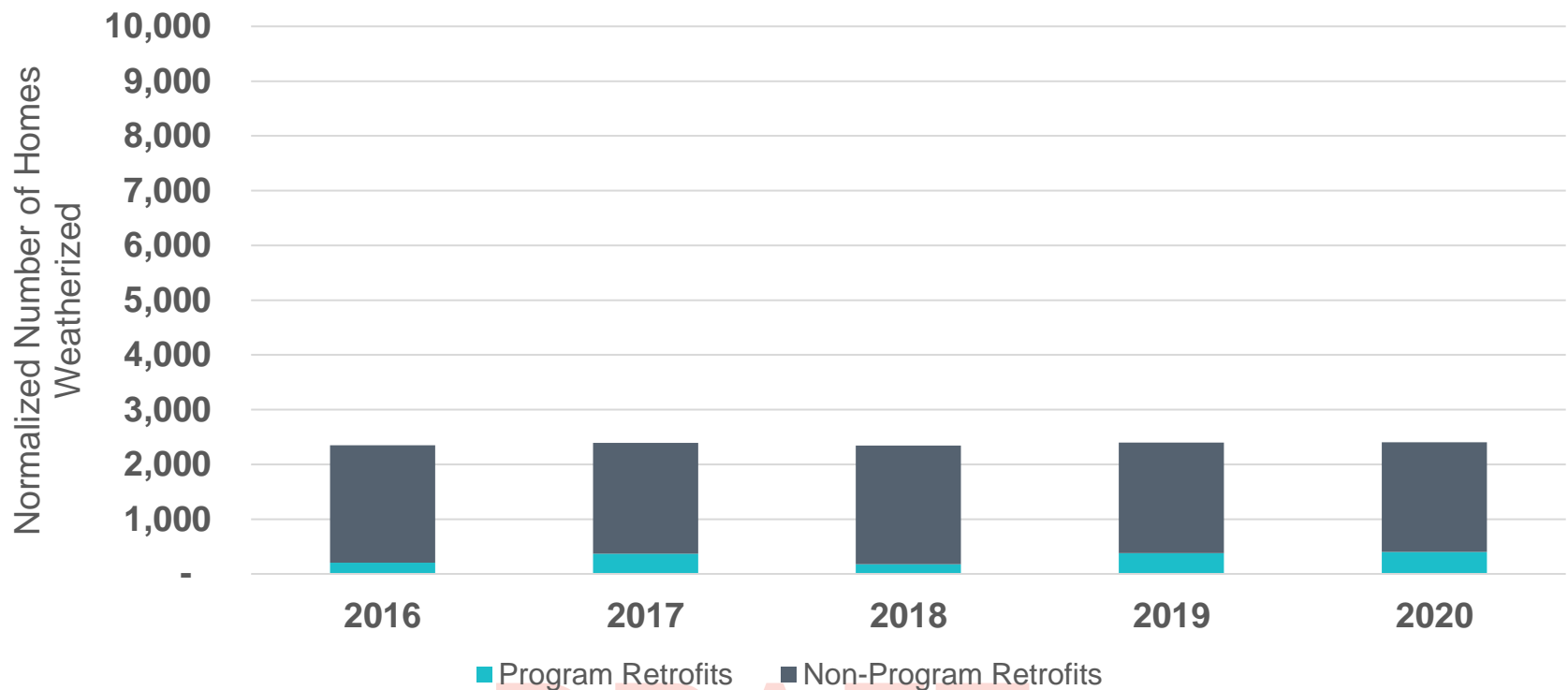
RBSA data indicates 3/4 of SF homes have efficient windows in 2016, indicating a smaller remaining potential



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Air sealing occurs outside of programs

Air leakage reductions are common and easy to do.



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Air sealing practices

80%

of insulation contractors offer air sealing services

15%

of projects use diagnostic equipment

Most contractors are capable of offering air sealing services, but may need help selling customers on benefits or participating in programs.

Wrap Up

Key Takeaways



Wx market is steadily improving shell quality of homes in the region.



Common installation practices are aligning with code and programs.



There's more to be done!



Research will help BPA target the Comfort Ready Home program's strategy to grow the weatherization market

Discussion



Contact

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