



Opinion Dynamics

DESIGN STRATEGIES NEEDED TO SCALE RESIDENTIAL DECARBONIZATION PROGRAMS

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GETTING TO ZERO CONFERENCE

MAY 10, 2023



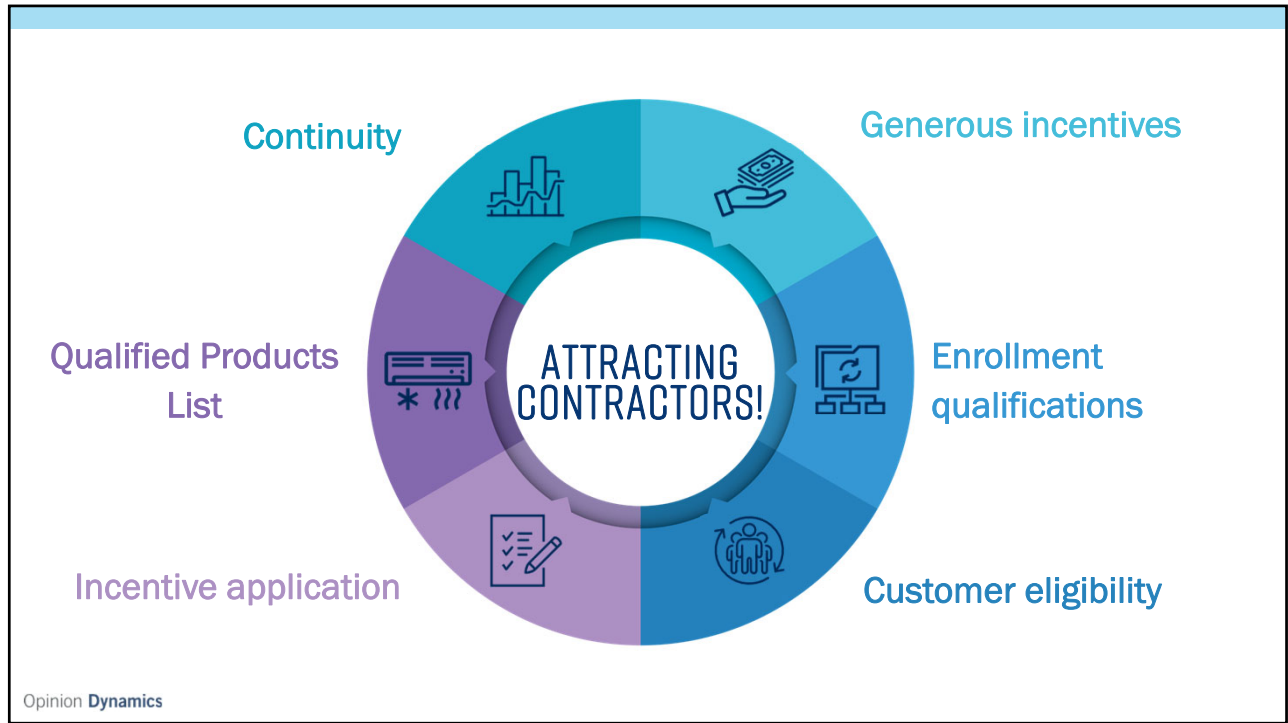
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INTRODUCTION

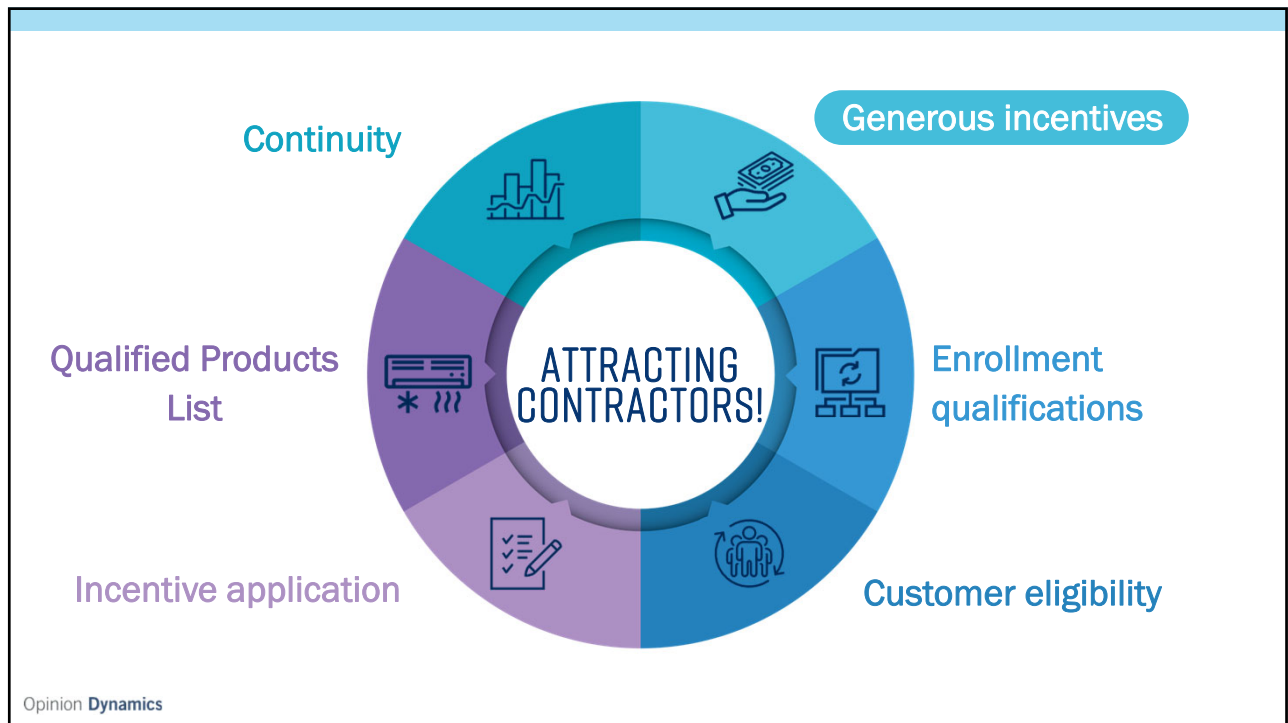
- Heat pumps are the equipment of choice for decarbonization
- Growing customer awareness and interest in heat pumps
- Shortage of trained workforce
- Utility programs can help
 - Workforce
 - Consumer education
 - Equity issues



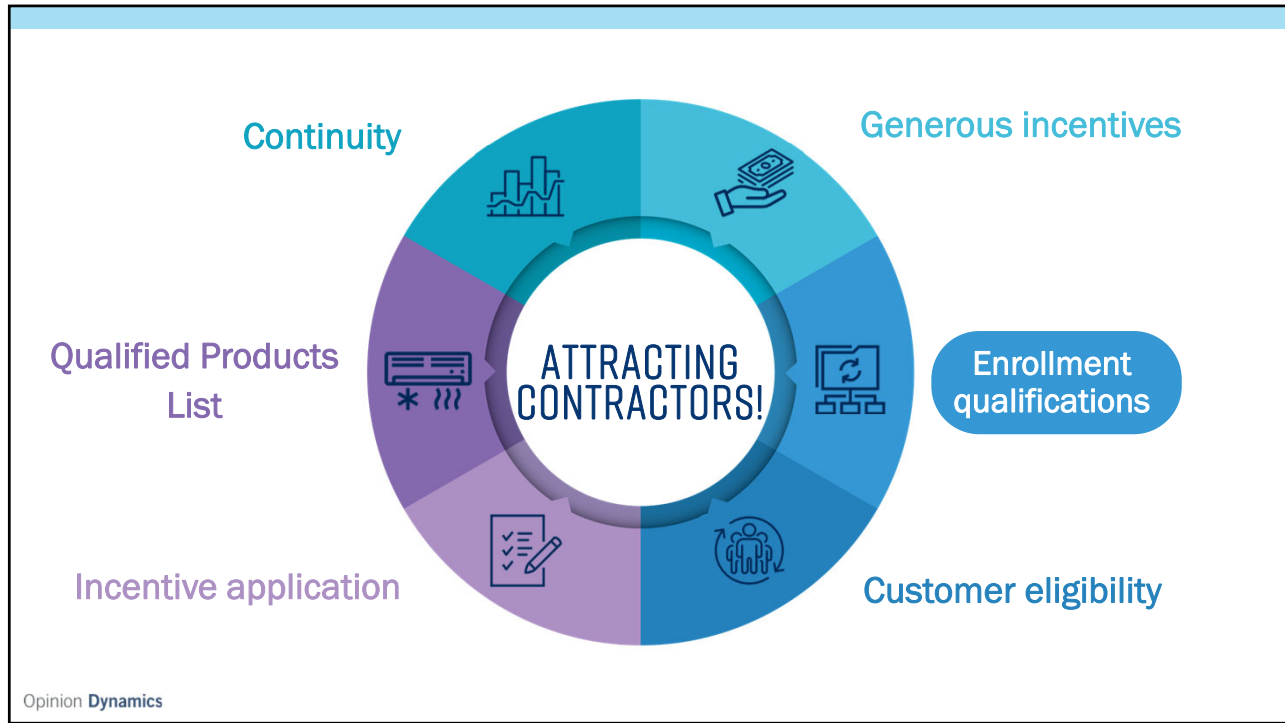
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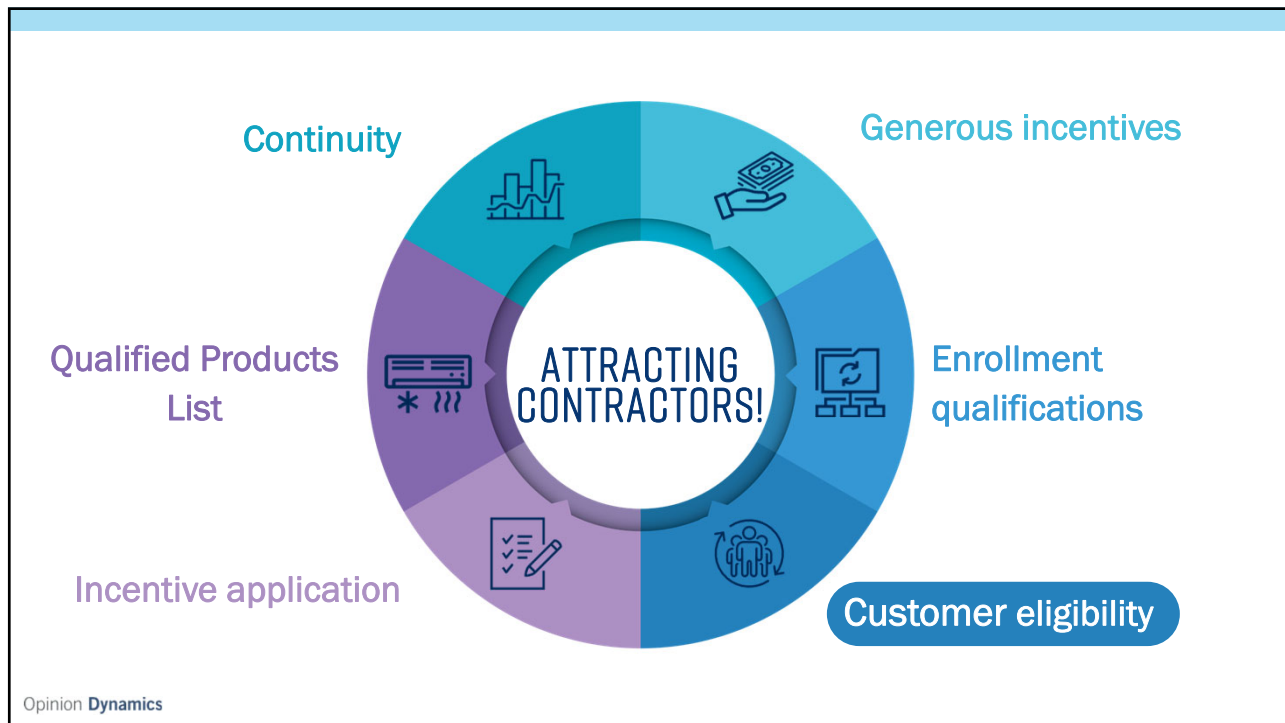
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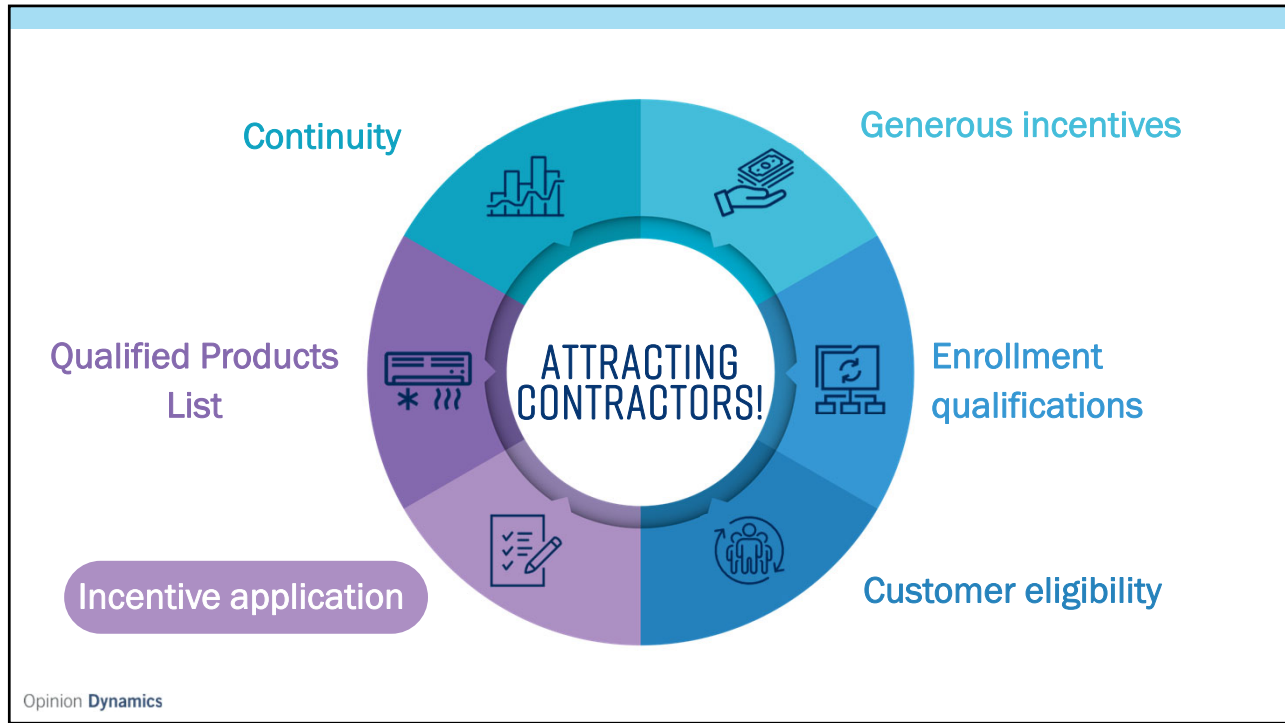
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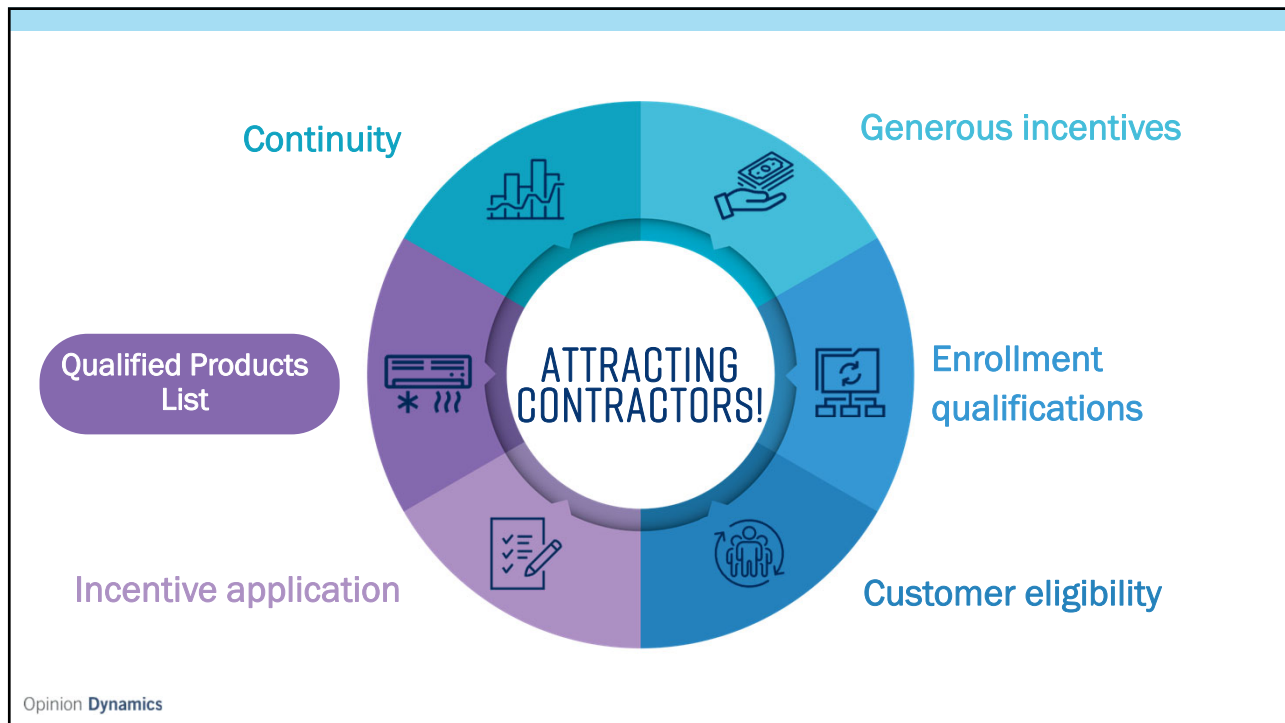
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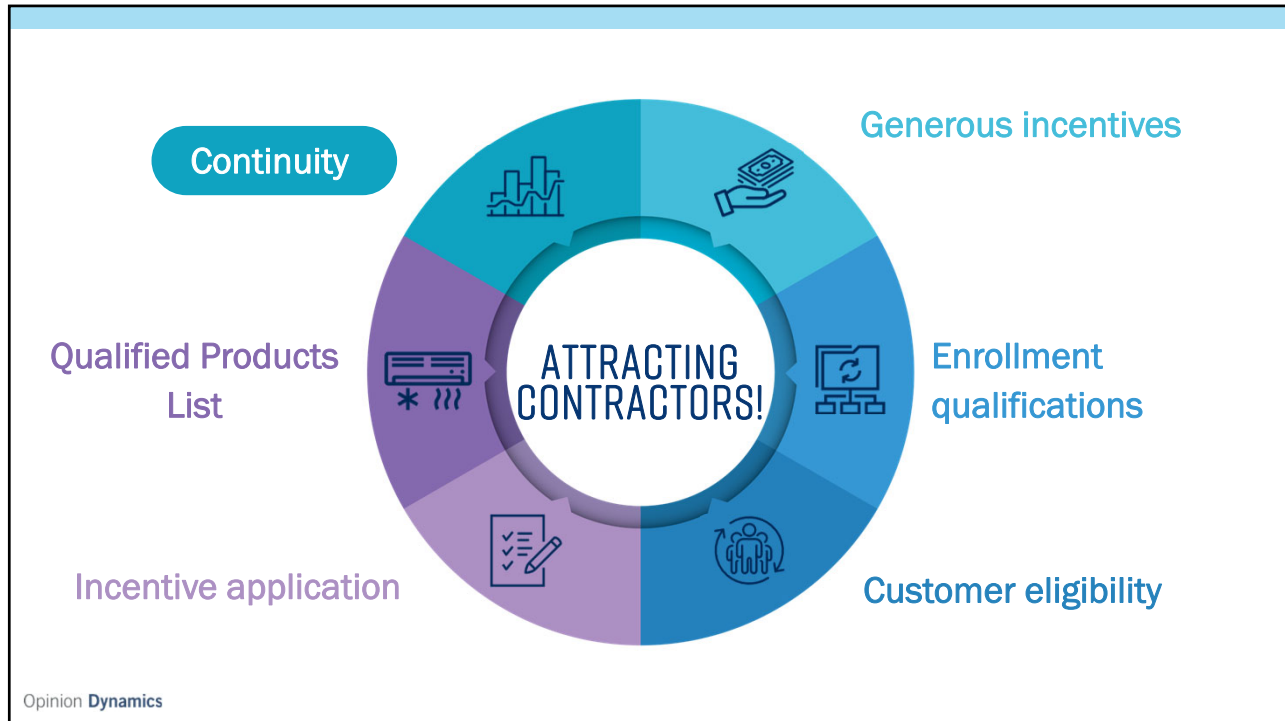
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CONTRACTOR TRAINING NEEDS

<p>TECHNICAL</p> 	<ul style="list-style-type: none"> ▪ Heat pump requirements ▪ Sizing and load calculations ▪ Refrigerant management ▪ Troubleshooting
<p>CUSTOMER-FACING</p> 	<ul style="list-style-type: none"> ▪ Ability to explain how heat pumps work ▪ Prepared to discuss costs ▪ Understand benefits of electrification ▪ Tie it to the bigger picture

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CUSTOMER VALUE PROPOSITIONS

- Heat pumps are....
 - Better for the environment
 - Particularly for those with solar
 - Better for their pocketbook
 - Depends upon baseline (AC, rates)
 - Better for their home
 - Comfort, safety, IAQ

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WHAT ABOUT EQUITY?

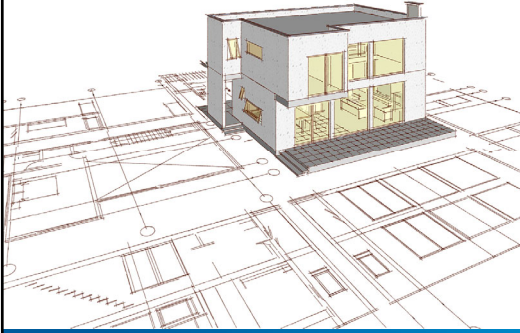
- In emerging heat pump markets, early adopters are predominant purchasers
- Utility programs will likely need equity goals if they want low-income customers to get heat pumps
 - Can partner with other programs
 - Can target multifamily, landlords
 - Not easy



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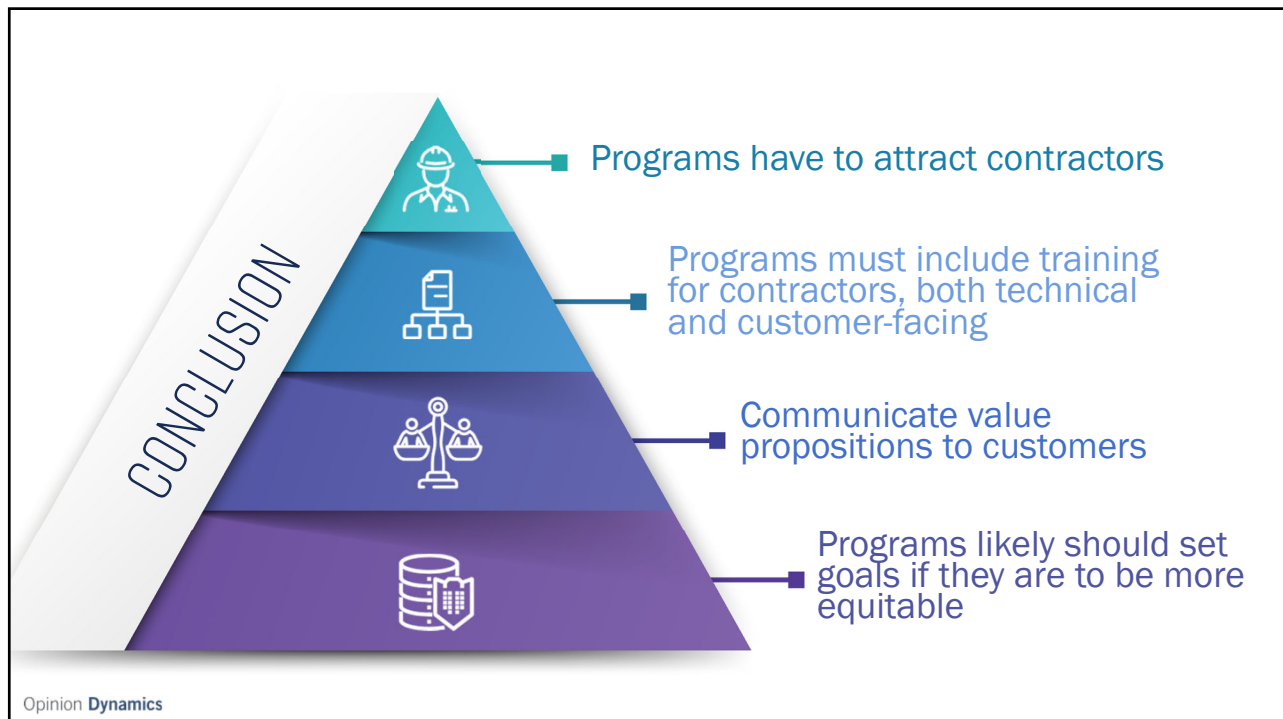
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New Construction Program Example: Tenant Bill Calculator




- Program requirement for 5% tenant bill savings to qualify for incentive
- Calculator tool with many assumptions (HSPF, R-values, CZ)
- Resulted in needing solar PV to offset increases in electric bills
- Imperfect, but good first step to ensure incentivized projects don't adversely affect tenant bills

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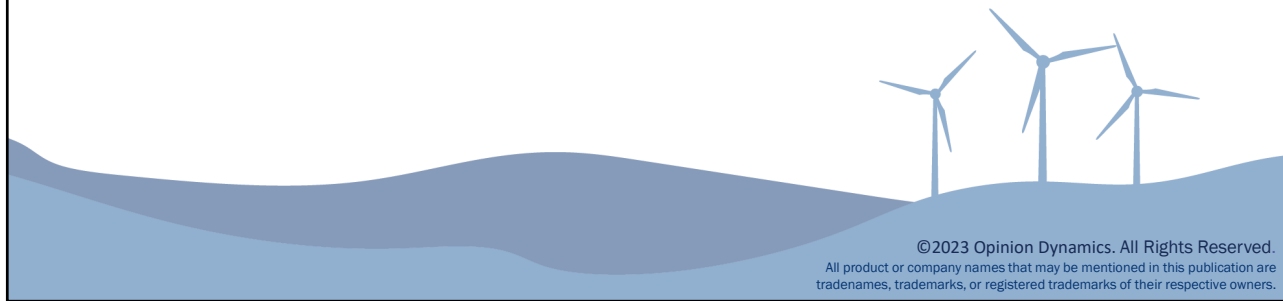


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