

# Cal TF Meeting\_2023-11-16\_PPT\_DRAFT.pptx

15 - 22 Nov 2023

Poll results

## Table of contents

- Icebreaker question: What are some key EE and/or GHG reduction tips for the Thanksgiving holiday?
- What can we do to reverse these trends? What are the solutions?
- Do you agree these trends are concerning?
- Do you agree these trends are concerning?
- What can we do to reverse these trends? What are the solutions?
- What other considerations are needed to make hybrid measures viable (e.g., to capture stranded savings)?
- Indicate your excitement level for each RESIDENTIAL Fuel Sub Measure
- Indicate your excitement level for each COMMERCIAL Fuel Sub Measure

## Icebreaker question: What are some key EE and/or GHG reduction tips for the Thanksgiving holiday?

0 1 0

- Eat the stuffings only, the rest is history
- A vegetarian meal saves water and energy.
- Eat less or go vegetarian. use LED candles powered by the solar charged batteries, play football instead of watching it
- Sushi
- Host so you don't have to travel.
- Someone needs to invent an induction oven for efficient turkey roasting.
- Compost your leftovers
- Eat so much you fall asleep 🥱
- Crash someone else's meal. Half the emissions!
- When deep-frying turkey, don't burn down the garage - not doing so will reduce ghg.
- I will eat multiple servings to make sure there is no food waste.

## What can we do to reverse these trends? What are the solutions?

0 1 5

(1/4)

- Develop an approved Custom Project Review process that starts after the project is installed, but not a year or two later...a "concurrent with post-install review" ex-ante review process.
- Policy drives our industry. Accordingly, cost effectiveness is unstable and unpredictable because ex post policies are affected and interpreted by decision makers who are not at the table to discuss programmatic and implementing concerns when the program starts or during the program cycle . This causes angst in the implementation marketplace where implementers have to shift the entire portfolio midcycle to make the program "cost effective."
- I believe we need to focus on custom projects, and make the NTG flexible based on influence, ISP etc.
- Remove policy barriers. Make it easier and less expensive to

## What can we do to reverse these trends? What are the solutions?

0 1 5

(2/4)

- develop new MPs. Reduce POE requirements. Eliminate ISP or establish better structure. Decrease review time. Make programs and statewide policies more customer focused to align with their needs.
- Programs are driven to focus on measures that produce the highest value which lends to a small number of measures being targeted. Data collection requirements and cost of processing impacts feasibility of measure offerings.
  - Pay more attention to savings potential.
  - Suggest new CPUC policy for rethinking NTG and free-ridership
  - Streamlined measure data collection
  - Continue to engage honestly with the data, the participation experience of customers, implementers and PAs, and approach changes with flexibility.
  - Correct the MLC standard practice baseline which is currently based on a

## What can we do to reverse these trends? What are the solutions?

0 1 5

(3/4)

database of fixtures (DLC) that contains only fixtures that exceed minimum code requirements. This skews the baseline to arbitrarily eliminate viable fixtures and it increases the cost of the approved fixtures without actually increasing savings.

- Combine CPUC reviews to one.
- There is a massive disconnect between P&G and reality. It does not take into account the difficulty in reaching goals beyond customer uptake (eg

burdensome ex ante processes, etc). Also the lighting one is very concerning (3%?!?! just assuming no AR for customers when there absolutely is

- Friendly environment for custom projects
- Disconnect with P&G study and CPUC's requirements to make them align, Need to make program limitations less extreme, so more measures can be claimed.
- Way too much concentration on a few

## What can we do to reverse these trends? What are the solutions?

0 1 5

(4/4)

“easy” measures. Clearly a lot of savings are left on the table due to the difficulty of getting other measures approved.

- I don't think the P&G study accounts for the hassle factor to participants. That may be one reason for the disconnect.

## Do you agree these trends are concerning?

0 2 4

Yes



No



Unsure





## Do you agree these trends are concerning?

007

Yes



No

0 %

Maybe/Unsure

0 %

## What can we do to reverse these trends? What are the solutions?

0 2 0

(1/4)

- Acknowledge that the current 0.5 Net-to-gross ratio already assumes a lot of free-ridership and therefore additional effort to strengthen the stringency of influence documentation is not needed.
- Keep utility account managers actively involved in the process. They have historically been the connection to large customers.
- Improve measure packages to reduce eligibility requirements and make it easier/ less costly to implement
- Addressing customer barriers to implementation and where policies can be improved to resolve those challenges.
- Major challenges for custom relate to influence, baseline selection, ISP, NTG impacts.
- Provide trainings for 3rd parties
- move custom programs to core PA programs instead of 3rd parties and have 3rd parties managing more streamlined programs
- There is a huge disconnect between the spirit and intent

## What can we do to reverse these trends? What are the solutions?

0 2 0

(2/4)

of decision language to achieve EE goals and what can realistically be performed by the implementers. ISP is not appropriate in many cases as customers using the performance based approach for code compliance would not have upgraded to certain lighting systems without tradeoffs for high performance windows as an example. But ISP would penalize the customer for having a different baseline than actual conditions.

- Cost and risk are two sides of the same coin in Custom. Requirements and review need to be simplified and streamlined.
- combine ex ante and expost review to 1, after install
- Remove policy barriers
- Policy to make custom project review easier.
- Lower Administrative cost
- \* re think the polices and process
- Consolidate Custom rules per CalTF recommendations. Apply the rules consistently.

## What can we do to reverse these trends? What are the solutions?

0 2 0

(3/4)

- Reverse the trend of making custom projects overcomplicated, requiring a research project's level of documentation, and reduce the number of "rules" that are found in dozens of different documents
- What is the relationship between this reduction and the migration of programs to third-party platforms?
- Make it easier to implement Custom Projects
- Very significant reforms to both the custom process are unquestionably needed. Ideally it would be replaced by an ex post process only as ex ante and ex post teams don't seem to communicate.
- Look at what has changed in the process of connecting customers to solutions.
- Market need more time to adopt to guidance
- Simplify programs, reduce number of programs, and reduce bureaucracy. Current rules for

## What can we do to reverse these trends? What are the solutions?

0 2 0

(4/4)

participation and claiming savings are more complex than the national tax code.

- Change policies from CPUC side.
- Perhaps the program goals were too optimistic for 2022, the first year for some of those programs.

## What other considerations are needed to make hybrid measures viable (e.g., to capture stranded savings)?

004

(1/2)

- Utilize approved site-specific data collection forms per each measure so that the process is consistent. Ensure granularity of data required is reasonable and not overly burdensome.
- Cost of customer acquisition , project admin & approvals need to be commensurate with size/value of project — with certainty for the customer, contractor. Delays waiting for approval kill momentum and opportunity — need preapprovals and certainty within specific eligibility parameter. If you meet these requirements and use this calculation, the project and rebate is approved.
- Easier to get approach in place quickly
- Streamline project submittal package requirements. Reduce burden of building out full customized PFS and

**What other considerations are needed to make hybrid measures viable (e.g., to capture stranded savings)?**

(2/2)

0 0 4

Installation Report. Ability to use canned templates with minimal critical site specific information.

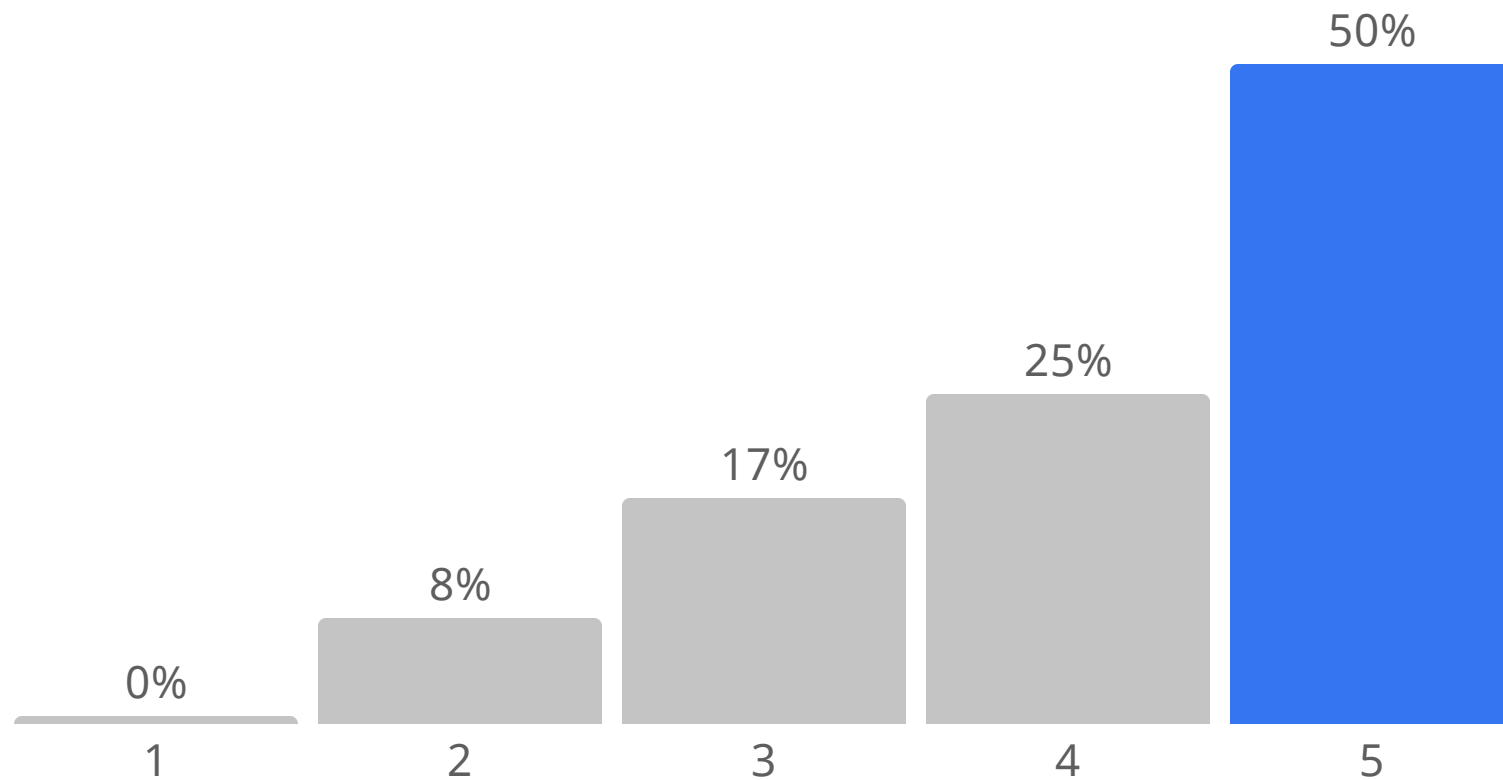
## Rating poll

Indicate your excitement level for each RESIDENTIAL Fuel Sub Measure (1/8)

0 2 4

### R1 Combination DHW + Space Heating Heat Pumps

Score: 4.2





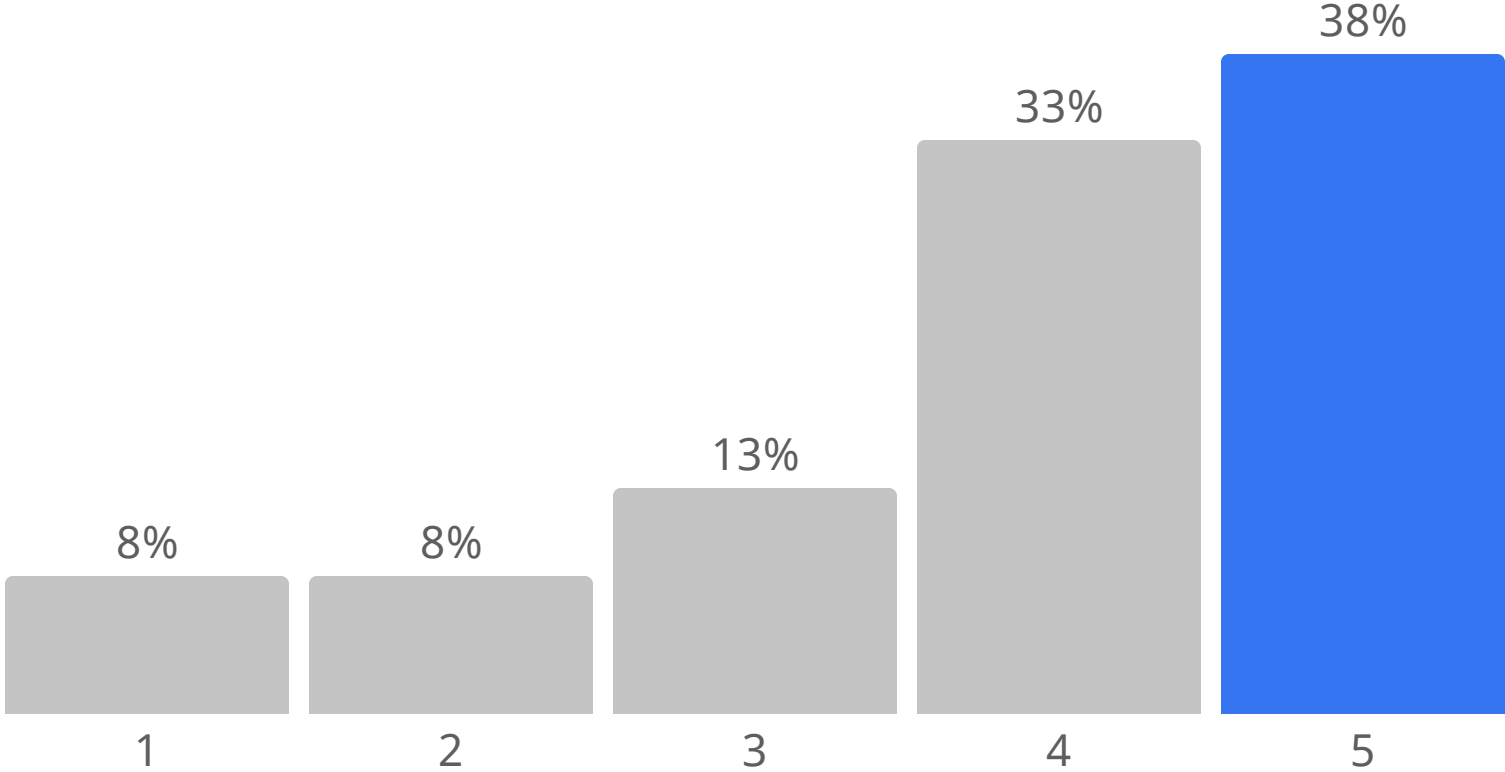
Rating poll

Indicate your excitement level for each RESIDENTIAL Fuel Sub Measure (2/8)

0 2 4

**R2 120V Heat Pumps**

Score: 3.8



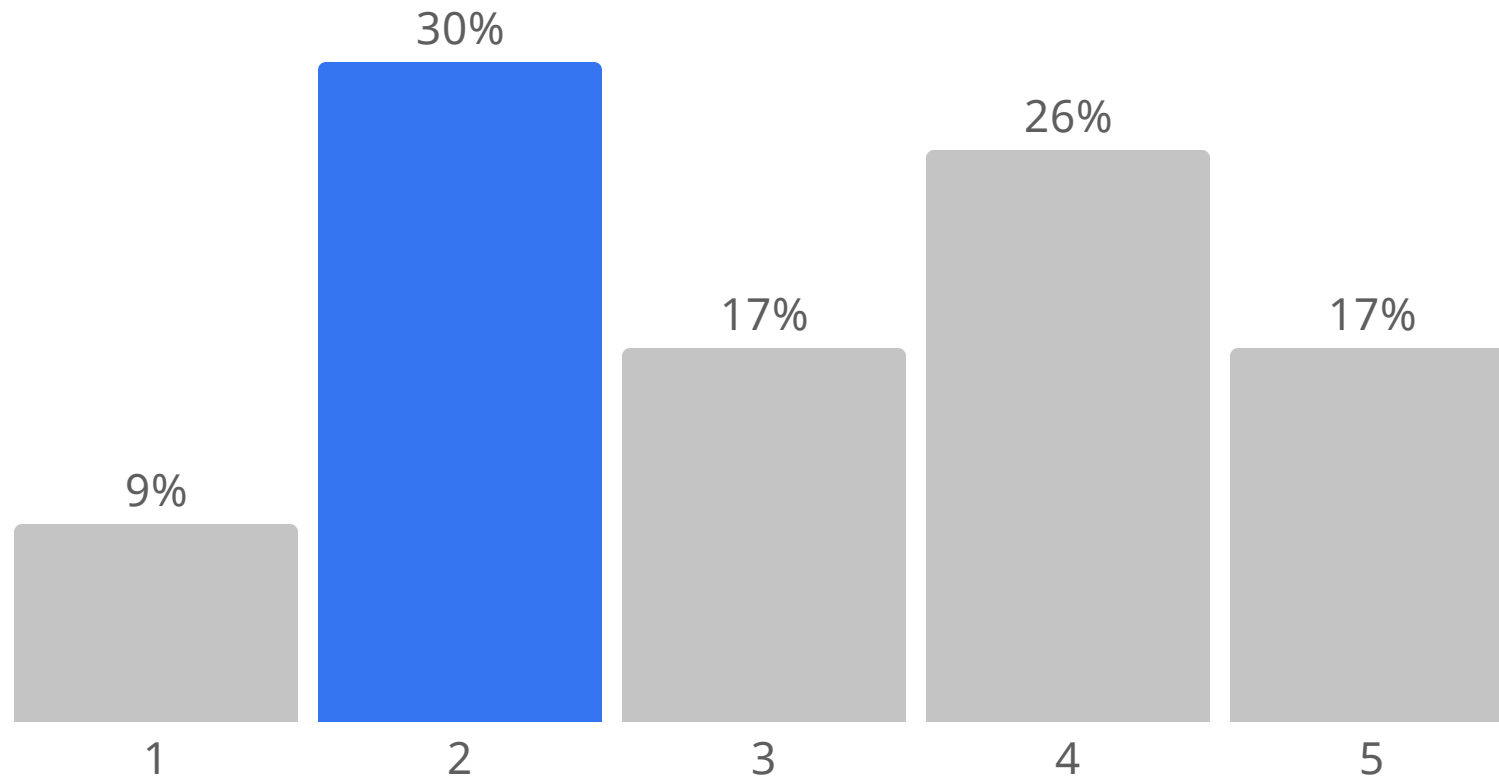
## Rating poll

Indicate your excitement level for each RESIDENTIAL Fuel Sub Measure (3/8)

0 2 3

### R3 Air to Water Heat Pumps (AWHP)

Score: 3.1



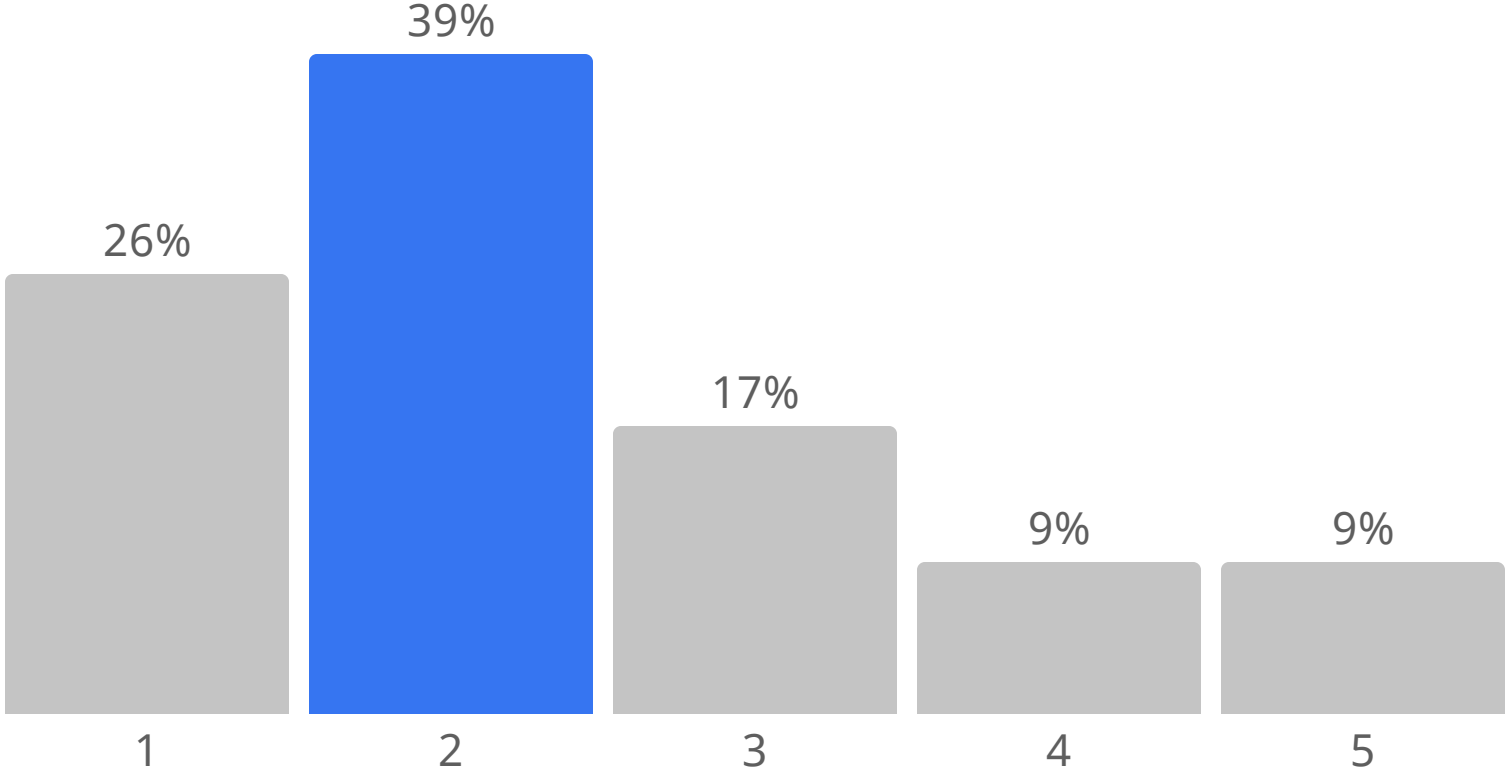
Rating poll

Indicate your excitement level for each RESIDENTIAL Fuel Sub Measure (4/8)

0 2 3

**R4 Ground Source Heat Pumps (GSHP)**

Score: 2.3



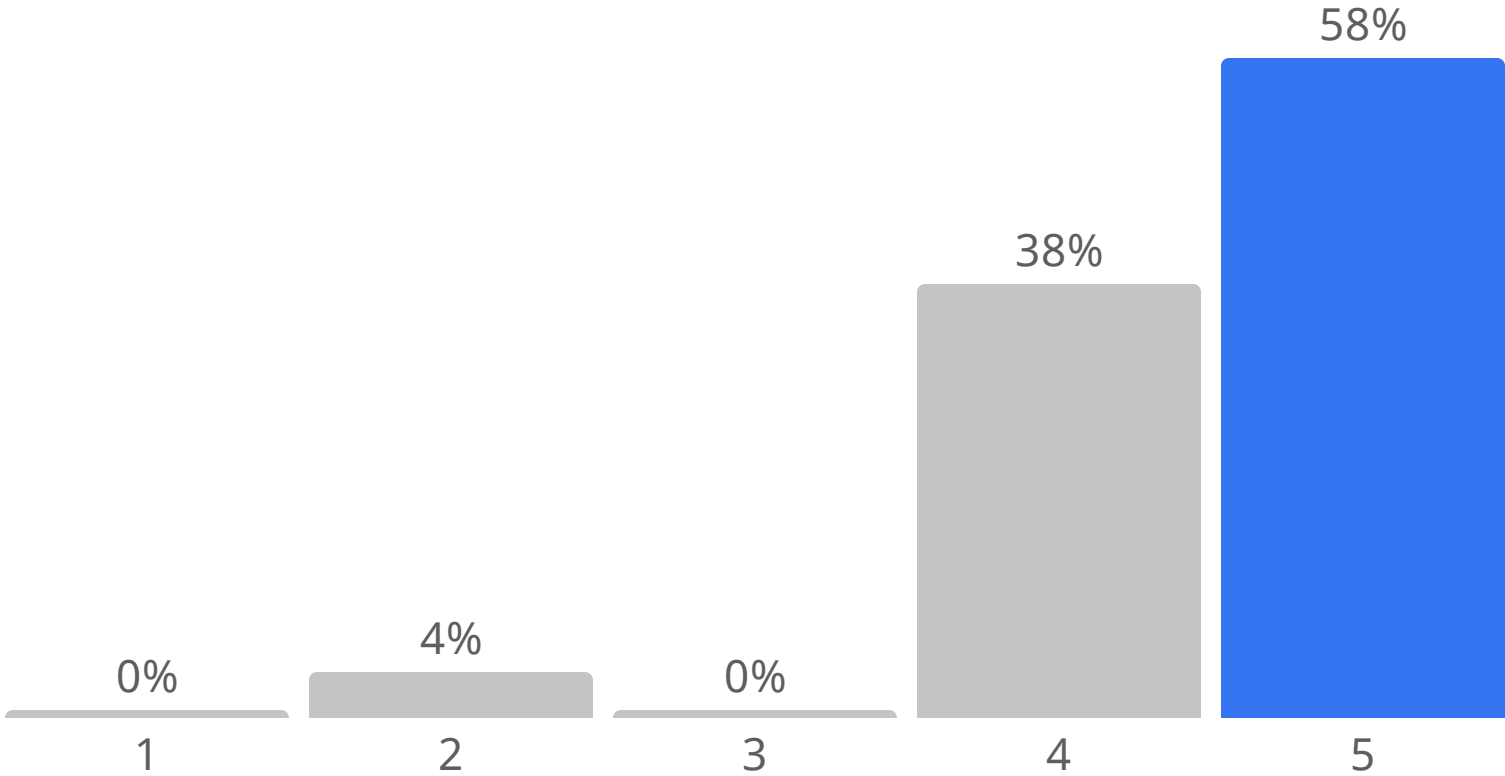
Rating poll

Indicate your excitement level for each RESIDENTIAL Fuel Sub Measure (5/8)

0 2 4

# R5 Ductless Heat Pumps (DHP) (Update SWHC044)

Score: 4.5



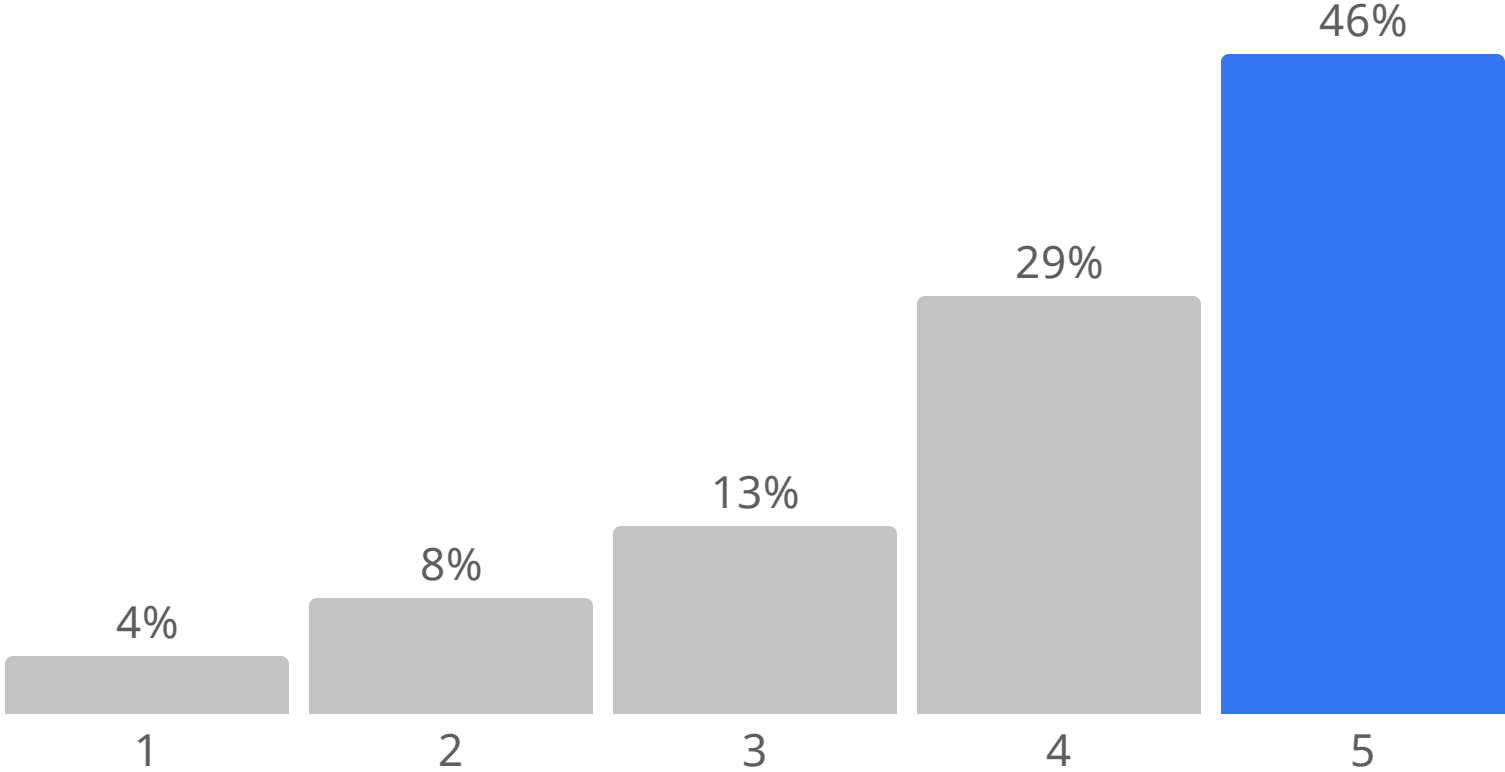
Rating poll

Indicate your excitement level for each RESIDENTIAL Fuel Sub Measure (6/8)

0 2 4

# R6 Central Ducted Heat Pumps (Update SWHC045)

Score: 4.0



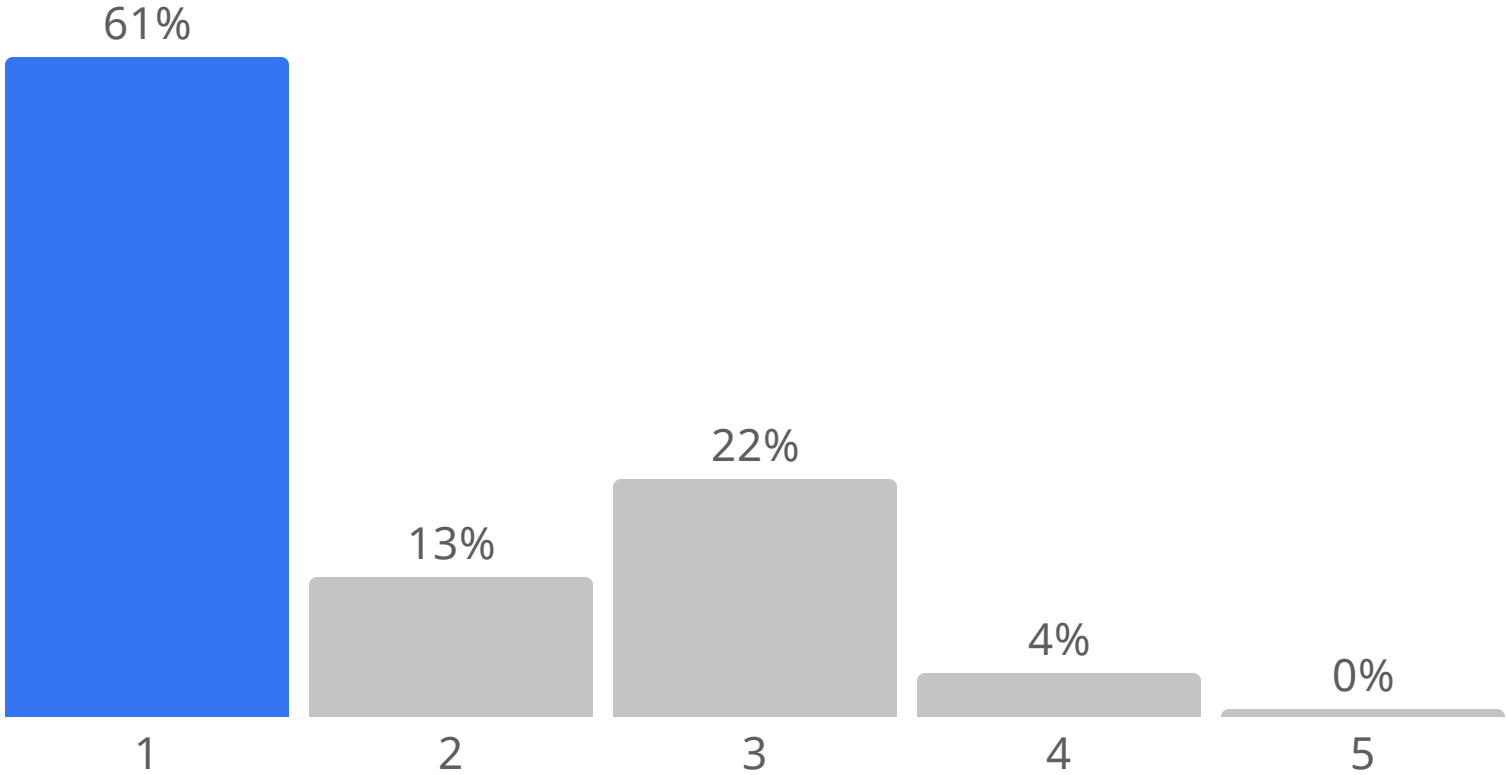
Rating poll

Indicate your excitement level for each RESIDENTIAL Fuel Sub Measure (7/8)

0 2 3

**R7 Electric resistance (ER) heating**

Score: 1.7



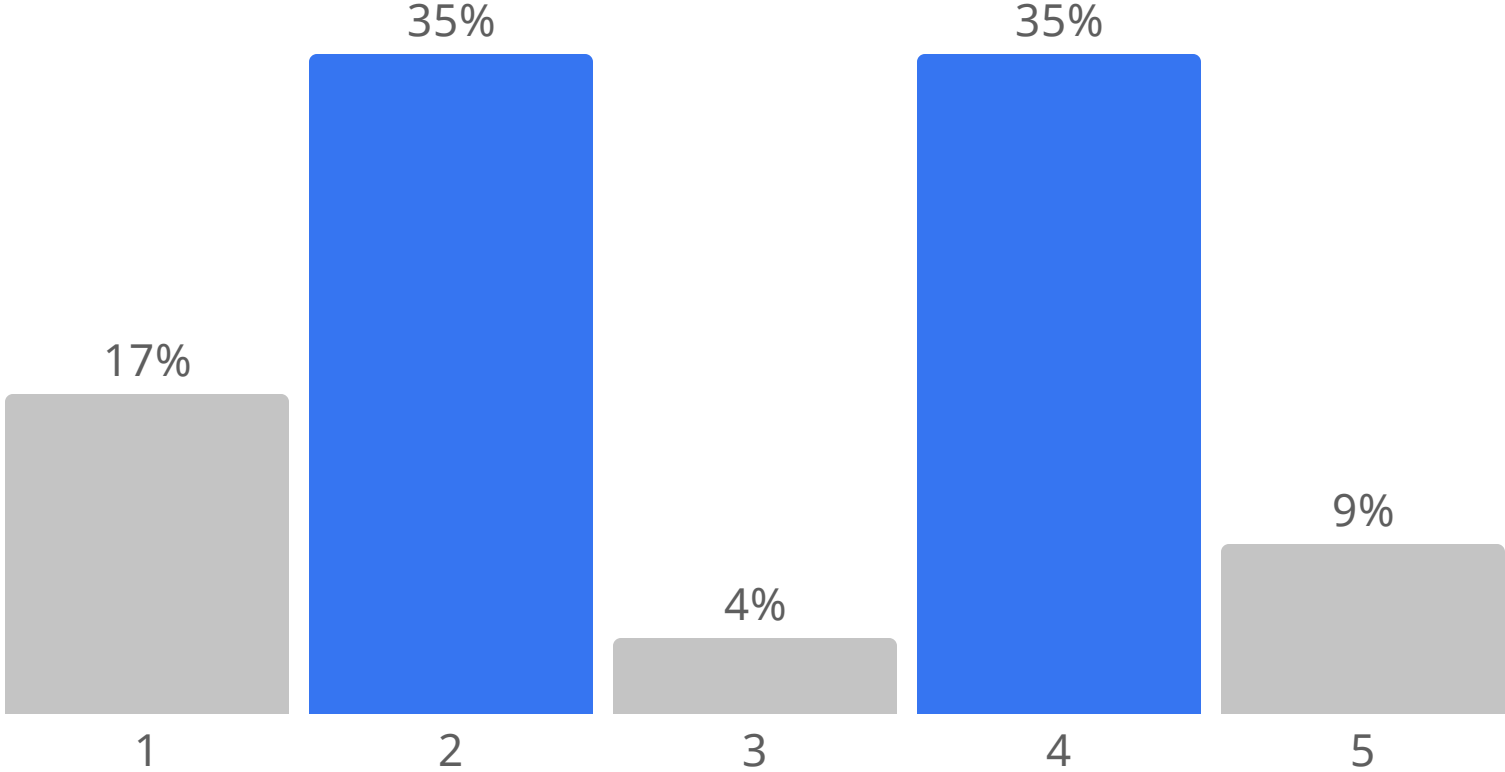
Rating poll

Indicate your excitement level for each RESIDENTIAL Fuel Sub Measure (8/8)

0 2 3

# R8 Dual Fuel Heat Pumps

Score: 2.8



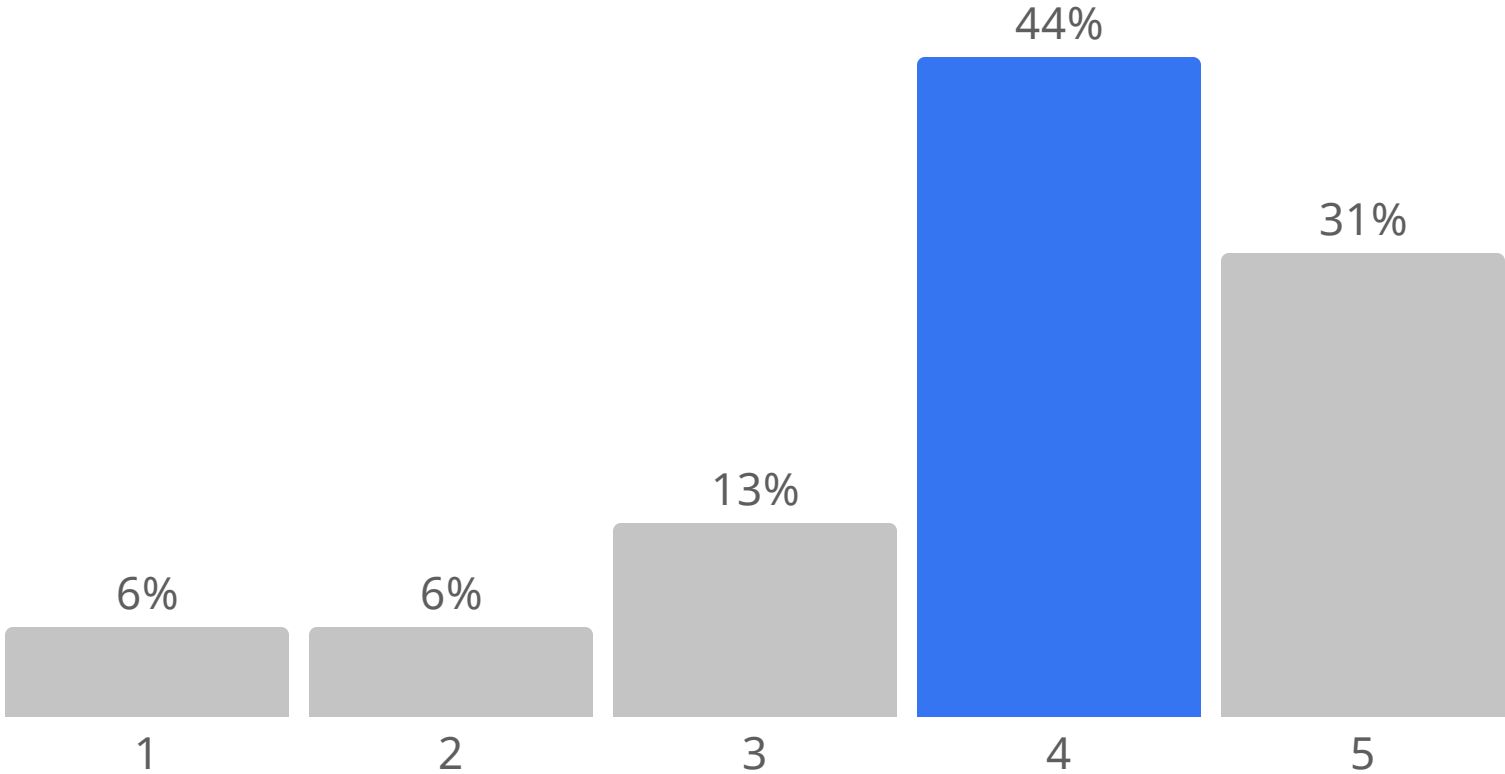
Rating poll

Indicate your excitement level for each COMMERCIAL Fuel Sub Measure (1/15)

0 1 6

**C1 Air Source Heat Pump: Air-to-Air HP, Air-to-Water HP, and Air Source VRF HP w/o heat recovery**

Score: 3.9





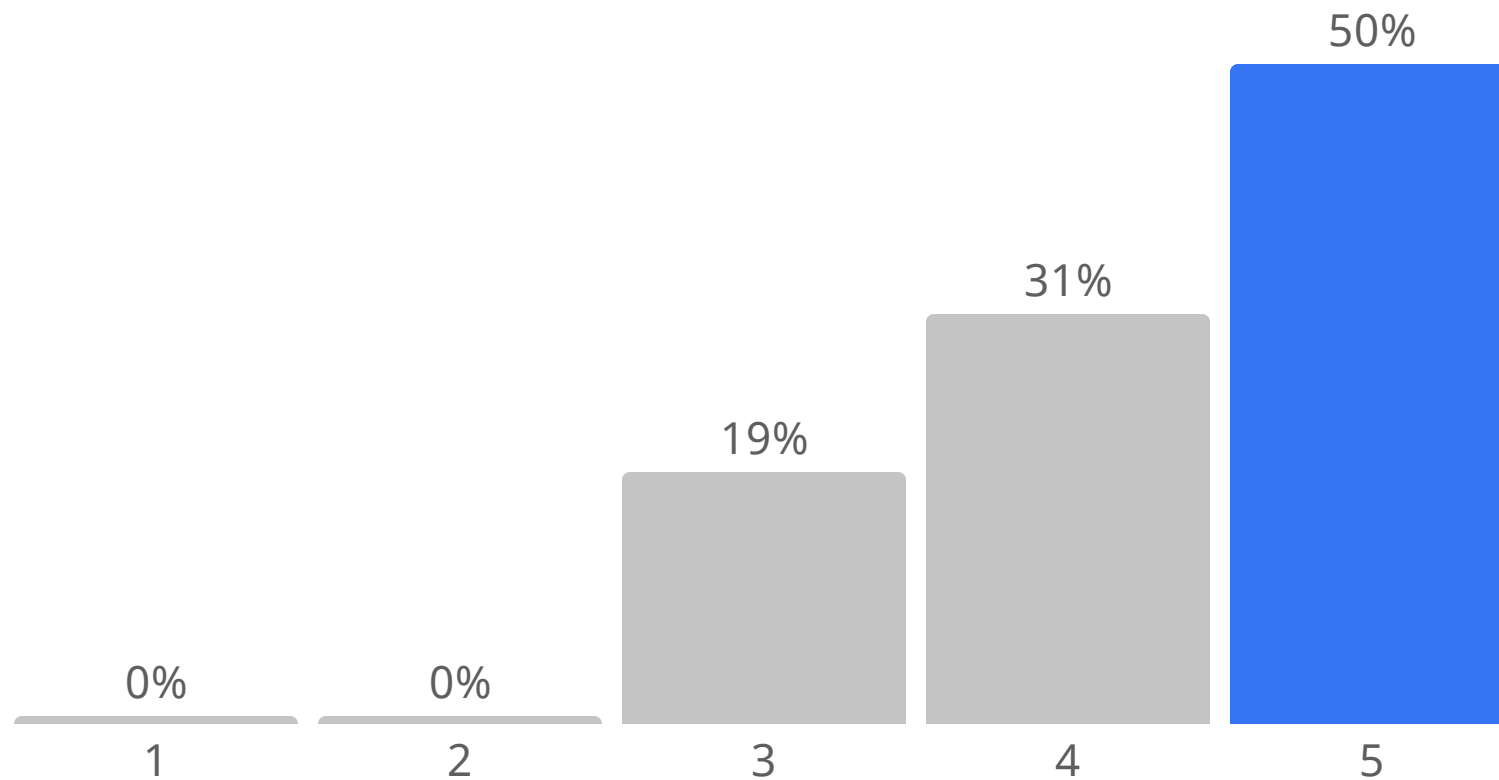
## Rating poll

Indicate your excitement level for each COMMERCIAL Fuel Sub Measure (2/15)

0 1 6

### C2 Mechanical Heat Recovery (HR): Air Source HR Chillers, Water Source HR chillers, VFR w/ HR

Score: 4.3

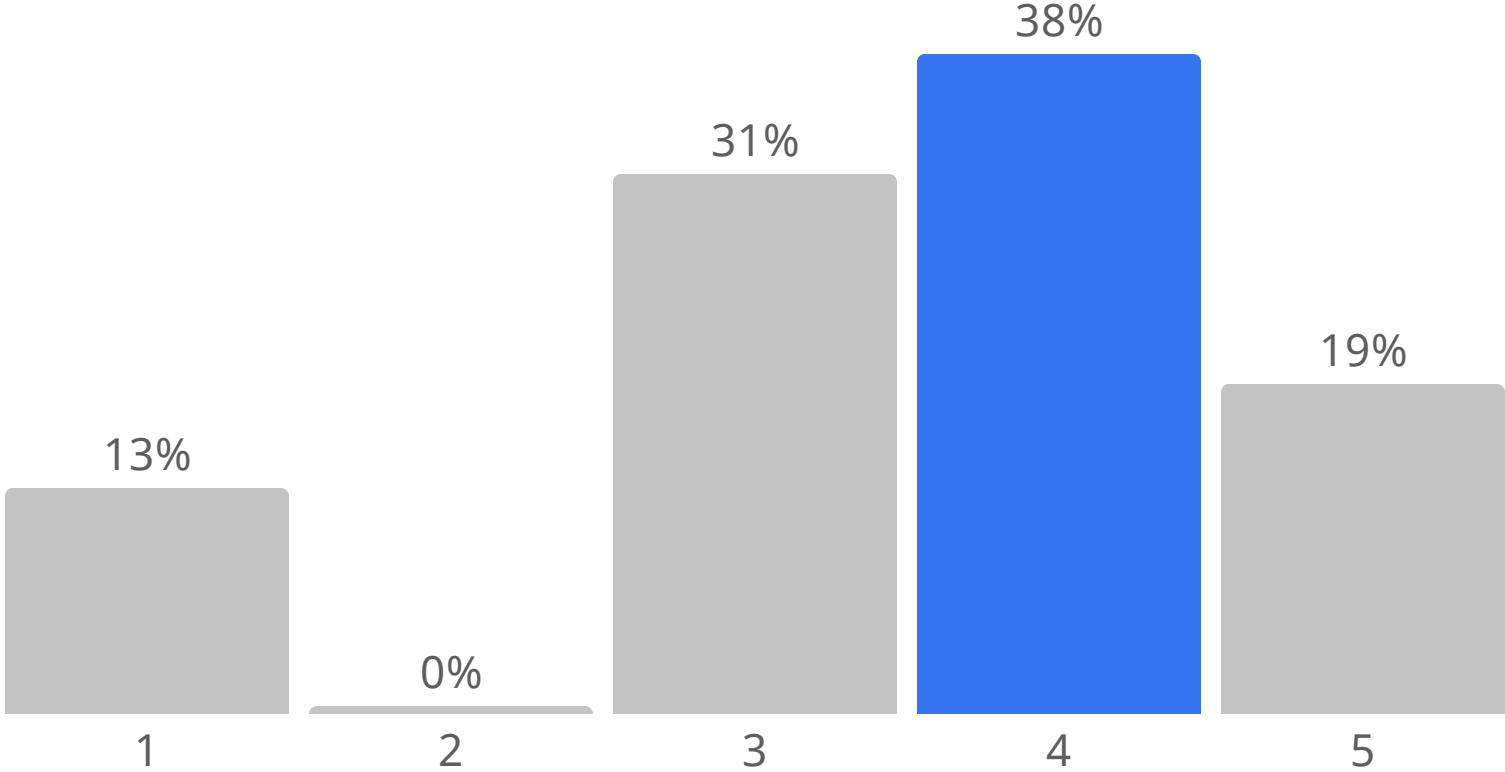


Indicate your excitement level for each COMMERCIAL Fuel Sub Measure (3/15)

0 1 6

### C3 Water Source Heat Pumps: Water-to-Air HPs, Water-to-Water HPs, Water Source VRFs

Score: 3.5



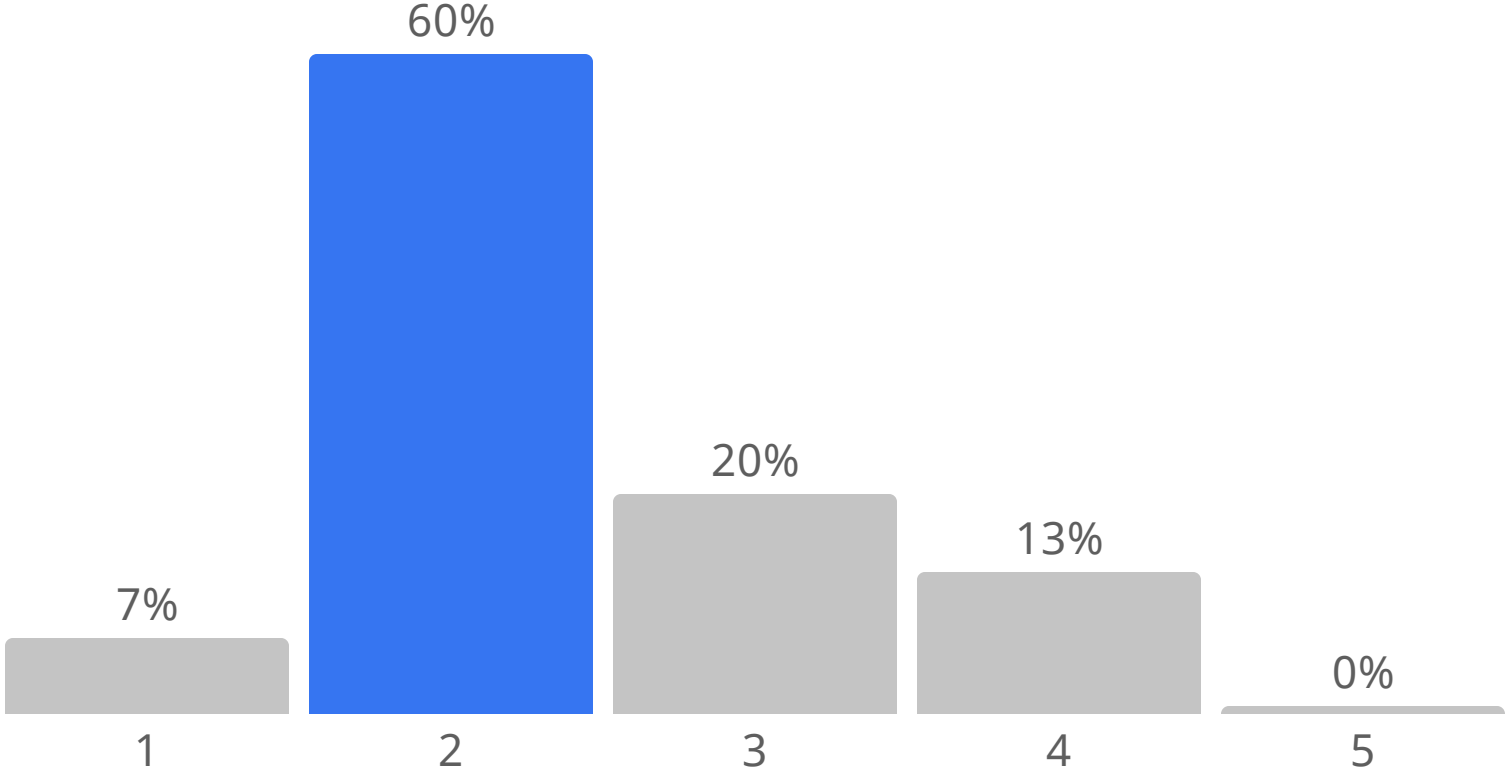
Rating poll

Indicate your excitement level for each COMMERCIAL Fuel Sub Measure (4/15)

0 1 5

**C4 Ground Source Heat Pump (GSHP)**

Score: 2.4

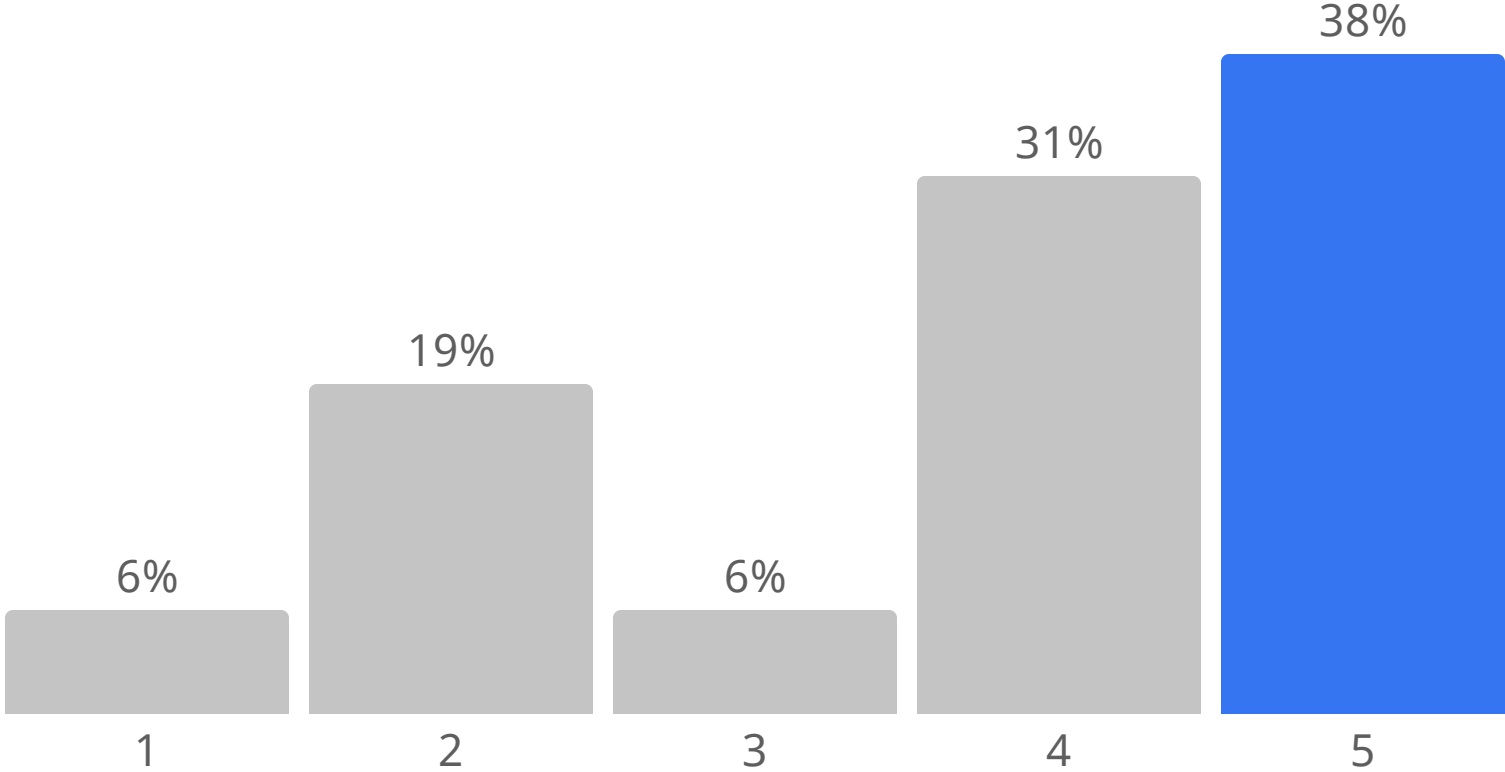


Indicate your excitement level for each COMMERCIAL Fuel Sub Measure (5/15)

0 1 6

### C5 Thermal Energy Storage (TES)

Score: 3.8



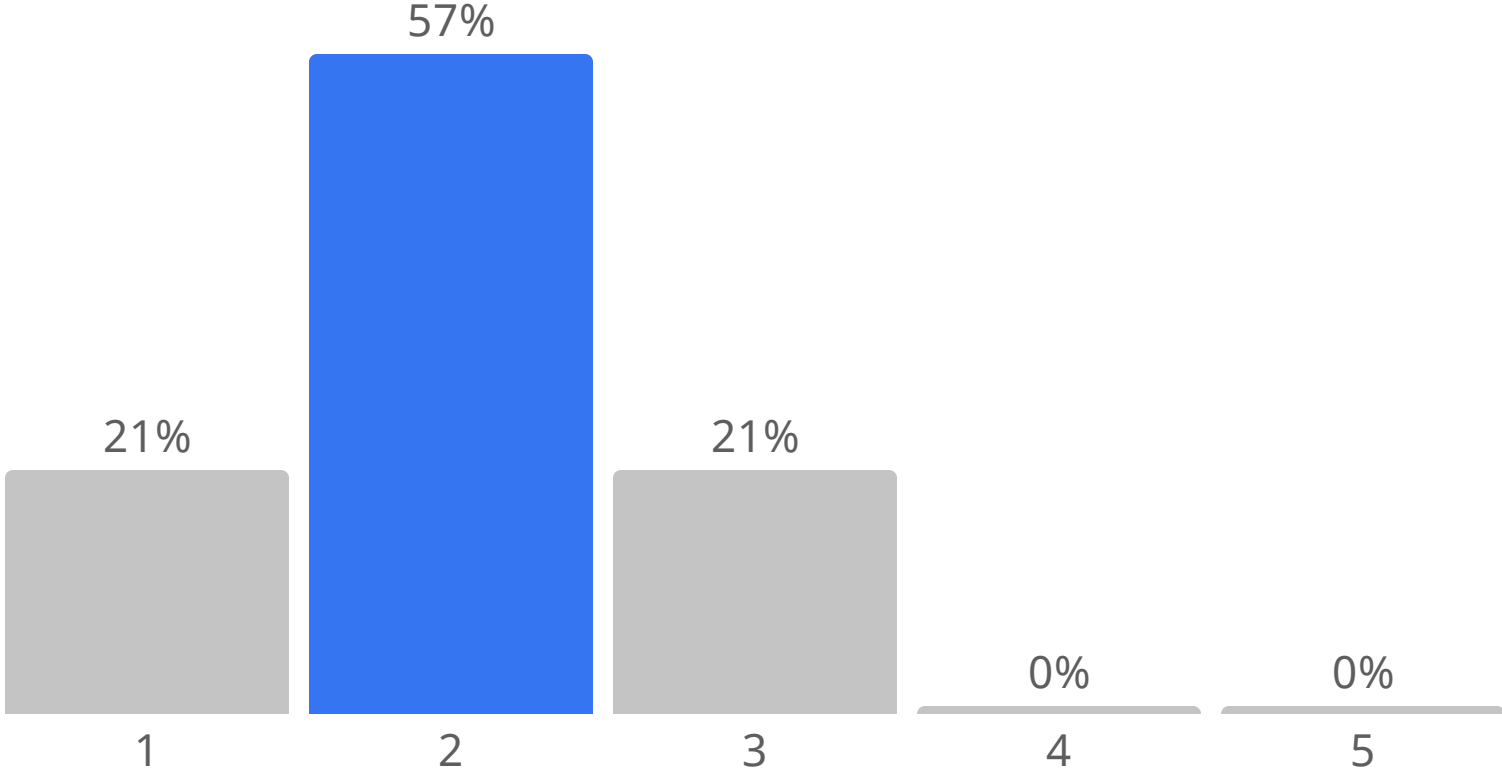
Rating poll

Indicate your excitement level for each COMMERCIAL Fuel Sub Measure (6/15)

0 1 4

### C6 Electric Resistance (ER) Heating

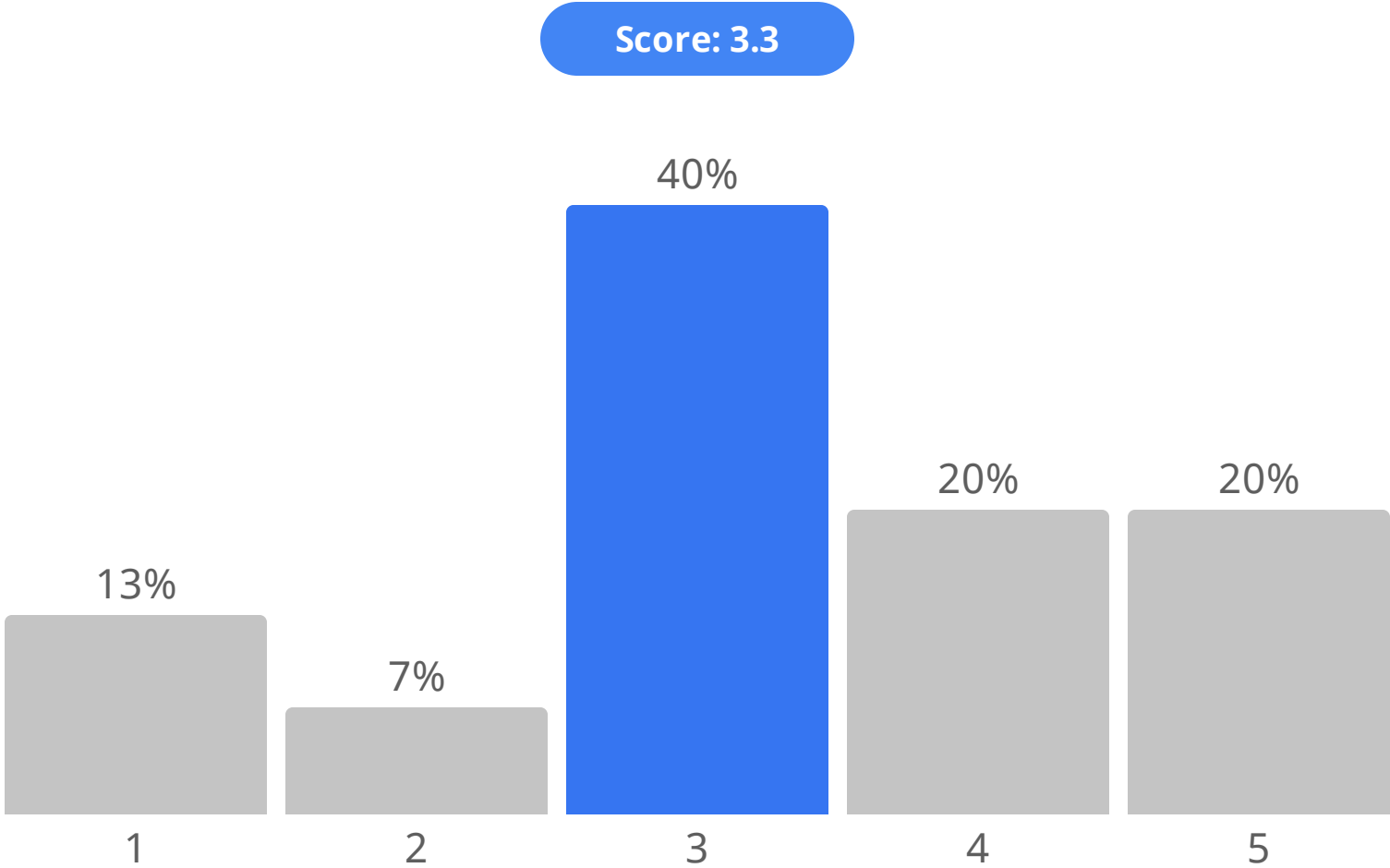
Score: 2.0



Indicate your excitement level for each COMMERCIAL Fuel Sub Measure (7/15)

0 1 5

### C7 Waste Fluid Heat Recovery: Exhaust Air HR + Waste-Water HR

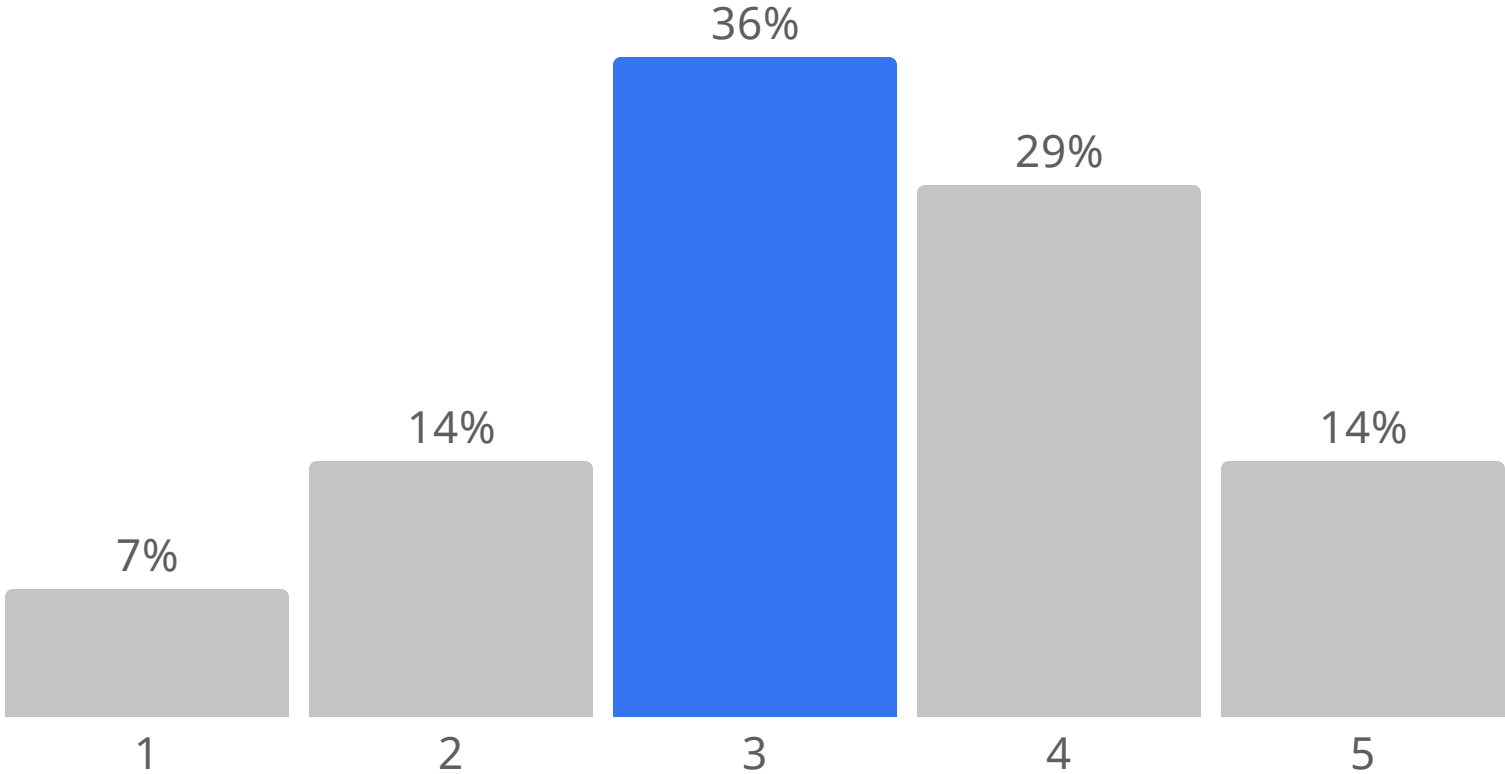


Indicate your excitement level for each COMMERCIAL Fuel Sub Measure (8/15)

0 1 4

### C8 Single Zone Wall-Mounted Equipment: Packaged Terminal HP (PTHP), Single Packaged Vertical HP (SPVHP)

Score: 3.3



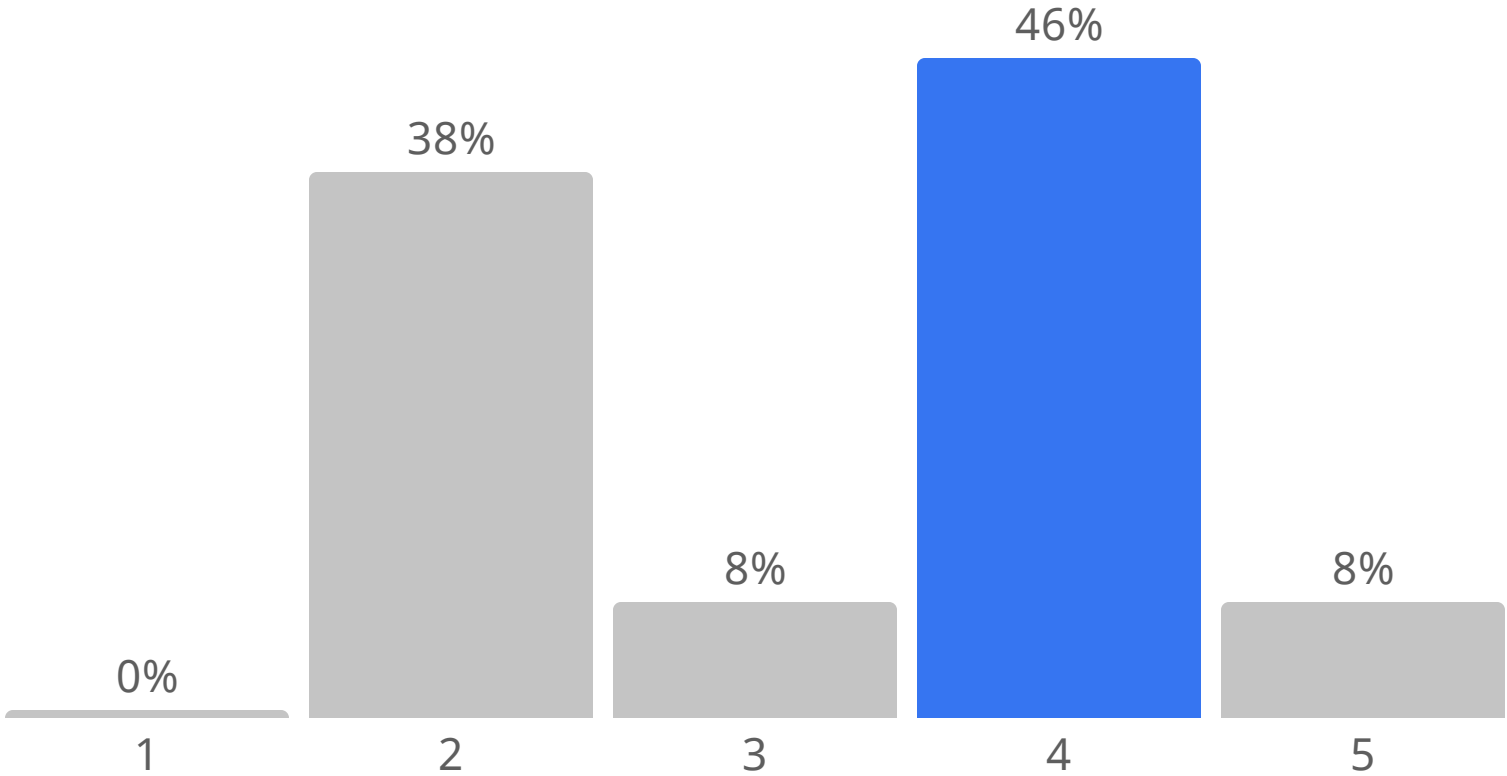
Rating poll

Indicate your excitement level for each COMMERCIAL Fuel Sub Measure (9/15)

0 1 3

**C9 ASHP + Mech HR: CUHP + Mech HR, AWHP + Mech HR, VRF + Mech HR**

Score: 3.2





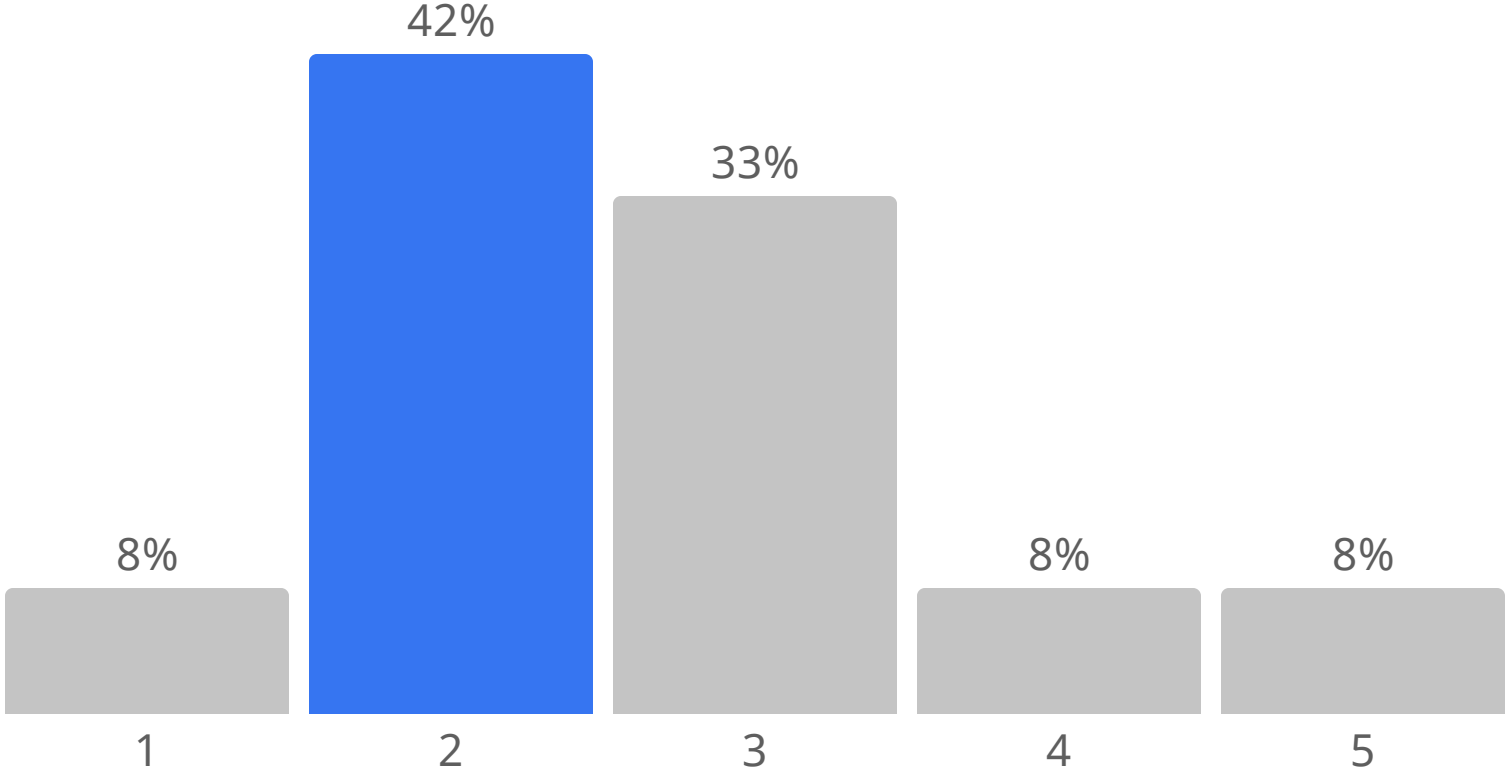
Rating poll

Indicate your excitement level for each COMMERCIAL Fuel Sub Measure (10/15)

0 1 2

**C10 ASHP + WSHP**

Score: 2.7



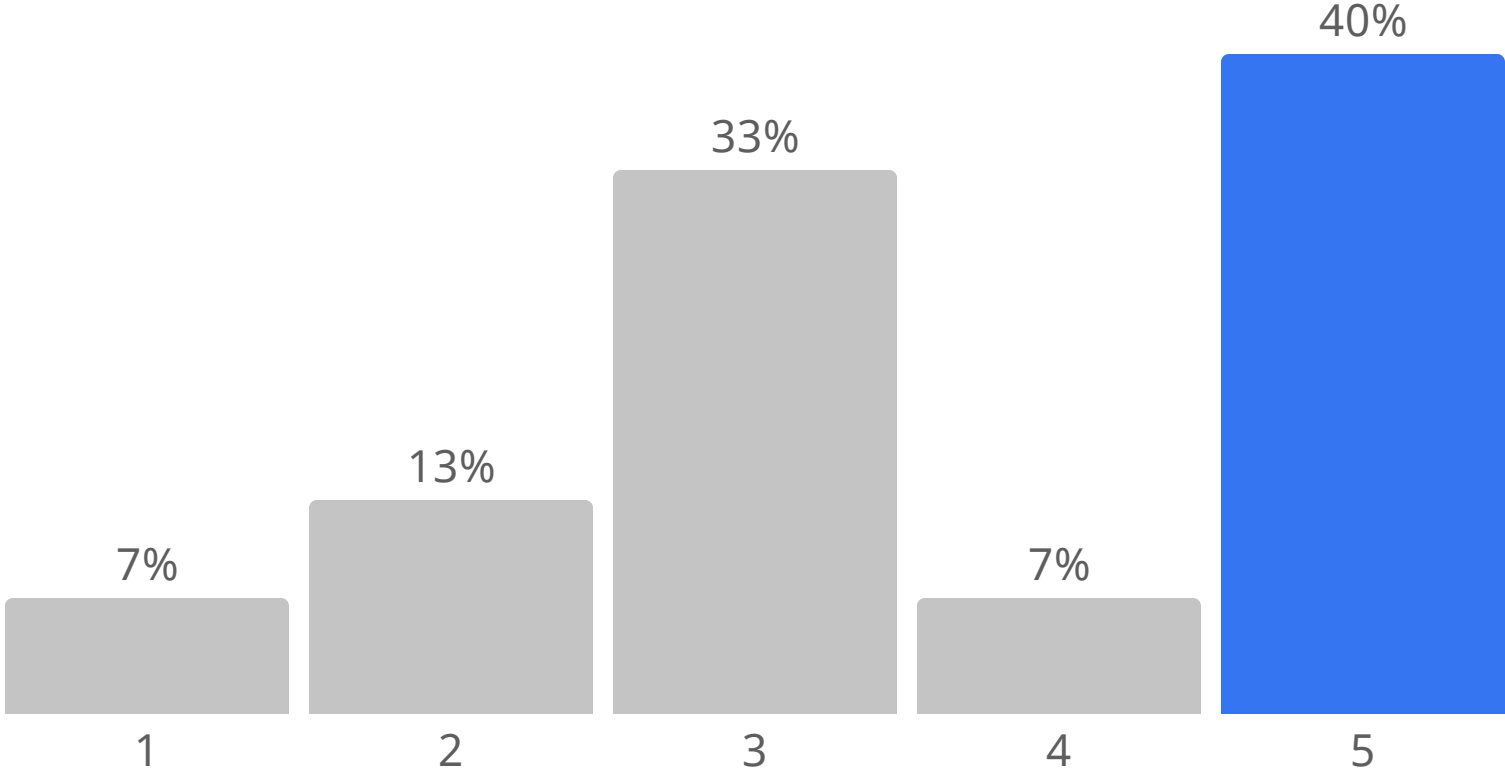
Rating poll

Indicate your excitement level for each COMMERCIAL Fuel Sub Measure (11/15)

0 1 5

**C11 ASHP + Mech HR + TES**

Score: 3.6



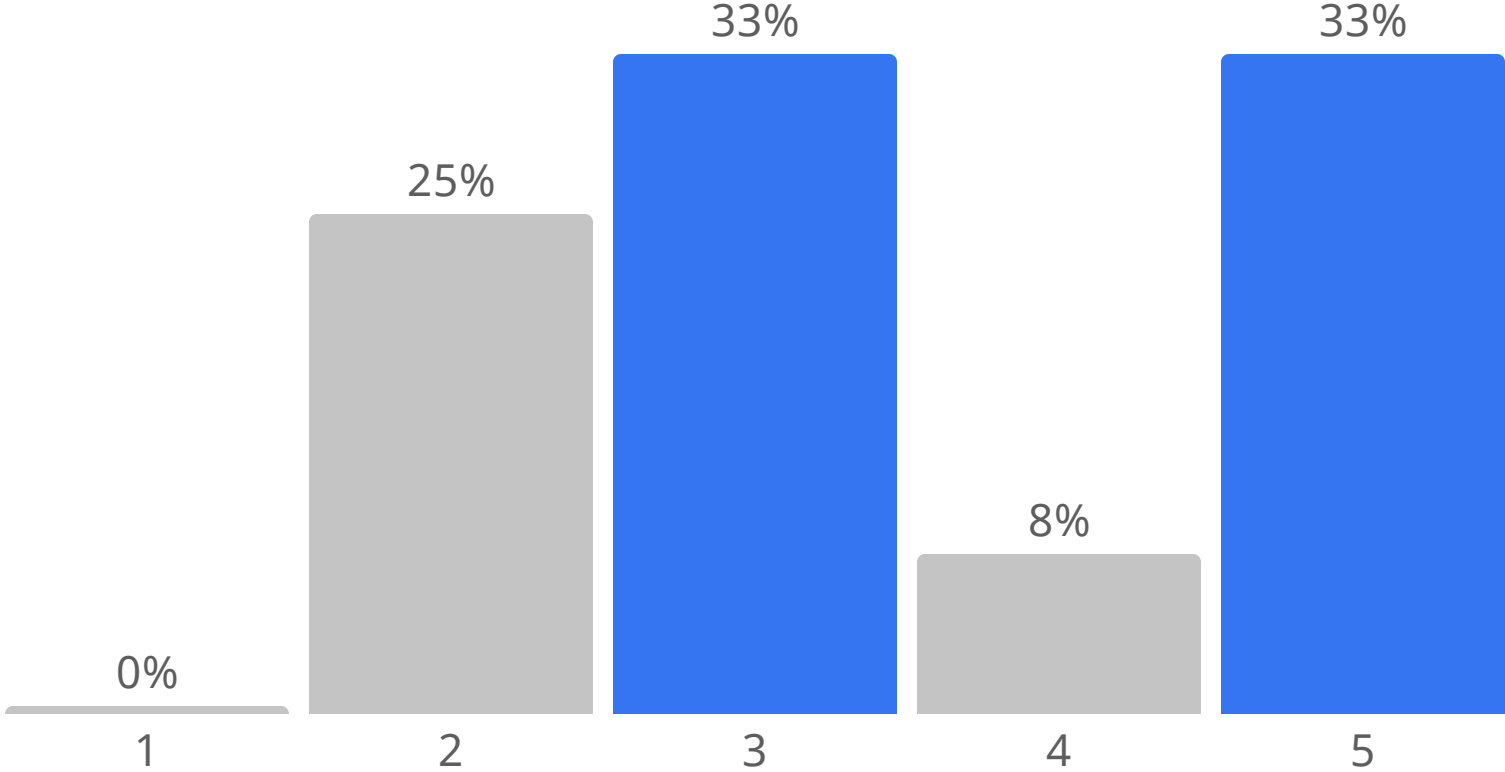
Rating poll

Indicate your excitement level for each COMMERCIAL Fuel Sub Measure (12/15)

0 1 2

**C12 ASHP + Waste Fluid HR**

Score: 3.5

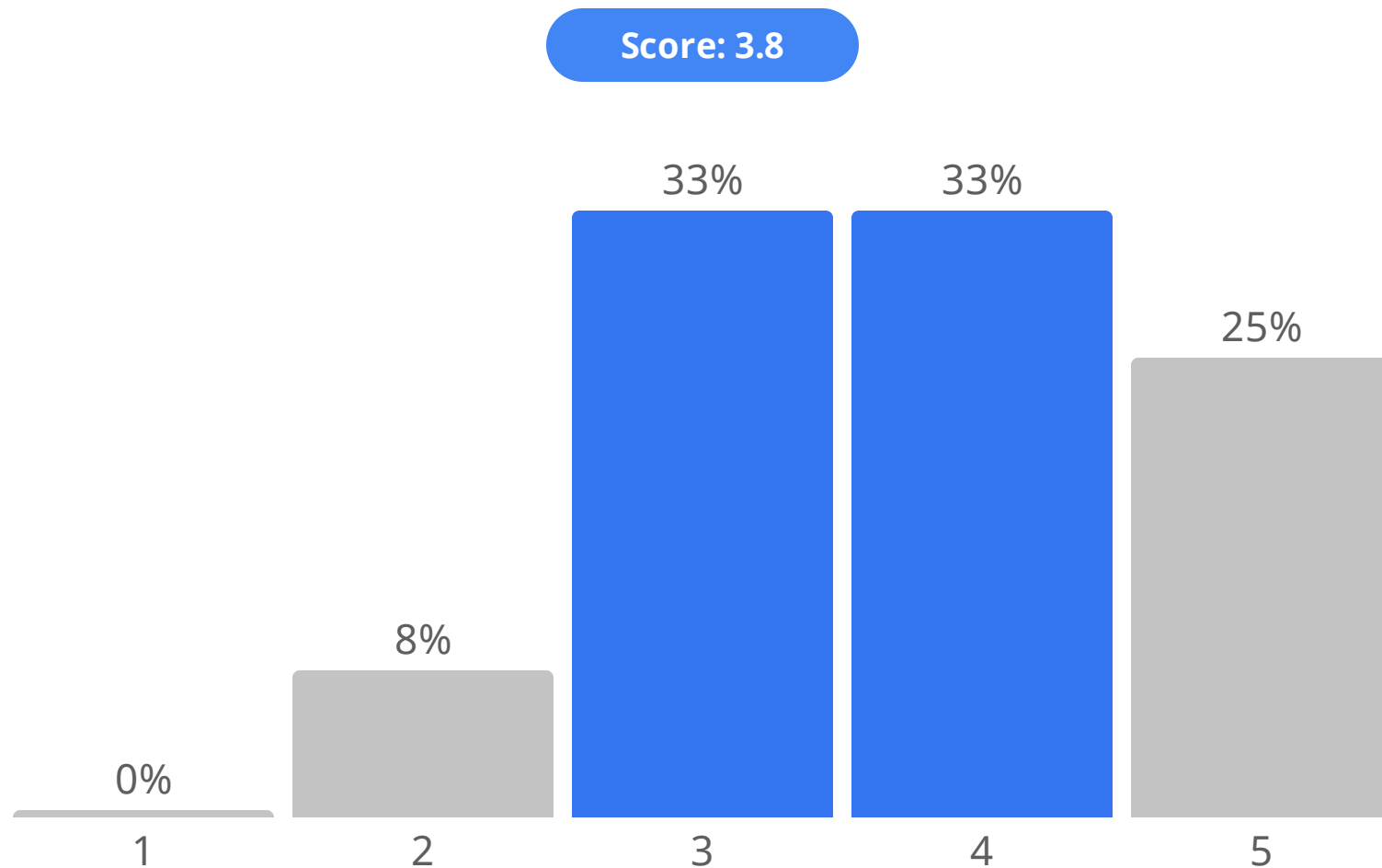


## Rating poll

Indicate your excitement level for each COMMERCIAL Fuel Sub Measure (13/15)

0 1 2

**C13 ER + Others: ER bundled w/ addt'l measures (envelope improvement, HVAC controls upgrade, solar PV, battery)**

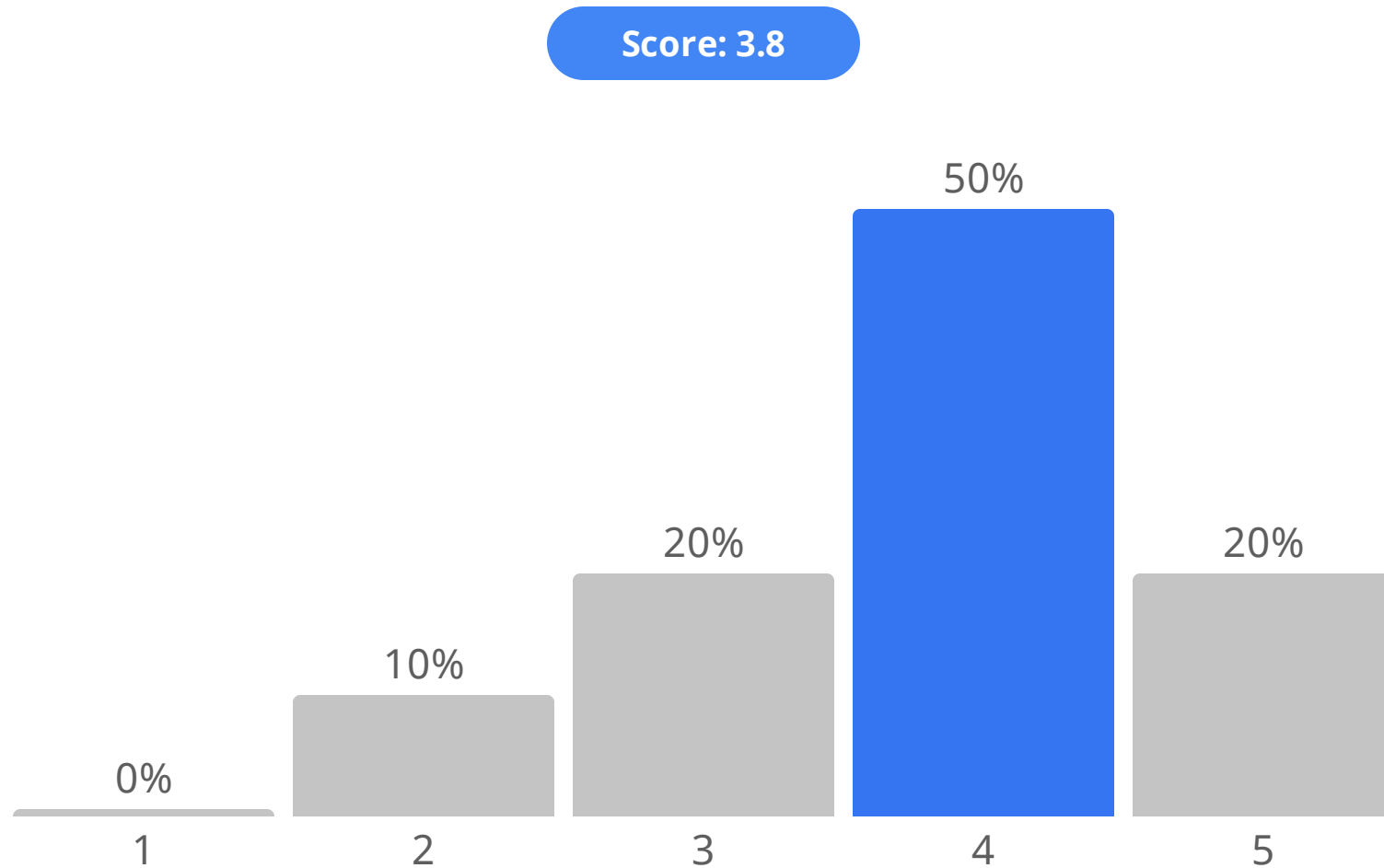


## Rating poll

Indicate your excitement level for each COMMERCIAL Fuel Sub Measure (14/15)

0 1 0

### **C14 ASHP + Mech HR + TES in exterior zones & ER in interior zones**

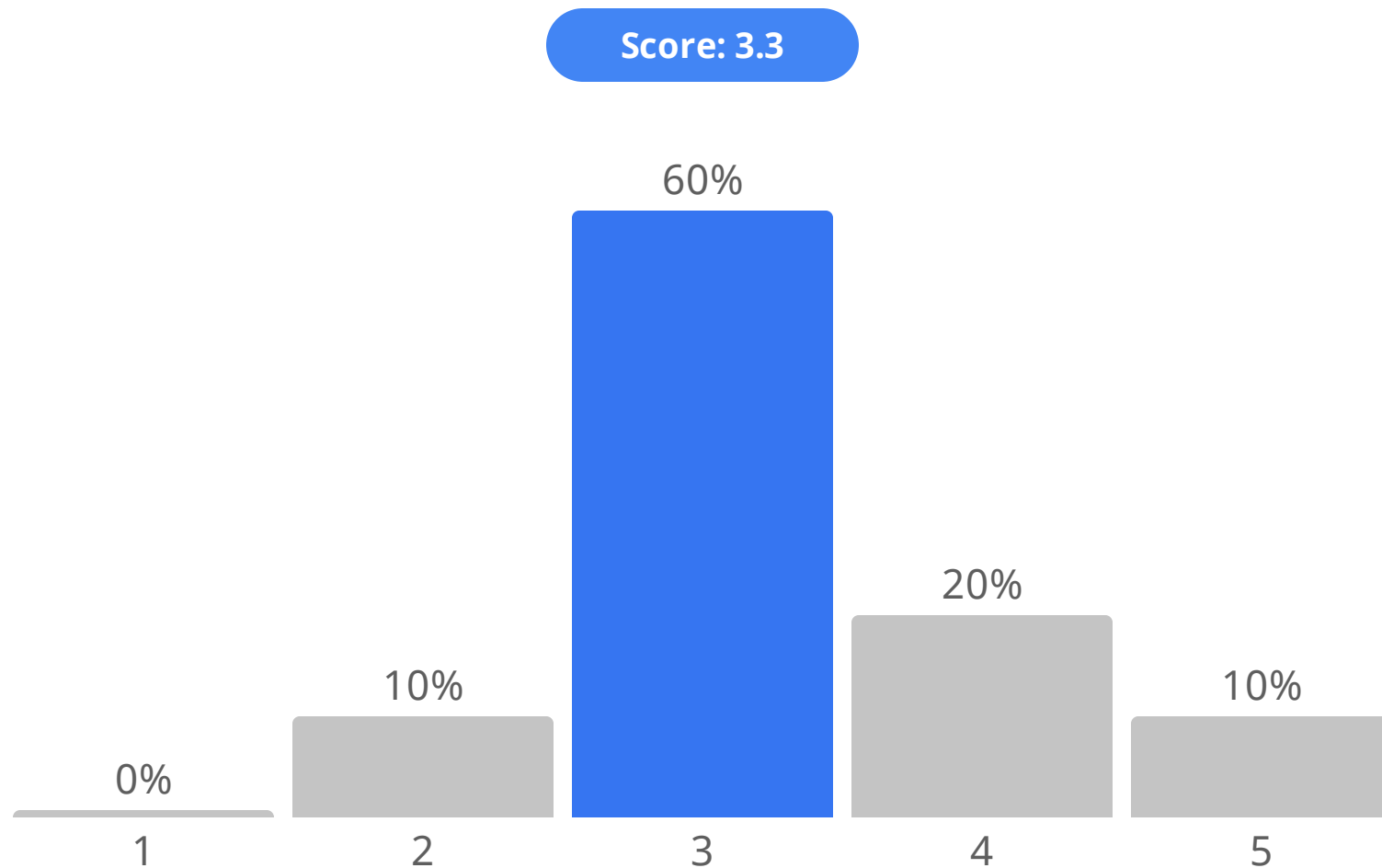


## Rating poll

Indicate your excitement level for each COMMERCIAL Fuel Sub Measure (15/15)

0 1 0

### **C15 EE/DG Measures: Lower HWST, DDC, Building envelop improvement, PV + storage, Solar thermal assisted water heating**



## Residential Fuel Sub Measures

Measure	Score
R5 Ductless Heat Pumps (DHP) (Update SWHC044)	4.5
R1 Combination DHW + Space Heating Heat Pumps	4.2
R6 Central Ducted Heat Pumps (Update SWHC045)	4
R2 120V Heat Pumps	3.8
R3 Air to Water Heat Pumps (AWHP)	3.1
R8 Dual Fuel Heat Pumps	2.8
R4 Ground Source Heat Pumps (GSHP)	2.3
R7 Electric resistance (ER) heating	1.7

## Commercial Fuel Sub Measures

Measure	Based on 15 votes	
	Average Score	
C2 Mechanical Heat Recovery (HR): Air Source HR Chillers, Water Source HR chillers, VFR w/ HR	4.3	
C1 Air Source Heat Pump: Air-to-Air HP, Air-to-Water HP, and Air Source VRF HP w/o heat recovery	4	
C3 Water Source Heat Pumps: Water-to-Air HPs, Water-to-Water HPs, Water Source VRFs	3.6	
C5 Thermal Energy Storage (TES)	3.6	
C14 ASHP + Mech HR + TES in exterior zones & ER in interior zones	3.6	
C13 ER + Others: ER bundled w/ add'l measures (envelope improvement, HVAC controls upgrade, solar PV, battery)	3.5	
C11 ASHP + Mech HR + TES	3.4	
C12 ASHP + Waste Fluid HR	3.3	
C15 EE/DG Measures: Lower HWST, DDC, Building envelop improvement, PV + storage, Solar thermal assisted water heating	3.3	
C8 Single Zone Wall-Mounted Equipment: Packaged Terminal HP (PTHP), Single Packaged Vertical HP (SPVHP)	3.2	
C9 ASHP + Mech HR: CUHP + Mech HR, AWHP + Mech HR, VRF + Mech HR	3.1	
C7 Waste Fluid Heat Recovery: Exhaust Air HR + Waste-Water HR	3	
C10 ASHP + WSHP	2.5	
C4 Ground Source Heat Pump (GSHP)	2.3	
C6 Electric Resistance (ER) Heating	1.9	