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Heat pump costs and incentives:

Analysis from marketplace data

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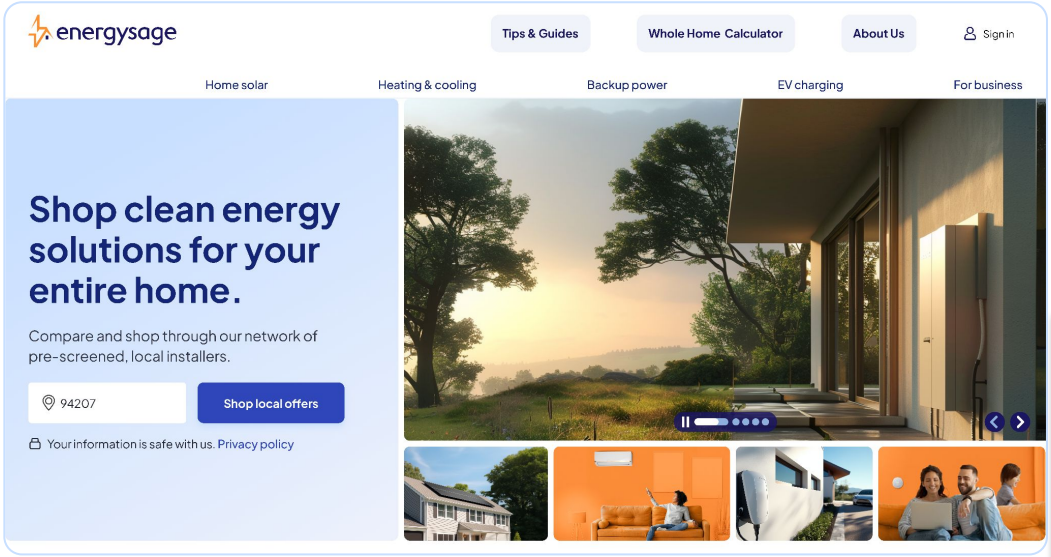
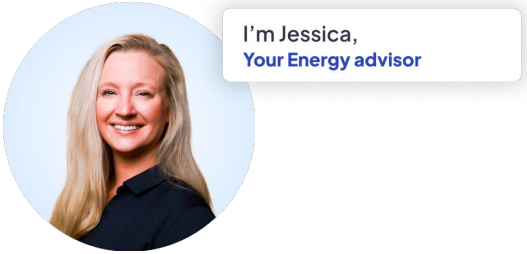
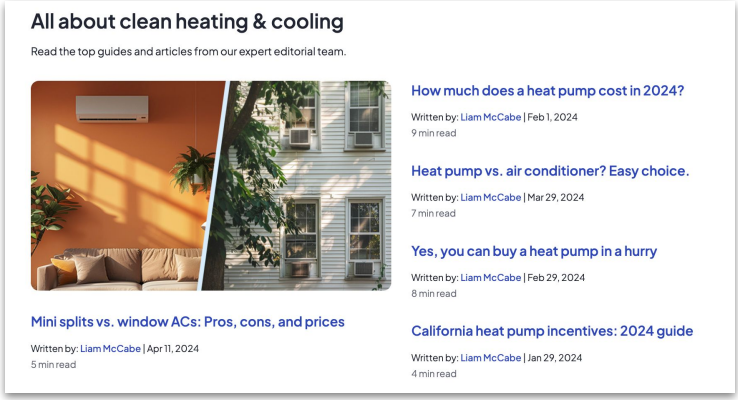
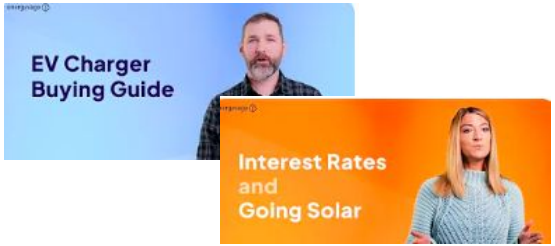
Introduction to EnergySage









Agenda:

- Heat pump costs
- Incentive effectiveness
- Areas of opportunity

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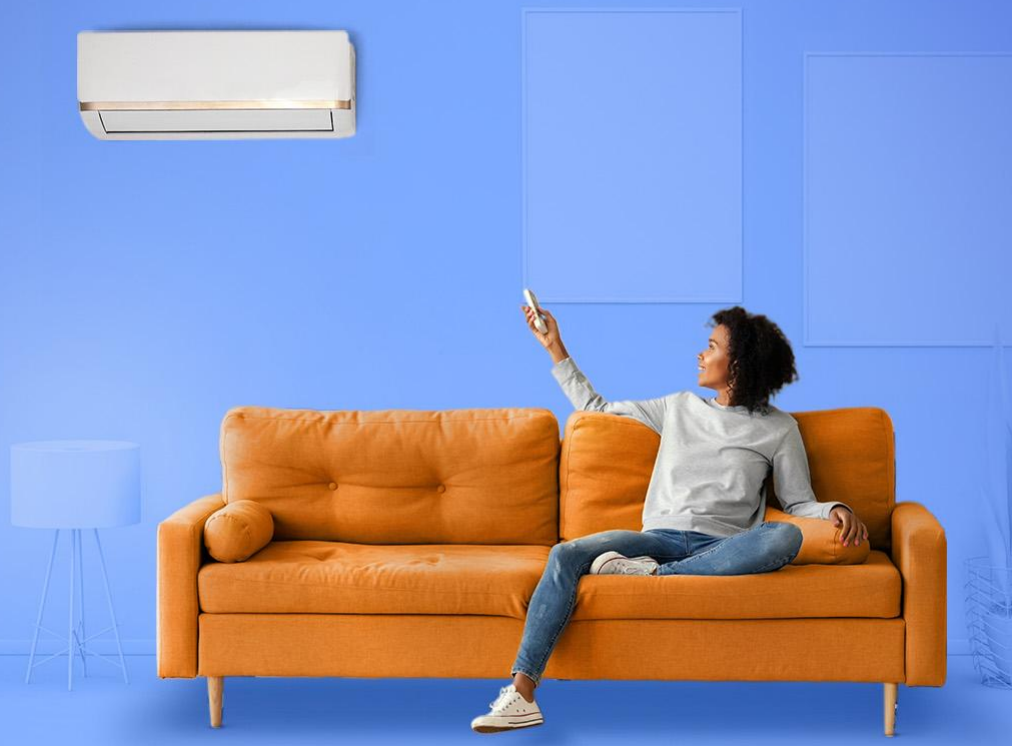


Research background

- Where do we get our data?
  - EnergySage Marketplace
  - Homeowners ask for quotes, contractors provide them
- About the data set
  - This data is from 2023
  - Predominantly Massachusetts and Colorado
  - All retrofits; no new construction
  - All numbers *after* incentives: Federal tax credit + state / local level
- Findings published on the EnergySage website

Heat pump costs

- Average: $16,025
- Typical range: $7,120 - $36,000
  - Outliers: As low as zero, as high as $66,000.
- Ducted average: $15,380 — relatively consistent
  - Hybrid (+ furnace): $18,650
- Ductless average: $16,965 — enormous range
  - $4,000 - $6,000 per zone, pretty consistently
- Price per ton: Not meaningful
  - But prices skyrocket at 6 tons

Heat pump costs by state

- Massachusetts: $15,855
  - Largest incentives, ductless is common
- Colorado: $16,590
  - Hybrid / dual-fuel systems are common, radiators are not
- California: $21,650**
  - Relatively few quotes compared to MA and CO

Incentive effectiveness

- Do consumers see *some* savings? We think so
- Whole-house ductless skews the average price higher in MA
  - Avg number of ductless zones in MA is close to double vs. CO
- Ducted HPs are much less expensive after incentives in MA
  - $7,800 extra incentives - $4,900 savings = $2,900 NOT passed onward
  - ~70% of the rebate ends up in the consumer's pocket

State	Median Heat Pump Cost, Ducted System	Typical Local Incentive
Massachusetts	$12,000	$10,000
Colorado	$16,908	$2,200 (extra in Denver)

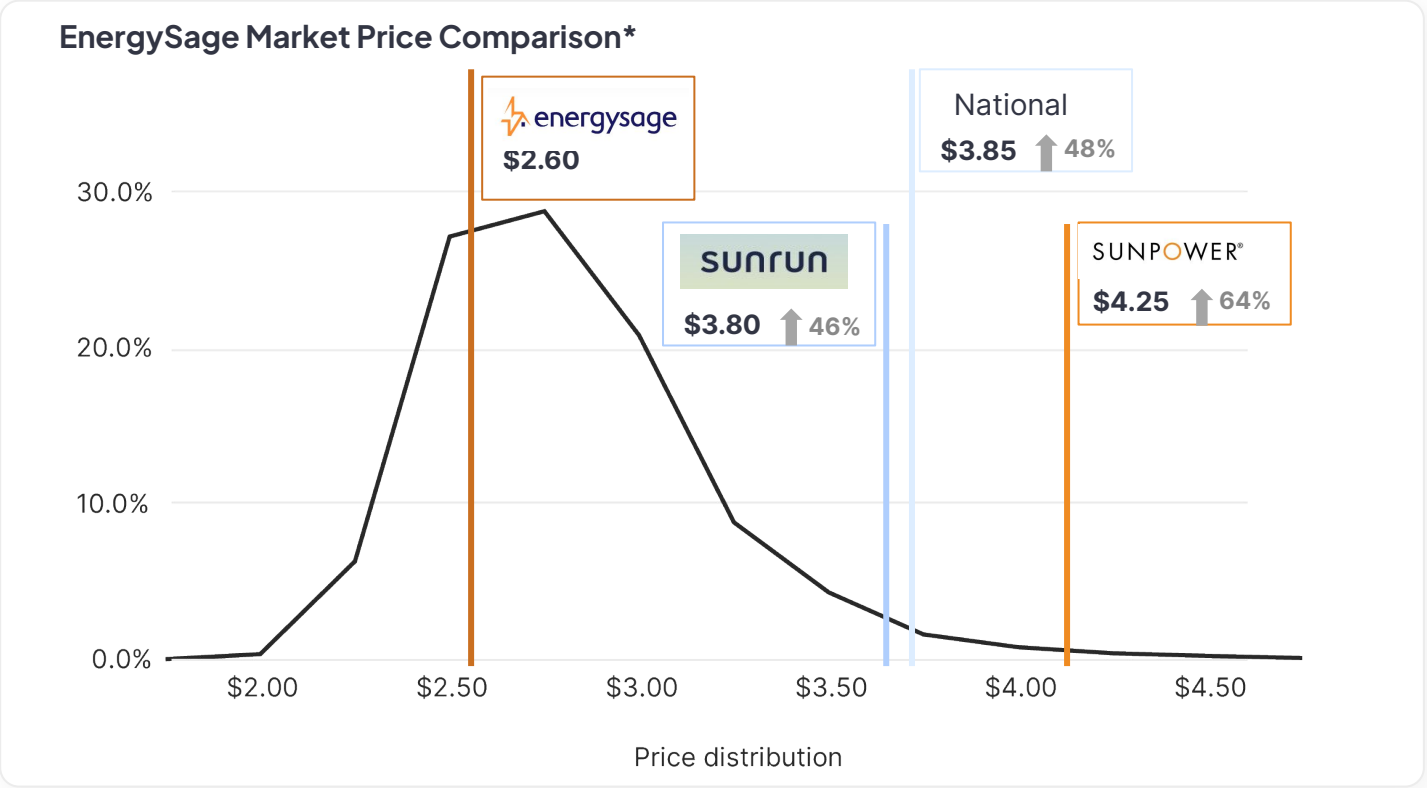
Other observations

- Systems still generally oversized
  - At least $1k in unnecessary system costs, affects comfort and efficiency
- Consumers' experience with contractors still a challenge
  - Many contractors still skeptical or untrained, but it's changing
- Quality of quotes and installs *seems* to be improving
  - At least some installers using design software / commissioning tools
  - Hybrid systems now uncommon in MA — contractor confidence + incentives

Opportunities for consumer benefit

- “What is a fair price?” is still difficult for many consumers to answer
  - The importance of quality complicates this question; these projects are not a commodity
  - Marketplaces help with this by establishing a fair price given project parameters
- Providing estimated ranges creates better sales dynamics
  - Avoid sticker shock
  - Contractors don’t need to “price in the risk”
- Setting realistic cost expectations is good for the whole market
  - Contractors are more responsive because the customer is actively shopping
  - Contractors can focus more on system design because site visits convert at a higher rate

Marketplaces save 20%– 40%+ on the total system price



* Source: Full year 2021 EnergySage Solar Marketplace data. Competitor and National figures for 2022 not yet available. For most up to date EnergySage pricing, see the 1H 2023 Solar and Storage Marketplace report.

Thank you!

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