Building Decarbonization Coalition Presents:

Long-Term Gas Planning Proceeding Webinar Series
Greenbank Associates
### Figure 1: Decarbonization Targets Within the Building Sector

<table>
<thead>
<tr>
<th>Category</th>
<th>Definition</th>
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<tbody>
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<td>Retrofits % GHG reduction below 1990 levels from the overall building stock:</td>
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<td>2025: 20% GHG reductions from building sector</td>
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<td>2030: 40% GHG reductions from building sector</td>
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<td>2045: 100% GHG reductions from building sector</td>
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- Increase the share of high efficiency heat pumps for space heating from 5% in 2018 to 50% in 2025 and 100% in 2030.
- Increase the share of high efficiency heat pumps for water heating from 1% in 2018 to 50% in 2025 and 100% in 2030.
Roadmap Goals

Goal 1: Build customer, builder, contractor and policy-maker awareness and interest in decarbonization.

Goal 2: Ensure that customers receive a good value from adopting building decarbonization measures.

Goal 3: Ensure that building decarbonization provides a better value to builders and contractors than fossil-fuel heating.

Goal 4: Prepare supply-chains and ensure delivery agents are ready to meet rising demand for carbon-free building technologies with a quality product.

Goal 5: Align Policy to meet other goals.
About this webinar series

This BDC Webinar Series will introduce participants to the main issues addressed in the California Public Utilities Commission's long-time gas system planning proceeding (R.20-01-007), and teach best practices in participating in proceeding discussions.

This proceeding is designed help California plan its gas infrastructure needs as it meets its carbon emissions reductions goals.

• Seven webinars scheduled from 11 am-12 pm on Wednesdays from October 14 to December 16, 2020
• Details of other webinars in this series are at https://bit.ly/BDCGasWebinars (case sensitive)
Coming gas proceeding webinars

• The Utility Perspective on California’s Gas and Electrification Evolution
  • Nov. 11 – Register
  • Speakers: Hannah Kaye, Policy Product Manager at PG&E, and Erica Bowman, Director of Resource & Environmental Planning and Strategy at Southern California Edison

• What California Can Lean From Other States About Long-Term Gas Planning
  • Nov. 18 – Register
  • Speakers: Mark Kresowik, Eastern Region Deputy Director at the Sierra Club; Alice Napoleon, Electric System Policy Analyst at Synapse Energy Economics; and Edward Yim, Energy Policy Advisor at Washington, DC Department of Energy and Environment

• How to Achieve an Equitable Gas Transition
  • Dec. 2 – Register
  • Speakers: Mad Stano, Senior Legal Counsel, The Greenlining Institute

Details of other webinars in this series are at https://bit.ly/BDCGasWebinars (case sensitive)
Webinar Logistics

• Everyone is muted.
• Please ask your questions via chat and we will ask speakers to answer at the end of remarks.
• This webinar is being recorded.
• Members of the Coalition can access the recording, slide deck, and other resources on the Members-Only website.
  • To learn more about membership and how to access this recording and other decarb benefits, visit www.buildingdecarb.org or reach out to Ashleigh at Ashleigh@buildingdecarb.org
Today’s speakers

• Katie Wu, Director, Gridworks

• Michael Colvin, California Energy Director, Environmental Defense Fund
Managing the Transition - Proactive Solutions for Stranded Asset Risk in California

October 28, 2020
About Environmental Defense Fund
Guided by science and economics, we tackle urgent threats with practical solutions

EDF is a 501(c)(3) nonprofit organization.

Our people: We’re one of the world’s largest environmental organizations, with more than two million members and a staff of over 700 scientists, economists, policy experts, and other professionals around the world. We have over 400,000 active members in California.

Our values: We believe prosperity and environmental stewardship must go hand in hand. We’re optimists, because we have seen our ideas make a huge difference. And we build strong partnerships across interests to ensure lasting success. See more on our mission and values.

Our focus: We achieve results by finding solutions that benefit people while protecting natural systems.
Why Decarbonize?

- Climate Change
- Cleaner Air
- High quality jobs
- New homes are more affordable
- Homes are more comfortable, modern
That all sounds great, so what’s the catch?

1) Can all of California decarbonize?
2) What about the stuff left in the ground?
CA Gas System

- Residential: 429.8 bcf
- Industry: 338.2 bcf
- Commercial: 209.2 bcf
“Used and Useful”

• In order to recover infrastructure funds from its customers, utility needs to demonstrate:

1. Asset is providing physical service (used)

2. Without asset, costs would be higher or the quality of service would be lower (useful)
Overview of “Used and Useful”

Utilization of Asset

- Actual Utilization or Volume
- Planned Utilization or Volume

Time

- Today
- No Longer “Used and Useful”
- Planned End of Useful Life
Overview of Stranded Value

Value to be Recovered (% of Original Investment)

Today

No Longer “Used and “Useful”

Planned End of Useful Life

Transition

Stranded Value

Asset Value Already Recovered

Asset Value to be Recovered
Targeting Electrification

Source: E3

**Untargeted Electrification**
(No retirements)

**Targeted Electrification**
(Targeted retirements)

Mixed fuel house
(Natural gas and electric)

All electric house
Without a managed gas transition, projected gas rates in 2050 are 5x more than they could be with a managed transition plan.
Some Concluding Thoughts

• Approximately 1/3 of Californians cannot afford their utility bill – so we need to ensure reasonable rates

• Rate increases are not universally felt – 5% change means a lot when considering affordability

• We need a massive amount of new investment in clean energy infrastructure to meet our 2045 goals
  – Ratemaking is generally reliable and gives investors confidence which in turn lowers risk premium – affordable

• Changes to ratemaking to EXISTING infrastructure can be different than FUTURE investments

• Think about societal and equity impacts of ratemaking – not all customers are the same
Recommendations

• We need to development adoption strategies for a variety of building stock
  – Renters
  – Middle Income

• Role for high integrity alternative fuels for when electrification is not possible
  – Short term vs Long Term
  – Res vs. Non-Res

• How do we “learn” and not “overpay” – iteration comes at a price
Contact

Our Speakers today:
Panama Bartholomy, Building Decarbonization Coalition at panama@buildingdecarb.org

Katie Wu, Gridworks at katiiewu@gridworks.org

Michael Colvin, EDF at mcolvin@edf.org

Learn more about the series and BDC’s advocacy action plan for the Gas Proceeding
Michelle Vigen Ralston, Common Spark Consulting at michelle@common-spark.com

Learn about membership with the BDC
Ashleigh Spurgeon, Building Decarbonization Coalition at ashleigh@buildingdecarb.org
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Join us!

Buildingdecarb.org/join