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DEPARTMENT OF PUBLIC SERVICE

Vermont Energy Code Collaborative Residential Meeting #1

May 13, 2021
3:00 – 5:00

ENERGY FUTURES GROUP

Cx associates LLC

Guidehouse

nbi new buildings institute

Meeting Agenda

1. Overview
2. Background and Goals of the Collaborative
   a. Introductions
   b. Residential Committee topics
   c. Meeting schedule
   d. Ground rules, logistics, and use of chat
3. Results of survey
4. Challenging aspects of 2020 RBES
5. Errors to address in 2020 RBES
6. How to improve efficiency of log homes?
7. How should we address solar requirements for sites with inadequate solar access?

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Background & Goals

- Not enough time to go into depth during the three-year energy code update cycle
- This is your opportunity to dive into critical topics in more depth
- Listening and gathering information to inform decisions
  - Hoping for diverse set of perspectives and opinions
- PSD is the ultimate decision-maker…
- But feedback and input are essential
- Discuss and provide multiple points of view, don't need to reach consensus
- Clarify difference between Code Collaborative and Code Advisory Committee

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Code Team: Who

- Lead State Agency
  - Public Service Department
    - Kelly Launder: Assistant Director
    - Keith Levenson: Energy Program Specialist
    - Barry Murphy: EM&V Program Manager
- Code Update Lead and Residential Code
  - Energy Futures Group
    - Richard Faesy, Gabrielle Stebbins & Liz Bourguet
- Commercial Code Update
  - Guidehouse Consulting
    - Keith Downes & Stu Slote
  - Cx Associates
    - Eveline Killian
- National Insights
  - New Building Institute
    - Jim Edelson & Mark Lyles

Introductions

- Name
- Business
- Town
- Building Sector

https://pointroadgroup.com/introduce-yourself-virtually-make-strong-impressions/

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Residential Topics

- **First meeting: 2020 RBES and looking forward**
  - Challenging aspects of 2020 RBES
  - Errors to address in 2020 RBES
  - Log homes
  - How should we address solar requirements for sites with inadequate solar access?
- **Second meeting: Path to 2030**
  - Efficiency improvements in the next RBES
  - How to address ventilation?
  - Should the code recognize all electric new construction?

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Meeting Schedule

- Cross Cutting
  - #1 – May 4, 11:00 – 1:00
  - #2 – Week of June 7
- C&I
  - #1 – May 11, 11:00 – 1:00
  - #2 – Week of June 1
  - #3 – Week of June 14
  - Residential
  - #1 – May 13, 3:00 – 5:00
  - #2 – Week of June 14
- Multifamily
  - #1 – Week of June 1

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Ground Rules

- Respectful listening
- Limit comments to less than 2 or 3 minutes
- Give everyone a turn to say something before speaking up again
- Use the chat to ask questions/ clarifications –not for having separate discussions.
- Notes attributed
  - Own what you say or hold back from making a comment
  - Notes out for review before posting

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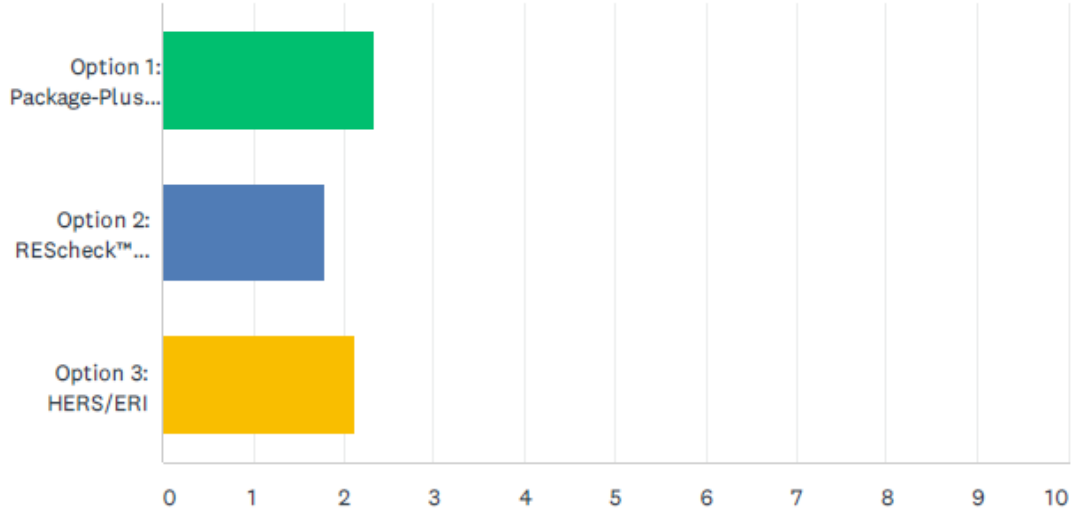
Survey Results

Which compliance paths do you use? (Ranked)



	1	2	3	TOTAL
Option 1: Package-Plus-Points	55.56% 5	22.22% 2	22.22% 2	9
Option 2: REScheck™ software	22.22% 2	33.33% 3	44.44% 4	9
Option 3: HERS/ERI	33.33% 3	44.44% 4	22.22% 2	9

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What 2020 RBES changes did you find most challenging to address?

- "Our designs have been exceeding RBES 2020."
- "Not being able to use dense pack cellulose in closed cavity ceilings... Ventilation is a barrier to retro-fitting existing homes."
- "We have had to internalize the Points system (make them part of our Standard Package) and not give the options to clients. Clients are confused by the choices"
- "Exterior insulation. It has not been thought out for our climate. Many of us do not want to use closed cell foams."

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Are there any errors in the code that need to be addressed? Be specific.

- Several said “don’t know yet” or “it’s a work in progress”
- “Code should be expanded to include analysis of carbon emissions… or at a minimum an emissions-based framework in developing energy reduction targets for code updates.”
- “The lack of enforcement is a really big problem.”
- “Packages are overly simplistic (vs Building Codes are much more detailed and specific)”
- “YES – thin exterior insulation is a problem in our climate.”
- “The RBES has been developed in a pro-active environment that needs to continue.”
- “Not creating a marketable defect in title? Lack of enforcement? Lack of builder registration or licensure.”

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How to further improve the efficiency of log homes?

- Two said stop building them
- “Make them insulate to equivalent R-values at stick-built. No more free passes.”
- “New construction log homes should be held to the same standard as the rest of construction.”
- “They need to have the same ACH50 requirements as all other types of residential construction. If they can't, they should not be allowed to be built.”
- “Begin to see them as part of a regional model.”
- “Stop evaluating them based on R-value and convective heat. They need to be evaluated as a radiant system…”
- “Tough issue. I hate to eliminate an industry, but I don't see how to make a log home [efficient]”

How should we address solar requirements for sites with inadequate solar access?

- Four said **balanced ventilation** should be required
  - "Balanced ventilation should be a base requirement across the board"
  - "Whole-house balanced ventilation with recovery, plus dedicated kitchen range exhaust"
  - "…Balanced ventilation should be required for multi-family."
- Three said **eliminate exhaust-only**
  - "It's time to eliminate exhaust-only in new homes. It's trickier with existing homes."
- Retro-fitting will need to have allowances for site specific creative solutions.
- Passive ventilation, cooling and heating should be encouraged.

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Future Surveys

- We will provide additional surveys on specific topics as warranted

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Challenging Aspects of 2020 RBES

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Background Information and Discussion Questions

- TBD

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Errors to Address in 2020 RBES

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Background Information and Discussion Questions

- TBD

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Improve Efficiency of Log Homes

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Background Information and Discussion Questions

- TBD

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Solar Requirements for Sites with Inadequate Solar Access

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Background Information and Discussion Questions

- TBD

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Thank You for Participating!

- Next Residential Committee Meeting info here

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