IECC/DGC Energy Committee Offline Hearing #2
March 29, 2022

1. Attendees:

<table>
<thead>
<tr>
<th>Name of CCD Committee Member</th>
<th>Organization</th>
<th>In Attendance?</th>
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</thead>
<tbody>
<tr>
<td>Carol Pafford</td>
<td>City and County of Denver (CCD)</td>
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<tr>
<td>Christy Collins</td>
<td>CCD</td>
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<tr>
<td>Chuck Bartel</td>
<td>CCD</td>
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<tr>
<td>Allen Yanong</td>
<td>CCD</td>
<td>X</td>
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<tr>
<td>Courtney Anderson</td>
<td>CCD</td>
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<tr>
<td>Eric Browning</td>
<td>CCD</td>
<td>X</td>
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<tr>
<td>Adam Lyons</td>
<td>CCD</td>
<td>X</td>
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<td>Mike Walton</td>
<td>CCD</td>
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<td>Paul Schaffer</td>
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<td>Robert Pruett</td>
<td>CCD</td>
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<tr>
<td>Antonio Navarra</td>
<td>CCD</td>
<td>X</td>
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<td>Tom Gleason</td>
<td>CCD</td>
<td>X</td>
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<tr>
<td>Robby Schwarz</td>
<td>BUILDTank Inc.</td>
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<tr>
<td>Bill Rectanus</td>
<td>Thrive Home Builders</td>
<td>X</td>
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<tr>
<td>John Burns</td>
<td>StanTec</td>
<td>X</td>
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<tr>
<td>Jeff Slaugh</td>
<td>EcoLogic</td>
<td>X</td>
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<td>Kevin Eronimous</td>
<td>SAR Architects</td>
<td>X</td>
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2. Meeting purpose: Purpose is to review proposals that will not have time to be heard in the main committees. These proposals still have value to moving the code towards Denver's goals. These meetings are optional for all code committee members. Agendas, recordings, and minutes will be posted to the website. Proposals that are recommended to City Council during these offline meetings will be brought to City Council as a separate and distinguished package from those voted on in the formal committee hearings.

3. Discussion of the following IECC/DGC Energy proposals:
   - #49 R404.5 Solar Ready; Noresco/Denver
   - #102 R401.3 Certificate; Noresco/Denver
   - #77.1 DGC 401.7 Drain water heat recovery units; Noresco/Denver
   - #13.1 R501, R502, R503 Existing Buildings Chapter 5
   - #17 R402.2.10 Crawl Walls; Noresco/Denver
   - #P24.4 R402.2.9 (IRC N1102.2.9) Basement walls
   - #P20.1 Table R402.4.1.1
   - #P24.1 C105 - 3rd Party inspection agencies
4. **#49 – R04.5 Solar Ready**

**Discussion:**
- Proponent: BUILDTank/Noresco
- This proposal is not asking that or requiring that a home have solar but is listing out provisions to make the home ready to receive solar sometime in the future there. So it lists out the different requirements for how to adequately provide the house, the resources it needs to get solar in the future and install those things at a time where it makes sense to install it during the new construction period.
- The group is supportive of moving forward with this proposal as drafted. No one opposed

**Action Item:**
- Move forward with proposal as drafted – Noresco to move this proposal forward

5. **#102 – R401.3 Certificate**

**Discussion:**
- Proponent: BUILDTank/Noresco
- Changes made to make sure this proposal works better for Denver. Certificate tracks house, not owners of the house. If house changes hands, new owners know what work has been done and the certificate will be provided at time of final inspection
- Comments: Seems like we’re codifying policy and making it easier to enforce.
- The group is supportive of moving forward with this proposal as drafted. No one opposed

**Action Item:**
- Move forward with proposal as drafted – Noresco move this proposal forward

6. **#77.1 – DCG 401.7 Drain Water Heat Recovery Units**

**Discussion:**
- Proponent: BUILDTank/Noresco
- Robby/Proponent: Drain water heat recovery is proven technology ready to be moved to DGC so we can get experience in field and see how this can help us meet our goals.
- Comments: Bottom half of proposal pulled straight from IECC committees, so numbers have been vetted at a national level.
- The group is supportive of moving forward with this proposal as drafted. No one opposed
Action Items:

- Move forward with proposal as drafted – Noresco move this proposal forward


Discussion:
- Proponent: BUILDTank/Noresco
- Robby/Proponent: This will allow us to be able to benchmark the efficiency of homes and their trajectory towards net zero energy. Also gives Denver the option for approved 3rd part to do inspections for energy upgrades or additions. Also requires high efficiency lighting from the new homes section into the existing homes section for alterations.
- The group is supportive of moving forward with this proposal as revised. No one opposed

Action Items:

- Move forward with proposal as revised – Noresco move this proposal forward

8. **#17** – R402.2.10. Crawl Space Walls – How to install crawl space insulation

Discussion:
- Proponent: BUILDTank/Noesco
- Robby/Proponent: Requirements on how you install a feature that is required by code whether using performance or prescriptive path
- How to install crawl space insulation – this proposal is a slight change to address insulation installed on interior and exterior walls to ensure insulation is installed correctly and covering the full crawl space wall.
- It requested that Robby share energy modeling information for group to review to better understand proposal if it makes sense to remove horizontal insulation piece of proposal

Action Items:

- Robby Schwarz to send energy modeling information to group to review merits of horizontal insulation removal and continue to consider proposal. To be heard again in future offline hearing.

9. **#P24.4** – R402.2.9 (IRC N1102.2.9) Basement Walls
Discussion:
- Proponent: BUILDTank Inc.
- Robby/Proponent: Floor insulation required wherever you have a conditioned pace separating an unconditioned space. Making clear that new section R402.2.0.7 would be a requirement for basements. Also makes sure the entirety of the foundation wall is covered with insulation.

Action Items:
- Robby Schwarz to re-review proposal as relates to the 2021 language and determine if we even need a proposal for this. If so, Robby will come back with edited language.

10. #P20.1 – Table R402.4.1.1

Discussion:
- Proponent: BUILDTank Inc.
- Robby/Proponent: Table to help ensure that builders are successful at achieving requirements of air changes per hour in our climate zone. Clarification of language to make it clear of what needs to be installed and refers back to section 402 to ensure continuity between that section and this table. Makes clear that we’re using air barriers to separate conditioned space from unconditioned space.
- Robby/Proponent: overall goal is to ensure that this table is utilized well in the field by the trade partners and builders that are using it to ensure that they're meeting their 3 ACH requirement and to ensure that it's understandable for proper enforcement as well.
- The group is supportive of moving forward with this proposal as revised. No one opposed

Action Items:
- Move forward with proposal as revised – N oresco move this proposal forward

11. #P24.1 – C105 - 3rd Party inspection agencies - to be discussed at a later date