Commercial Prescriptive Path and Renewables Working Group
Meeting #1
May 17th, 2022
3 p.m. – 4 p.m.

1. Introductions:
   a. CASR: Katrina Managan, Courtney Anderson, Jonny Rogers, Sharon Jaye
   b. CPD: Eric Browning, Chuck B, Robert Pruett, Antonio Navarra
   c. Attendees: Sean Denniston (NBI), Elizabeth Gillmor (Energetics), Ian Wilson (4240 Architecture)

2. Review of Denver’s Goals and Related Policies:
   a. C406
   b. Renewables

3. Introduce Proposals:
   a. #6: C406 Calibrate to Denver’s Goals
      • Changes stringency
      • 1. Makes C406 Denver specific; condenses into single table for single climate zone
      • 2. Instead of requiring 10 points, it sets separate credit targets for different building types; Different building types are either closer or further away from NZE goals, so it sets different building type targets;
      • 3. Encourages electrification; All electric buildings would need to meet just 10 credits.
   b. C406 related proposals
      • These proposals don’t add stringency, they add flexibility
      • #10 Remove Credit limit for premium cooling
      • #12 Premium Air tightness
      • #16 Enhanced Envelop UA
      • #101 C406 Electrification Option
      • #8 Premium Heating
   c. #4: IECC C103.2 – Minimum Renewables
• There's interaction between C406 and renewables proposal; Impact of this proposal is substantial

• Starts with series of definitions and based largely on 2024 IECC proposal moving forward now

• Documentation requirements

• Create requirement that 20% of buildings annual energy use; May not be possible or feasible on some buildings
  • Exemptions
    • 1. All-electric properties
    • 2. Buildings that achieve more efficiency measures
    • 3. Off-site
  • Different energy uses for different building types
  • A project can comply prescriptively through C407
  • Mutually exclusive with other locations with renewable energy; no double counting
    • C406
    • High output water heating systems

4. Summary of topics discussed:
   a. C406:
      • Calibration/Stringency
        • Each credit is worth .25% of efficiency gains
      • Elizabeth –
        • Can we focus on base code and not DGC?
          • Eric – DGC sets a higher standard. We would vote on them separately. If language of IECC is not approved, there would be revisions to DGC
        • Hard to know how this will fit in with everything else; Should be last; without understanding foundation that it will be resting on; C407 and renewables
      • No problem with the structure itself
      • Group B aligns with model code; What are we getting from Denver? Where do Group R & I come from and differ from model code?
      • Doesn't see the relationship of midrise vs highrise vs hotels?
• Sean
  • Comes from NZE Implementation Plan
  • Sean – IECC doesn’t deliver same level of performance in different buildings; Other buildings have not
  • NZE Implementation plan did an analysis of stringency of building types and different buildings types will need to improve at different rates to end up at Denver’s ultimate goal.

• Why are we calculating 53 for mid-rise?
• *Get under the hood of calculations
  • Elizabeth wants spreadsheets on how calculations were done Chuck – need more detail
  • All other category incorporates a lot of building types
  • Agrees R buildings have big credit discrepancies
  • In the ‘all other occupancies’ we’re not giving electrification credit options for doing partial electric
  • Katrina – it sounds like we should hear about other proposals first
    • Elizabeth – C406.5.1 - would we match this with Renewables?
  • Can send data from Implementation Plan to broader group (including EM)
    • Email out so people can review at their leisure
    • Post publicly
  • Elizabeth – clarify to committee if we are mandated to achieve these goals or if we’re deciding on if goals can be met
    • Katrina – end of the day, committee is trying to strike that balance
    • How do we help committee inform discussion?
      • Elizabeth – Example of renewables – find a number that is achievable

b. Renewables
  • Jonny – get to something attainable; what percent required;
    • Near term carbon benefit is substantial; In the long run electrification
is going to have most significant impact; onsite requirement is reflective of long term sustainable grid operations;

• What role to distributed renewables play?

• Incentivize electrification

• Availability of off-site
  
  • Jonny – anticipate off-site renewables being available

• Elizabeth -
  
  • Mandatory solar requirement in Boulder; 5% energy offset and it’s hard; did an analysis of 3 story MF building, to get 5% offset, they’ll likely not be able to get under 100kw to get 5%
  
  • **Kw/sf/year calculations do not align with 20% of annual energy use
  
  • Not a fan of mandating; prefer renewable energy goes into C406 and C407;
  
  • Unintended consequence of Boulder; Owners always compare building upgrade to what is solar offset?
  
  • *Does not believe 20% is right number
  
  • Elizabeth has been trying to use GBO off-site solar requirements and it’s not available
  
  • Antonio – how achievable is this and compare globally?

  • Chuck – substantiation behind number
    
    • *Where did 20% come from? Just to meet goals?
      
      • Feasibility across building types? What is the cost of on-site vs offsite?
  
  • Off-site was an off-site asset

5. Detailed Notes of Discussions/Questions

  a. Other Topics/Discussions
  
  b. Next steps/upcoming meeting topics:
    
    • 5/31: Focus on refining proposals

    *Meeting adjourned*