

Introduction to the 2018 International Green Construction Code (IgCC)

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Montgomery County's Holistic Approach to Achieve Net Zero Energy Buildings

- Montgomery County has targets to reduce greenhouse gas emissions 80% by 2027 and 100% by 2035. The building sector comprises 50% of the County's community-wide greenhouse gas emissions. The building sector calls for focused attention to reach net zero energy.
- The 2018 IgCC is an important tool in the multi-faceted approach that Montgomery County is pursuing to achieve net zero energy buildings.
- The 2018 IgCC, as submitted in the August 2020 Register, includes:
 - Solar PV options
 - Energy modeling options
 - Increased stringency
 - Building design improvements
- Other tools that the County is pursuing to achieve net zero energy buildings include:
 - Increased stringency in the International Energy Conservation Code for residential buildings
 - Development of a Building Energy Performance Standard to improve energy performance in existing commercial and multi-family buildings

Scope of the 2018 IgCC

- The Montgomery County 2018 IgCC code, as proposed in the Register, applies only to the following project types:
 - New Commercial construction over 5,000 square feet
 - This includes new portions over 5,000 SF of an existing building
 - This includes mixed use multi-family
- **Excluded** from the Montgomery County 2018 IgCC:
 - Single family residential
 - Group R-4 occupancy buildings net exceeding 16 residents
 - Examples: small assisted living facility, group home, daycare

The IgCC, as proposed in the August 2020 Register

- The informal stakeholder consultation period took place from Fall 2019 to Spring 2020 and included feedback from Montgomery County agencies and public constituents.
- DPS received a hundreds of comments, summarized in the tables in the Appendix slides.
- DPS incorporated the informal stakeholder comments by amending 5 chapters in addition to the appendices.
- The County Attorney's Office determined that an additional set of amendments were required due to DPS limited authority

Amendment Overview and examples

1 Scope and Administration

- Primarily change of language for AHJ (Authority Having Jurisdiction)

3 Definitions

- Edits/additions to definitions

5 Site Sustainability

- Clarifies stormwater management responsibilities
- Removed right of way measures, use restrictive measures, and other zoning related items

6 Water Use Efficiency

- Removed measures where WSSC is the AHJ
- Allows for installation of hose bib on green roof

7 Energy Efficiency

- Adds energy model language
- Specifies local renewable energy credit purchase

8 IEQ and 9 Materials and Resources

- Removed measures where other agencies are identified as the AHJ

10 Construction and Plans of Operation

- clarified record management language
- Removed measures applicable after occupancy and use certificate issuance

Appendices

- Adoption of specific appendices
- Deletes language regarding single family dwellings

Green Building Team Goals

- Data collection and reporting tools
 - Update compliance tools
 - Provide pre-design meetings
 - Outreach process for adoption period
- Code commentary for complex measures
 - Methodology for creating and publishing code interpretations
- Staff cross training
 - All GB capable of performing IgCC reviews
 - Collaborate with inspections

Appendix:

Informal Stakeholder Comments

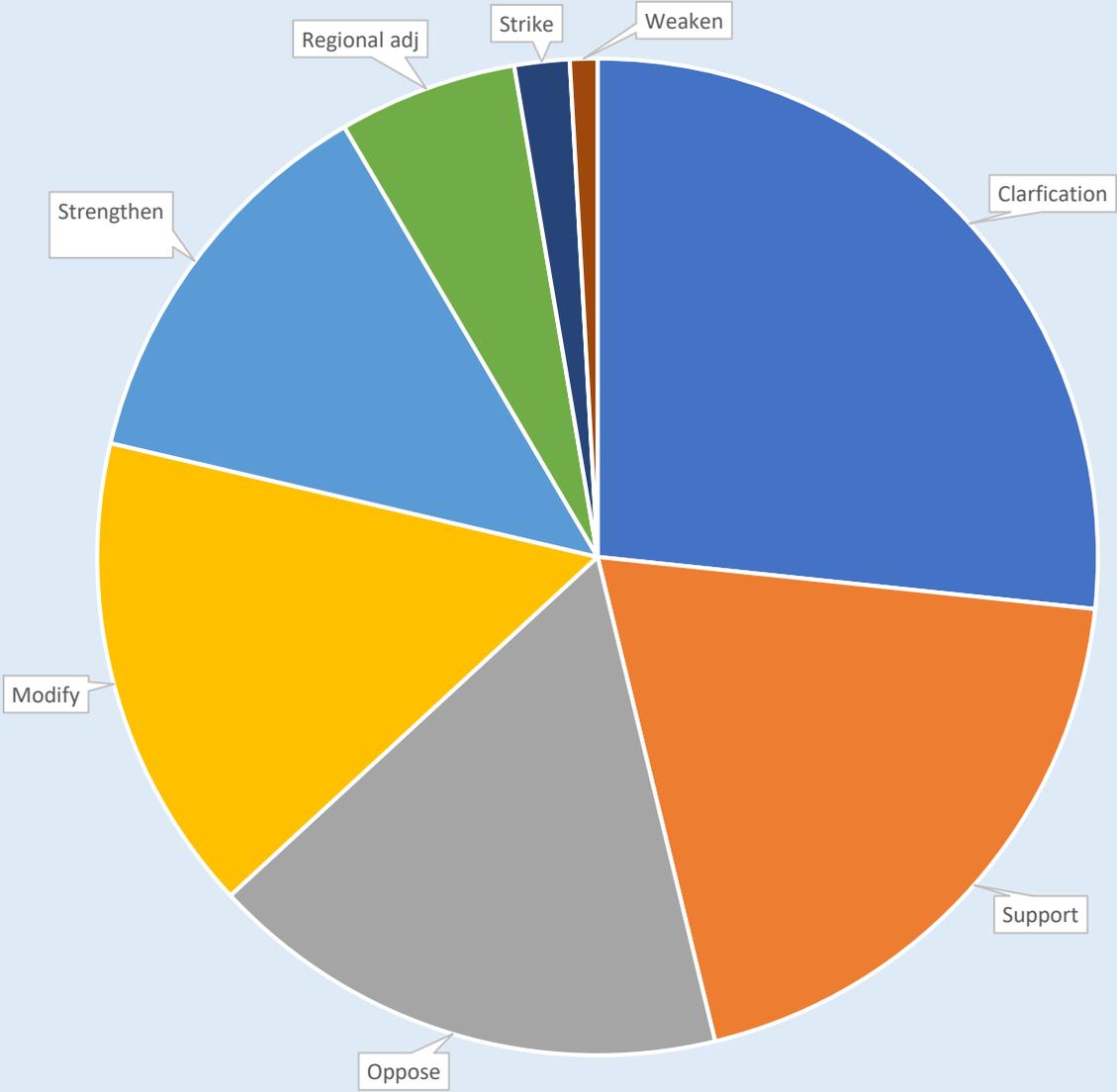
Definitions of Comment Types Received in the Informal Stakeholder Period

- **Clarification:** More information is needed such as code commentary or official DPS interpretation.
- **Support:** Code measure is supported as is by one or more entity.
- **Modify:** A modification to the code measure has been suggested. This borders either strengthening or weakening a measure. Often it adds additional language to a given measure.
- **Oppose:** Code measure is not supported by one or more entity. Often removal of the measure is suggested. Reasons range from cost, complexity, professional opinion.
- **Strengthen:** An increase in stringency is suggested.
- **Strike:** DPS staff has determined a measure to be out of scope of jurisdiction, overruled by other code/ordinance, not applicable to jurisdiction, or maintains alignment with 2012 methods.
- **Regional Adjustment:** Often this comment references information that is determined by a sister department, state, or regional requirement. Some regional adjustment comments require additional collaboration. This may result in opposition of the measure.
- **Weaken:** A decrease in stringency is suggested.

Informal Stakeholder Comment Category Breakdown

Comment Type

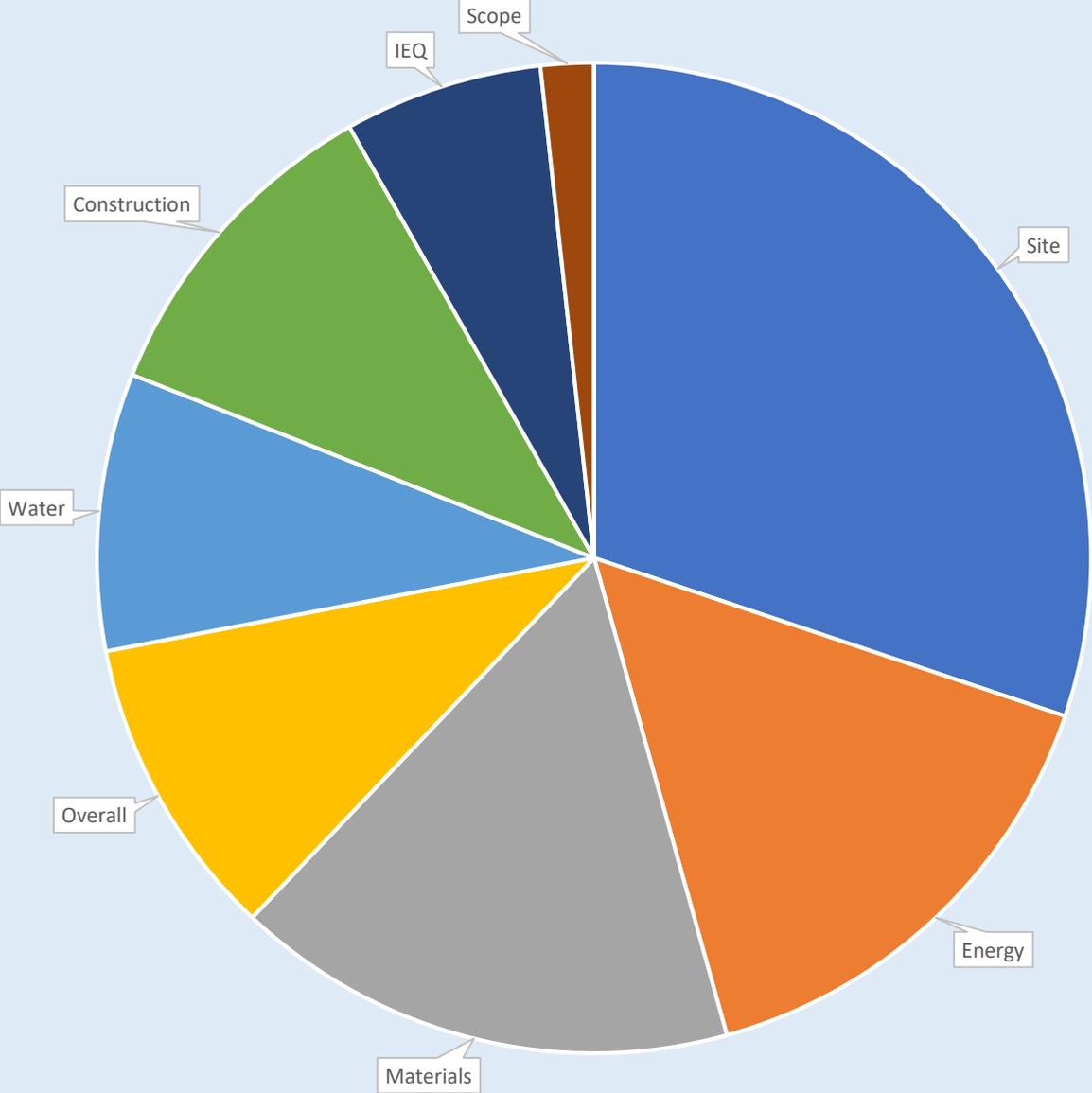
| Category | % of total |
|---------------|------------|
| Clarification | 26.7% |
| Support | 19.6% |
| Oppose | 16.9% |
| Modify | 15.6% |
| Strengthen | 12.9% |
| Regional adj | 5.8% |
| Strike | 1.8% |
| Weaken | 0.9% |



IgCC Chapters

| Chapter | % of total |
|--------------|------------|
| Site | 30.2% |
| Materials | 16.4% |
| Energy | 15.5% |
| Construction | 10.8% |
| Overall | 9.9% |
| Water | 9.1% |
| IEQ | 6.5% |
| Scope | 1.7% |

Informal Stakeholder Comments by Chapter



| Misc. IgCC | | Chapter 1 Scope | | Chapter 3 Definitions | | Chapter 5 Site | | Chapter 6 Water | |
|------------------|----|-----------------|---|-----------------------|----|-------------------------|----|-----------------|---|
| Clarification | 7 | Clarification | 0 | Clarification | 0 | Clarification | 26 | Clarification | 5 |
| Support | 4 | Support | 1 | Support | 0 | Support | 10 | Support | 2 |
| Modify | 5 | Modify | 0 | Modify | 0 | Modify | 9 | Modify | 0 |
| Oppose | 5 | Oppose | 0 | Oppose | 0 | Oppose | 8 | Oppose | 9 |
| Strengthen | 0 | Strengthen | 0 | Strengthen | 0 | Strengthen | 12 | Strengthen | 2 |
| Strike | 0 | Strike | 0 | Strike | 0 | Strike | 0 | Strike | 3 |
| Regional adj | 1 | Regional adj | 0 | Regional adj | 0 | Regional adj | 4 | Regional adj | 0 |
| Weaken | 0 | Weaken | 1 | Weaken | 0 | Weaken | 0 | Weaken | 0 |
| | | | | | | | | | |
| | | | | | | | | | |
| Chapter 7 Energy | | Chapter 8 IEQ | | Chapter 9 Materials | | Chapter 10 Construction | | | |
| Clarification | 11 | Clarification | 3 | Clarification | 2 | Clarification | 6 | | |
| Support | 3 | Support | 3 | Support | 14 | Support | 7 | | |
| Modify | 10 | Modify | 2 | Modify | 10 | Modify | 1 | | |
| Oppose | 7 | Oppose | 1 | Oppose | 0 | Oppose | 7 | | |
| Strengthen | 4 | Strengthen | 3 | Strengthen | 4 | Strengthen | 3 | | |
| Strike | 0 | Strike | 1 | Strike | 0 | Strike | 0 | | |
| Regional adj | 0 | Regional adj | 2 | Regional adj | 6 | Regional adj | 0 | | |
| Weaken | 1 | Weaken | 0 | Weaken | 0 | Weaken | 0 | | |