



# Building Performance Improvement Board

**7/19/2023**

Learn more at <https://www.montgomerycountymd.gov/green/energy/beps.html>

# Agenda

- **Administrative items**
- **BPIB BEPS Regulations Summary Report discussion and vote**
- **Introduction to New DEP Senior Engineer**
- **Benchmarking Compliance Update**
- **BEPS Regulations Update**
- **State Building Energy Initiatives Update**
- **Building Codes Updates**



## Administrative Items

# Actions

- Approve 6/7 meeting notes



# **BPIB BEPS Regulations Summary Report**

# Actions

- Draft BPIB BEPS Regulations Summary Report circulated to members in advance of meeting
- Accepted basic changes related to wording or grammar
- Several clarification comments to review



# Introduction to New DEP Senior Engineer



# Benchmarking Compliance Update



# Benchmarking Compliance to Date

% reported or requesting extension:

**2018: 65%**

- County = 100%
- Group 1 = 72%
- Group 2 = 63%

**2019: 93%**

- County = 100%
- Group 1 = 98%
- Group 2 = 92%

**2020: 93%**

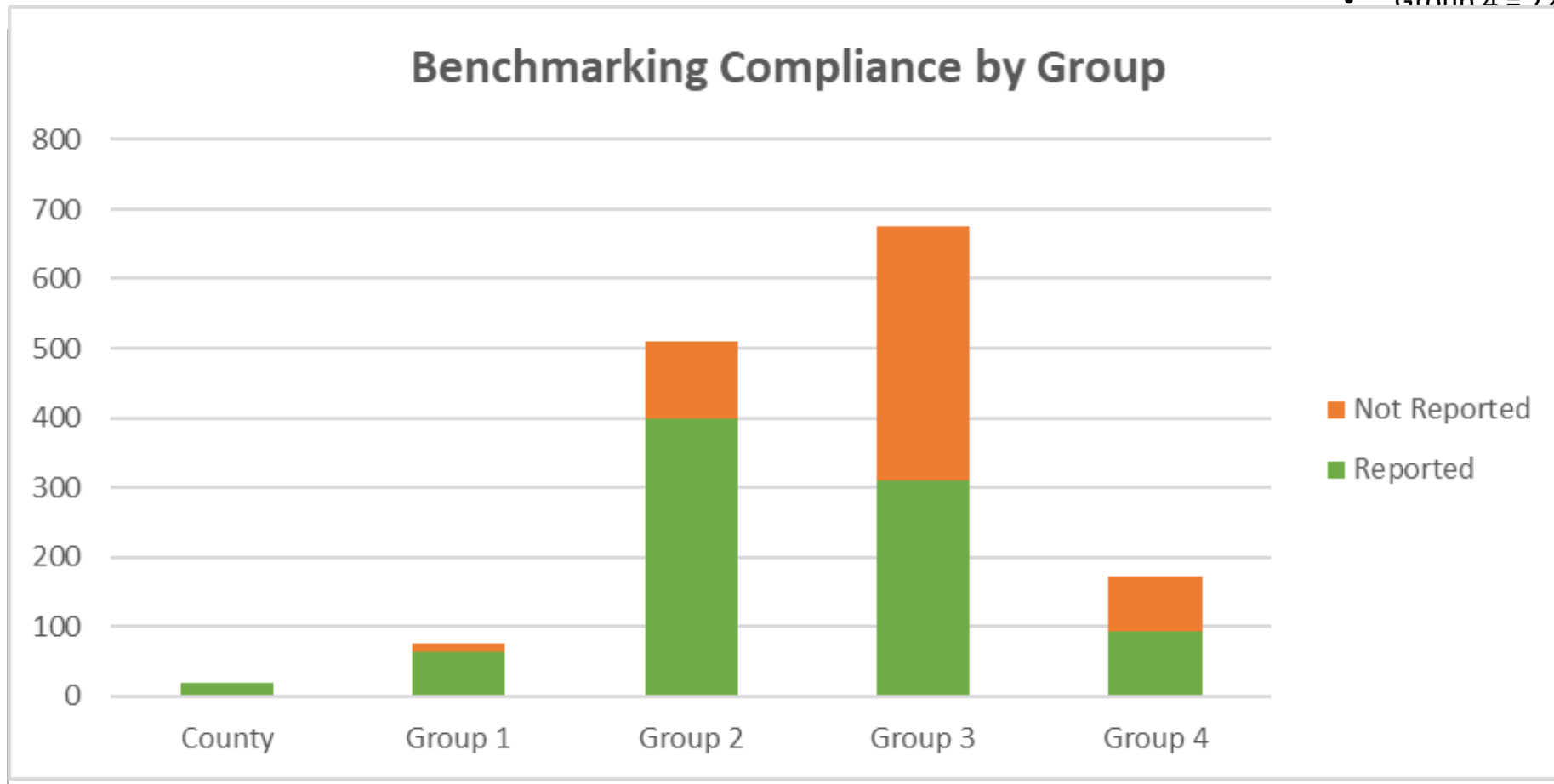
- County = 100%
- Group 1 = 98%
- Group 2 = 92%

**2021: 91%**

- County = 100%
- Group 1 = 96%
- Group 2 = 90%

**2022: 70%**

- County = 100%
- Group 1 = 87%
- Group 2 = 84%
- Group 3 = 57%
- Group 4 = 72%



# Benchmarking Follow-Up

- Notice of Violation letters mailed to Group 1 and 2 buildings on 7/15. Citations will be issued in mid-August/early September for buildings still not reported.
- Notice of Non-Compliance letters mailed to Group 3 and 4 buildings on 7/15. Notice of Violation letters will be issued in mid-August/early September for buildings still not reported.
- 10% of the buildings are in “pending revision” status meaning there is something they need to correct before DEP will consider the report “in compliance”



# BEPS Regulations Update

# MDE Regulations

- MDE completed a draft regulation in March 2023. From May 15 through June 5, 2023, MDE shared its draft Maryland BEPS and invited stakeholders to provide comments
- MDE to present the draft regs to the Air Quality Control Advisory Council (AQCAC) in September
  - AQCAC gives the Department its advice on proposals by recommending adoption, rejection or modification of the draft regulations or other matters brought before it.
- There will be another opportunity to submit comments when the proposed regulation is published in the Maryland Register in the Fall of this year.
- PNNL analysis of cost of State BEPS compliance coming soon

# County Regulations

- DEP staff provided a presentation to Council staff on June 28
- Continuing to draft regulations and technical guidance



# State Building Energy Initiatives Update

# Building Energy Transition Implementation Task Force

<https://mde.maryland.gov/programs/air/ClimateChange/Pages/BETITF.aspx>

- MDE required by the Climate Solutions Now Act of 2022 to create the task force
- Covers the following topics:
  - Funding plan for retrofit of covered buildings to comply with Building Energy Performance Standards
  - Incentives for electrification projects
  - Commercial tax credits or direct subsidy payments for decarbonization projects
  - Incentives through EmPOWER and other state programs for electrification
  - Low-income household holistic retrofit targets
  - Heat pump sales targets
  - On-bill, low-interest financing
- Co-Chairs:
  - Secretary Serena McIlwain, MD Secretary of the Environment
  - Director Paul Pinsky, The Maryland Energy Administration (MEA) Director
- Full membership here: <https://mde.maryland.gov/programs/air/ClimateChange/Pages/BETITF-Members.aspx>
- Working with the Institute for Market Transformation, who will write task force report

# First Task Force meeting – June 29, 2023

- Presentations and minutes at Task Force link
- Current building stock
  - 30% of covered buildings meet GHG targets
  - 30% of covered buildings meet EUI targets (not same 30%)
  - Almost all buildings will need work to hit both targets
- MD GHG plan due in Dec, 2023
- A couple of presentations on Federal tax incentives and rebates
- Climate Energy Hub being built to provide tech and funding resource assistance to building owners (Eric Coffman, MEA)
- Subgroups being assembled
  - Large Buildings Covered by BEPS
  - Small Commercial and Institution Buildings NOT Covered by BEPS
  - Market-Rate Housing NOT Covered by BEPS (single family and small multifamily)
  - Limited-Income Housing (Covered & Not Covered by BEPS) (subsidized AND naturally-occurring affordable housing)
- Comments from MD staff
  - Fines for not complying could reach \$100K, still less than cost of complying
  - One possible outcome of TF is that the necessary programs already exist, but there is insufficient funding.
- Next meeting: Thursday, July 27 (monthly)





## Other State-Level Initiatives

- **EmPOWER Maryland & Utility Rate Plans**
  - Utilities and DHCD filing plans for the 2024-2026 EmPOWER program cycle on August 1st
  - Multiple utilities have filed rate plans including incentives for building electrification
- **Public Service Commission Electrification Study**
  - Evaluating impact of electrification scenarios to inform policy

# Other State-Level Initiatives

- **Maryland Climate Pathways Report**

- MDE developing State's GHG reduction plan
- Draft released June 30th. Listening sessions July - September
- [www.marylandsclimatepathway.com](http://www.marylandsclimatepathway.com)

	Improve building efficiency	<ul style="list-style-type: none"><li>• Implement Building Energy Performance Standards and EmPOWER program</li><li>• Implement and raise awareness of IRA incentives, including consumer tax credits for energy efficiency and clean energy upgrades</li><li>• Set enhanced standards for new buildings</li></ul>
	Electrify all appliances	<ul style="list-style-type: none"><li>• Set zero-emission appliance standards</li><li>• Set clean heat standards</li><li>• Set all-electric construction standards</li></ul>



# Building Codes Updates

*2021 IECC also known as the:*

# 2023 Montgomery County amended IECC

- Adoption process
- Layout of the code
- Amendment recommendations
  - Impacted by the CAP
- Hot topics
  - Electrification
  - NZE
- Looking forward



**Code amendments**

**2021 Code Cycle**

- Electrification ready new construction
- Advanced Electric Vehicle charging ready
- Additional supporting amendments

**2024 Code Cycle**

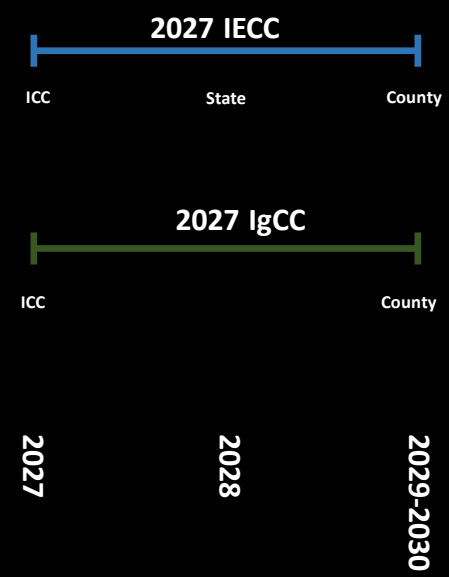
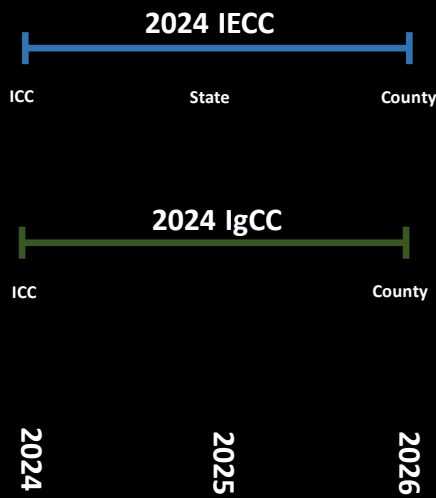
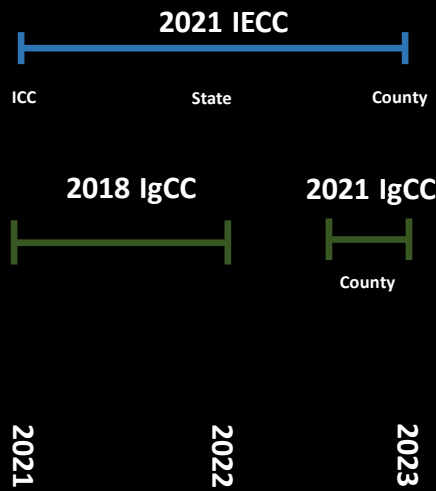
- All electric in new construction  
Electrification ready in level 3 alteration
- Additional Electrical Vehicle Charging requirements

**2027 Code Cycle**

- All electric in all construction
- Supporting amendments

Refinement cycle

**adoption timelines**



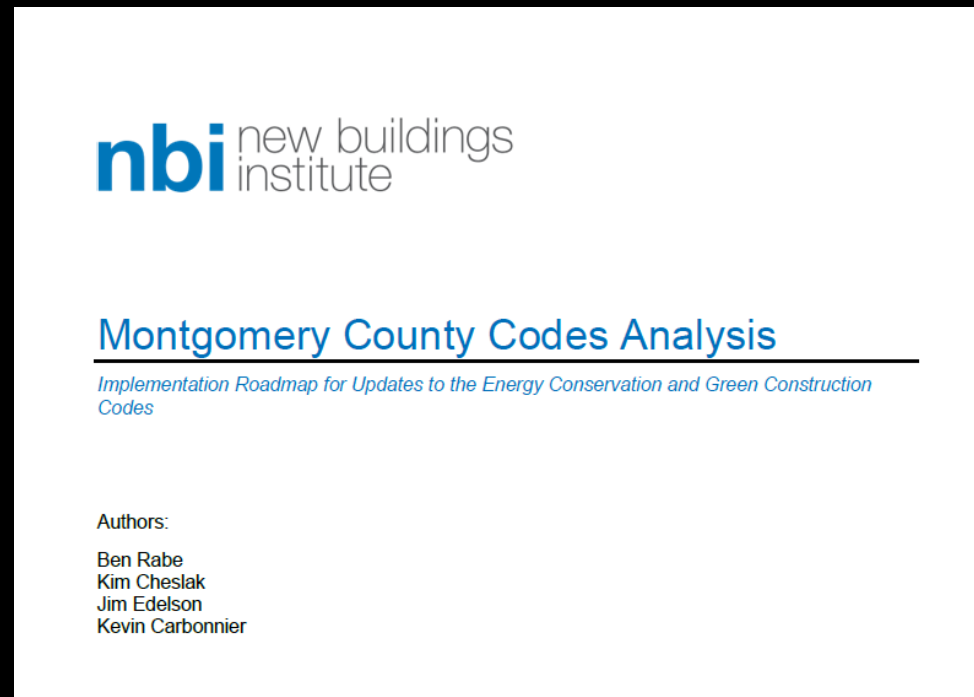
# Code book format

- Commercial Provisions
  - C405
  - Performance vs prescriptive
- Residential Provisions
  - R402
  - Performance vs prescriptive
- Appendix sections
  - To adopt, amend, or N/A

<https://codes.iccsafe.org/content/IECC2021P1>

# IECC Amendment Recommendations

- Based on Climate Action Plan
- Looks out two code cycles
- Key Points:
  - **Energy Efficiency:** zEPI, TSPR, C405, C407
  - **Renewable Energy:** onsite vs offsite
  - **Electrification:** infrastructure, zEPI, TSPR
  - **Grid Integration:** demand response controls
  
- **TSPR:** total system performance ratio (mechanical systems)
- **zEPI:** zero energy performance index (energy modeling), carbon metric
- **Demand response controls:** time of day, dynamic charging, etc.



report

# What to expect 2023/2024

- Natural code cycle improvements
- Suite of CAP focused amendments
- Appendix adoption and potential amendments
  - CC, RC
- 2021 IgCC: full adoption for State owned/operated buildings
  - Potential Montgomery County amendments and adoption
- Two new positions: Energy Code Program Manager and Green Building Code Program Manager
  - More thorough data collection
  - Renewable energy data collection
  - Increased DPS presence during construction
  - Increased commissioning analysis



# ...and beyond...

- IgCC
  - Light pollution reduction
  - Bird friendly buildings
- IECC
  - Net positive buildings
  - Carbon neutral buildings

# Next Meeting

- August 16

# Helpful Links

- [Benchmarking and Performance Standards Law](#)
- [Benchmarking Website](#)
- [BEPS Website](#)
- [Building Performance Improvement Board Website](#) (will include agendas, notes, and presentations)
- [BEPS Stakeholder workgroup + report](#) – completed before bill was introduced to gather stakeholder input on BEPS policy elements
- [BEPS Technical Report](#) – outlines options for site EUI targets by building type group and assesses feasibility and costs in representative case study buildings
  - [Presentation](#) of BEPS Technical Report to Council Transportation & Environment Committee
- [Allowance for Renewable Energy Technical Report and Recommendations](#) - provides information on determining how a renewable energy allowance should be defined and implemented within BEPS regulations
- On weather and business normalization:
  - [EPA technical reference guide on weather normalized energy use](#)
  - [EPA's Recommended Metrics and Normalization Methods for Use in State and Local Building Performance Standards document](#)

## Helpful Links (continued)

- [Maryland Clean Energy Center 10/25 Webinar, Solutions to Achieve Building Energy Performance Standards recording](#)
- [Maryland Department of Environment BEPS page](#)

# Questions?

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## BPIB Webpage

<https://www.montgomerycountymd.gov/green/energy/bpib.html>

## Stay Informed

Check BEPS website for real-time updates:

<https://www.montgomerycountymd.gov/green/energy/beps.html>

Sign up for [Commercial Energy Newsletter](#)



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