NAIOP
MARYLAND CHAPTERS
THE ASSOCIATION FOR COMMERCIAL REAL ESTATE

Document Title: Building Energy Transition Plan	**Document Reference: Discussion Draft**	**Version Dated:** 9/3/21
Originator: MDE Staff and Buildings' Subgroup	**Reviewer: NAIOP Climate and Energy Advisory Group** *Note: These are preliminary comments not including full advisory group or Legislative Committee.*	
Review criteria: • GGRA Emissions and Economic Benefit Goals, • Technically Accurate, • Necessary Level of Clarity and Detail, • Consistency with Source Documents, • Validity of Cross References,	• Consistency with Existing Policy and Laws, • Consistency with Existing Knowledge Base, • Provides Feasible Compliance Options, • Provides Cost-Effective Compliance Options, • Considers Risk Factors and Uncertainty, • Considers Scheduling and Sequencing, • Considers Reasonable Alternatives.	
Date issued for review: **9/3/21**	**Date comments required by:** **9/10/21**	**Issue for use (target date):** TBA
	Type Key: Comment, (C) Recommendation (R) and Information Request (IR)	

Point no.	**Location (page and section)**	**Type**	**Reviewer Notes and Comments**	**Recommendation or Information Request**
1	Page 1 - Background	R	The model run for MDE's 2030 GGRA Plan projected building emissions would be reduced from 12.3mmt in 2020 [5.3mmt Commercial, 7.0mmt Residential] to 7.6mmt in 2050 [3.3mmt Commercial, 4.3mmt Residential]	Text should be amended to be specific about the current total and % of state-wide emissions from buildings and the total and % reductions expected from the 2030 Plan model run and remaining building sector emissions in 2045 and 2050.
2	Page 1 - Background	IR	MDE's 2030 GGRA Plan model run does not appear to measure the reductions from two opportunities - carbon capture at combined heat and power facilities and a clean heat standard /renewable pipeline gas and delivered fuels.	Did the 2030 Plan model run measure these two practices? What would be a realistic range of reductions and remaining RCI emissions in 2045 and 2050 if these two practices were implemented in MDE's 2030 GGRA Plan?
3	Page 1 - Background	IR	The 2030 GGRA Plan consumers spent $4B over 30yrs on capital costs but fuel savings exceeded those costs every year 2020-2050.	To what extent are consumer capital costs recovered by fuel savings in the Building Energy Transition Plan?

4	Page 1 - Background	R	The Buildings' Subgroup did not reach consensus. Buildings' Subgroup statements and E3 report are not in agreement in key areas.	Text should be amended to reflect the lack of consensus coming out of the 2020 Buildings' subgroup.
5	Page 1 - Background	R	The MCCC's 2045 net-zero recommendation is subject to the mid-course check-in and economic benefit test.	Text should be amended to reflect the conditional nature of the net-zero by 2045 recommendation.
6	Page 3 – Lowest Cost Scenario	C	While we support keeping options open, including High Electrification on the short list of options will require more than federal assistance with grid modernization costs. E3 Study indicates $4.4b - $9.7b per year in incremental consumer equipment costs. The cost avoidance measures referenced in the PEPCo filing may avoid costs paid by the utility by shifting them to consumers.	N/A
7	Pages 3 & 4 - Constructionand Retrofit Cost	IR	Not clear what data was used from California study and other sources.	Please provide full references for the data sources used in the bar graphs.
8	Page 4 – Construction and Retrofit Costs	IR	*"Work is ongoing to determine the most cost-effective solutions for decarbonization commercial buildings…"*	Could you please provide more information?
9	Pages 4-7 - Consumer Costs	IR	N/A	Could you please provide details on the method and assumptions used to calculate the annualized capital cost?
10	Pages 4-7 – Consumer Costs	IR	N/A	Could you please provide details on building characteristics in each building type?
11	Pages 4-7 – Consumer Costs	IR	N/A	Could you please provide the total number of existing buildings in each of the broad categories (e.g. large commercial) and the number of buildings assumed in each retrofit scenario?

12	Pages 4-7 – Consumer Costs	R	The construction cost forecasts are based on a predicted 37% decline in commercial heat pump costs between now and 2050. While we agree that technologies will improve and accept future price reductions as one scenario, we do not believe this should the primary policy making scenario. Inflationary pressures on materials, manufacturing, distribution and labor are likely to be influential factors.	MDE should generate cost estimates for an inflationary scenario.
13	Page 11 – All Electric Building Code	C	Decoupling Maryland from national building codes is a major concern for our members and a major undertaking for Maryland. California and Washington have their own building codes but even with years of experience and large staff resources still experience difficulties.	Policy implementation should be based on a logical sequencing of conditions, not calendar dates.
14	Page 11 – All Electric Building Code	R	We are not aware of an all-electric code developed by the national code writing organizations. We have not reviewed the New Building Institute's Building Decarbonization Code but will do so.	MDE should refer the code overlay to the Maryland Building Code Officials Association and the Maryland Green Building for their review.
15	Page 11 – All Electric Building Code	C	A code change in 2024 will affect buildings and developments that have already been designed and approved. Many will have already installed utility infrastructure.	Policy implementation should be based on a logical sequencing of conditions, not calendar dates.
16	Page 11 – All Electric Building Code	C	For some building types and situations there are no electric or dual fuel systems available. Major manufacturers may adjust to meet the demand but that may take more time than the 2024 effective date.	Policy implementation should be based on a logical sequencing of conditions, not calendar dates.
17	Page 11 – All Electric Building Code	IR	Applying an all-electric code to major renovations beginning in 2024 runs counter to the E3's reported benefits of fuel backup and with the technology-neutral flexibility intended for the building emissions standard.	Please clarify the intent of this language.

18	Page 11 – All Electric Building Code	R	N/A	Any training courses on the benefits of all-electric buildings should also include accurate information about the trade-offs and challenges for certain building types.
19	Page 11 – All Electric Building Code	R	The value of solar ready, EV and grid integration infrastructure to building owners and the building owner's equitable cost share is dependent on policy decisions that have not been made.	Whether to mandate these items in the building code should be set aside for separate consideration.
20	Page 11 – Net -Zero Emissions by 2045	R	Depending on the pathway chosen, the GGRA buildings policy will require significant changes to the operations, physical plant and economics in much of the state's building stock.	Before establishing timelines. MDE should consider how many buildings per year can realistically be transformed given available capacity public and private economics.
21	Page 11 – All Electric Building Code	R	Emissions reductions from retiring natural gas heat in buildings depend on replacing the fossil heat with electricity that is less carbon intense. Peak heating hours occur in early morning hours of the winter when renewable electricity generation and heat pump performance are both weak. Policy implementation should be based on a logical sequencing of conditions not calendar dates.	The timing of transition should be sequenced with the ability of utilities to displace fossil heat with low carbon electricity during peak heating hours. MDE should complete the 2020 MWG recommendation that the PSC be consulted on a consensus methodology to evaluate emissions impacts of electrifying buildings so that timing the transition provides promised benefits.
22	Page 13 – Building Emissions Standard	R	The text does not mention offsets or credits as a compliance option. GGRA does contain language allowing the use of these mechanisms under some circumstances.	MDE should allow the use of offsets and carbon credits in as wide a geography as possible. At least within the PJM service territory.
23	Page 19 – Portfolio Approach to Renewable Generation	R	On site solar for multi-story commercial projects is challenging because of policy barriers and the imbalance between rooftop square footage and floor area.	The state should be prioritizing utility scale solar over rooftop. On-site energy generation and sharing of energy among a portfolio of buildings should be incentivized by lifting the limitations on net metering, virtual net metering, and meter aggregation that apply to commercial property.