CONSIDER: Challenges, Existing Resources, Needs

+1

No - rate of conversion of square feet of commercial and multifamily units for heat and hot water is very high.

yes, as long as

training is

remove

bias

provided to

technology

Modify the electrical code, allow for insulating over older wires

No, it's already challenging to find quality vendors to do retrofit work

+1

Currently no, cost

challenge and want

project by individual

will be a huge

to undertake a

owners

mostly yes, though more qualified electricians may be needed - limitations more related to funding

Streamline the

permit process and

get the permitting

the new programs

bottleneck in the

so there is no

process

offices onboard with

of the heat pumps?

we will need to develop programs

determine

manufacturer

What analysis has

been completed to

production capacity

we will need to develop programs within the public schools and the community college systems to help channel students into the trades and IT sectors +1

No, there is a significant shortage in the trade workforce currently.

No, we will have train more people.
Could we train high school graduates in the governor's service year program?

Design considerations and operating skills need to be better understood

Existing workforce is not enough; Concern w/lack of skilled trades education in Fred Co behind 10+ yrs in preparing for furture. Barriers: (e.g. transportation, language, etc.)

Do heat pumps have lower maintenance needs compared to replacement systems? This could be a non-energy/carbon/\$ benefit to emphasize if so.

need training of design professionals, convincing them to move away from the easy answer of gas heat

+1

+1

Revise MDE
interpretation to be
consistent with
Land Use Article Sec
4-210 making clear a
solar panel is
impervious for
SWM, for zoning, etc

Building/facility
engineers are
critical to operating
buildings efficiently.
This is a rapidly
aging sector that
may not be focused
on efficiency, BAS,
etc.

+1

Incentives are needed to generate the additional workforce that is needed

Yes, unless
high
unregulated
energy makes
the target
impossible

Create
electrification
vendor network
similar to utility
service provider
network to
implement EE
programs

Education is needed for the building owners as well to understand the targets and how to comply



Workforce seems to be most comfortable suggesting and installing equipment they are most familiar with

Finance

What financing gaps exist in the market? What building types are likely to use financing if it were avai

CONSIDER: Challenges, Existing Resources, Needs

Provide for State confidentiality provisions for businesses participating (.. MDE should only release aggregated data and the like)

Understanding what financing is available and resources to navigate process to secure

> There are incentives in the market currently that will become more and more limited-BGE programs have limited annual funding. Most buildings will need funding help.

Consider the cost shift dilemma in multifamily when centralized systems on the owner meter are converted to individual tenant systems (there are answers)

Clarify the requirement of landlord/tenant exchange of energy and related GHG emission data and make exchange requirements reciprocal

Government should prepare to provide significant financing, subsidies for the most difficult to convert, least-cost effective buildings.

State and local law should be amended to expand the current commercial PACE to include residential PACE (with appropriate consumer safeguards)

> need to develop effective partnerships with the private sector -- there is plenty of capital available but some

backstop or from govern entities may

Cause the land beneath solar panels to be assessed for real estate taxes at the lowest tax rate and the solar panel structures to be exempt from tax

future

non-monetary

building level.

also need to consider amount of in-house resources owners may have single building owner versus large portfolio or organization

benefits are difficult to monetize at the

Work closely with

entice investors to

nvest in Maryland

vith special loan

Bill

financing

through

utilities

Increase/leverage

IRA green bank

financing

programs

Fannie Mae and

Freddie Mac to

All- gov't, comm, inst, etc Gapscovering cost for electrification beyond heat pump; ie new panel, etc.

Small to Medium projects are challenging--these are often paid for via cash reserves and done while a building is in operation, so revenue is likely to stay flat post-install

Enact a state and local government 100% property tax credit for buildings achieving LEED Zero Energy certification (or the like, as regulated by the MD Green **Building Council)**

Exempt from transfer and recording tax net zero energy buildings (i.e., LEED Zero Energy or the like, per MD Green Building Council) through 2029

> Cost of compliance for difficult to mitigate buildings can be lowered through use of offsets, credits and / or a prescriptive pathway.

More green investing resources need to be accessible in the state. Conventional financing packages even with government support may not work for all owners

MEA grants, MDHCD

utility incentives are

all possible funding

Allow reporting to

MDE by secure and

confidential means,

including not over

the Internet and by

paper copy

Counties may impose

personal property tax,

and state law should

provide newly

installed GHG

reducing personal

property is exempt

from that county tax.

avenues

loans, tax credits,

need to consider owner types developer. non-profit, commercial, local govt - as they have different financing mechanisms

assist with equipment but don't address expenses needed to upgrade electrical service & bldg infrastructure

recording when at least 50% of the new debt will be used for improvements to reduce GHG emissions

Exempt from

Provide opportunities for private equity to finance or provide long term leasing. similar to the electrification efforts in Ithaca

Additional resources are needed to support long-term leasing and financing, either through the green bank or private equity. Private equity is being used in Ithaca for electrification.

Gaps exist in low-income private housing. Funds should be used to help landlords make the switch.

Make clear that all

and exclusive

property of a building owner

GHG data, including underlying utility information and the like, remain the sole

Alter the existing state and local and cheaper and 'buy down' private

many incentives first costs are high and often the responsibility of building occupants rather than the owner.

owners.

Why

regulatory schemes to make commercial PACE faster, easier, use state grants tor PACE loans

Gaps exist for low-income

privately owned housing. Funds should be used to alleviate costs for these prope

Incentive Alignment

How should the state align federal and state incentives to maximize available funds for decarbonization?

CONSIDER: Challenges, Existing Resources, Needs

+1

The regulations should provide that a LEED Zero Energy certified building satisfies that statute's net zero requirement by 2040

+1

expanded federal 179D tax deduction of \$5 per sq ft with state per sq ft grants to reduce costs of new federal prevailing wage and apprentice requirements Make federal 179D tax deduction more efficacious and more valuable with a state tax "credit" with the same qualifications as the federal deduction

Make more valuable the updated federal 45L tax credit eligible for new or substantially reconstructed homes

Look at what projects can deliver most impact and prioritize across different agencies to accelerate +1

Make application easy and minimize reporting- funds often not used due to cumbersome reporting

+1

+1

Financing through utility incentive programs for targeted energy savings measures

> Look for projects that deliver the most carbon reduction and prioritize alignment of incentives to accelerate

Property Tax
Exemptions for
efficient building
upgrades could help
expedite payback
periods

need to be offered to all large buildings to assist with electrification--many owners do not know if there is capacity to shift energy load from gas to electricity

Electric Load Studies

Combine
weatherization
programs to the
deck of options that
would allow
buildings to operate
more efficiently

Work with banks to understand the implications of government incentives so they examine project risk and align/offer financing options accordingly Technical guidance or support on layering incentives. You have to hire someone to navigate these complex applications.

Gap analysis between common incentives like HUD Green MIP and higher performance levels

encourage 100%
depreciation of new
systems and energy
related building
shell improvements
incen
partic
partic
progr

There should be tax incentives for participating in programs like LEED, BOMA BEST, Etc that focus on sustainability and energy reduction.

Respect building life cycle and monetizing events in BEPS compliance schedule.

+1

Eligibility of state/EmPOWER incentives should align with IRA incentive eligibility

+1

make sure incentives and recommendations don't end up working against electrification, as some utility programs do now

Need access to utility usage data, especially difficult in multifamily

+1

+1

Technology

What decarbonization technology or approaches need more support (incentives, programs, education, etc) to gain wide

adoption for non-BEPS buildings? CONSIDER: Challenges, Existing Resources, Needs

Approach-Schools should be under BEPS requirementswhat better way to say you want to improve the environment than to start with improving schools!

Elon Musk said

electricity demand is

as more EVs hit the

road and businesses

are electrified. MD

Give onsite GHG

regulation, for

emission offset by

projects achieving

Performance Green

Maryland's High

requirements

Building

generation.

going to triple by 2045

needs more electricity

CHP and district ground source heat pump to serve neighborhood and campus retrofits.

Program should not be punitive using the EPA social cost of carbon when the General Assembly enacted SB 528) not some later dollar amount

Modify the regulations to make clear state law supersedes local. including Howard Co and MoCo all electric building codes

Low and no carbon fuels to help existing buildings achieve emissions reductions.

Create an offset in the regulations for a building's direct **GHG** emissions for carbon sequestration (e.g.,

The Governor should only recommend capital budget funds for net zero school building (i.e., LEED Zero Energy or the like, per MD Green Building Council)

NYC pilots)

Revise MDE interpretation to be consistent with Land Use Article Sec 4-210 making clear a solar panel is impervious for SWM, for zoning, etc

> Invest in reliable infrastructure to broaden access to electric and encourage building side energy reduction measures to relieve ex grid

I'm uncomfortable with suggesting offsets to GHG - we don't need to create loopholes

Create an offset expressly against the specific 20% reduction by 2030 and 40% reduction by 2035 from GHG for covered buildings

Create a state

renewable energy

renewable energy

credit (REC) for onsite

systems installed on

school buildings and other not covered government buildings

The Governor should only recommend state historic tax credits for net zero projects (i.e., LEED Zero Energy or the like, per the MD Green Building Council)

Induction Ranges are 3x the cost of electric resistance ranges and gas ranges--they need to compete for there to be wide adoption

> small building notification

Create an offset in the regulations for **GHG** emissions by food waste composting (including that such an offset could be sold by schools)

> Acknowledge on-site and off-site renewable energy

set GHG goals and let them market sort out the best technologies -- don't pick winners and losers

Heat Pumps and electric ranges that work on 120v circuits would greatly speed up electrification

Smart panels

to minimize

upgrades

need for panel

Only offer incentives for buildings that support reduction in food waste including reducing the associated GHG emissions

Program needs a

waiver or variance

procedure to make it

work and ameliorate

the harsh effects. ..

including possibly

For those

Maryland

businesses that

that measuring

emissions in other

states, they can use

standard and tool in

calculate GHG

allowing additional

years for compliance

Modify the regulations to mitigate district energy emissions at the generating facility level not at the building level.

MD is a net importer of electricity so the state needs more electricity, MD needs more power generation for a decarbonized MD economy

encourage efficiency and passive building strategies - this reduces peak demand and strain on existing grid

Expressly exempt

generators, etc.)

Auditing and retro-commissioning

Automated ongoing commissioning

building back up power sources from energy calculations (e.g., co generation facilities, on site diesel generators, natural gas

Educate the operator. Outreach and

the surface)

older, poorly performing buildings. Especially with central systems

MD become alternative energy friendly including new wind and solar friendly statutes (e.g., recognizing wind/solar rights are severable from