CB5-2023

Sayers, Margery

From: kathy jordan <travelkj@aol.com>
Sent: Tuesday, February 28, 2023 9:23 PM
To: CouncilMail
Subject: CB5-2023

I am encouraging the passage of CB5-2023, without weakening amendments or substantive changes. The bill is a crucial step forward in putting Howard County on a path to reduce climate pollution and benefit Howard County residents' pocketbooks and health.

Many thanks,
Rev. Kathy Jordan
8005 Jane Garth
Jessup, MD 20794
Cell/text: 410-802-8950

Sent from my iPad

Sayers, Margery

From: Shari Glenn <shariglenn1@gmail.com>
Sent: Tuesday, February 28, 2023 9:23 PM
To: CouncilMail
Subject: Vote YES for CB5

Please pass CB5-2023 on Monday, March 6, without any weakening amendments or substantive changes. The bill is a crucial step forward in putting Howard County on a path to reduce climate pollution and benefit Howard County residents' pocketbooks and health.

Shari Glenn
8313 Whitebark Ct, Ellicott City
District 2

Sayers, Margery

From: Judith Todes <todes.judith@gmail.com>
Sent: Monday, February 27, 2023 4:51 PM
To: CouncilMail
Subject: CB5-2023

[Note: This email originated from outside of the organization. Please only click on links or attachments if you know the sender.]

I live in Columbia and I'm writing this email to strongly urge you to pass CB5-2023 without weakening amendments or substantive changes.

Judith Todes
10738 Symphony Way, Columbia, MD 21044

Sayers, Margery

From: Jillian Adams <jilliandembek@gmail.com>
Sent: Monday, February 27, 2023 4:46 PM
To: CouncilMail
Subject: CB5-2023 - please pass this bill!!

Hello!
Please pass this bill without weakening it!

Thank you!
Jill Adams

Sayers, Margery

From: wprather42@gmail.com
Sent: Monday, February 27, 2023 4:19 PM
To: CouncilMail
Subject: Please pass CB5-2023 Monday Mar 6!

Please pass CB5-2023 on Monday, March 6, without any weakening amendments or substantive changes. The bill is a crucial step forward in putting Howard County on a path to reduce climate pollution and benefit Howard County residents' pocketbooks and health.

Please do not fall for the arguments about "choice" put forward by some in the Feb. 21 testimony. Saying someone should have the "choice" to create more greenhouse gases makes no more sense than saying they should have the "choice" to drive drunk. Someone who "chooses" fossil-fuels is choosing to affect EVERYONE, not just themselves.

It's true that today some Electric power is still produced using fossil fuels, but that is changing rapidly as power companies in the area are switching rapidly to wind and solar.

Wanda Prather
6320 Velvet Path
Columbia, MD 21044
MD District 13

Wanda Prather
wprather42@gmail.com
Speak truth - Practice kindness - Teach tolerance

Sayers, Margery

From: Cheryl Arney <cherylarney@gmail.com>
Sent: Monday, February 27, 2023 3:50 PM
To: CouncilMail; Cheryl Arney
Subject: Vote Yes on CB5-2023
Attachments: LetterInBaltimoreSun27Feb2023_StopConnectingNewBuildingsToGasLines.jpg

Members of the Howard County Council,

I urge you to vote "Yes" on CB5-2023, the "Clean New Buildings Climate Act", at your meeting on March 6. I'm so happy MY County Council is taking the lead on this important action, as i said in my letter to the Baltimore Sun, (first letter, and attached):

https://www.baltimoresun.com/opinion/readers-respond/bs-ed-rr-0227-gas-electric

Cheryl Arney
4361 Wild Filly Ct.
Ellicott City MD 21042

As BGE invests in gas, Sun readers question the wisdom

Stop connecting new buildings to gas lines

Will Rogers said, "When you're in a hole, stop digging." We here in Maryland are in the hole of too much dependence on fossil gas as a heat source in our buildings. So let's stop digging! Let's stop connecting our new buildings to gas lines.

All-electric buildings are healthier, better for our climate and produce lower utility bills. Montgomery County recently decided to electrify its new buildings and Howard County is now considering it in its "Clean New Buildings Climate Act" (CB5). Thank you to Council Chair Christiana Rigby for introducing this act and to Council member Liz Walsh and Chair Rigby for adding strengthening amendments.

The Baltimore Sun explained why this is so important in its recent editorial "Maryland must embrace its electric future" (Feb. 16). After pointing out Maryland's extreme vulnerability to the effects of climate change, which we in Ellicott City know a little about after experiencing two "thousand-year floods" in two years, the editorial asked whether it was worth the cost of transitioning away from gas appliances. The answer? "You better believe it." I agree.

— Cheryl Arney, Ellicott City
The writer is a volunteer with Citizens' Climate Lobby.

BGE says it updated the natural gas system near Walther and Fleetwood avenues in 2020 to enhance safety and service.
KIM HAIRSTON/BALTIMORE SUN

Improving gas system is an investment in public safety and health

But we must go much further. Loopholes in Maryland's Renewable Energy Portfolio Standard have squandered

Sayers, Margery

From: Laurie Liskin <lliskin49@gmail.com>
Sent: Monday, February 27, 2023 3:16 PM
To: CouncilMail
Subject: Vote Yes on CB5-2023 - The Clean New Buildings Climate Act

Dear County Council Members,

I urge you to vote yes on CB5-2023, The Clean New Buildings Climate Act, without amendments or major revisions. This critically important bill will make Howard County safer and healthier for everyone. And it will put our County in the forefront of reducing greenhouse gas emissions. Electric buildings are cheaper and safer, reducing harmful indoor pollution. CB5-2023 is a win-win for everyone.

Please vote Yes on CB5-2023.

Laurie Liskin
4642 Smokey Wreath Way, Ellicott City, MD 21042
District 1
lliskin49@gmail.com

Sayers, Margery

From: Ruth W <ruth.folkfan@gmail.com>
Sent: Monday, February 27, 2023 2:29 PM
To: CouncilMail
Cc: Phil Webster; Lindsay Estes; Shari Glenn; ElectrifyHoCo GoogleGroup
Subject: CB5-2023 -Response to Testimony of Jeffery Kenney, President of the Mid Atlantic Propane Gas Association

TO: HoCoCouncilMembers

CC: ElectrifyHoCo Google Group

Re: Testimony of Jeffery Kenney, President of the Mid Atlantic Propane Gas Association

From:
Participants in Electrify HoCo

We are urging the council to pass CB5-2023 without weakening amendments or substantive changes.

The bill as drafted now, ENRCB5-2023.pdf, requires the County Executive to submit a report on a new building code for electrification. Although there are suggestions in the bill for areas the report should cover, the bill does not change the building code in any way and therefore this testimony about the value of propane is not pertinent at this point. And consideration of it, pro or con, should not delay action on this bill.

That said, we found the propane information presented to be very biased. Propane is a by-product of fossil/fracked gas or petroleum, potent greenhouse gases.

We offer the following three comments about propane:

Greenwashing - At the Hearing on February 21st, Mr. Kenney gave testimony concerning propane that can only be described as "greenwashing." Wikipedia defines greenwashing as "a form of advertising or marketing spin in which green PR and green marketing are deceptively used to persuade the public that an organization's products, aims and policies are environmentally friendly. Companies that intentionally take up greenwashing communication strategies often do so in order to distance themselves from the environmental lapses of themselves or their suppliers." Two recent articles on propane greenwashing:

- Distilled recently published an article on Propane Education and Research Council greenwashing.
- (https://www.distilled.earth/p/internal-documents-reveal-the-fossil)
- The New York Times recently published an article about the Propane Education and Research Council
- greenwashing. (https://www.nytimes.com/2023/01/11/climate/climate-propane-influence-campaign.html)

Propane produces greenhouse gases - The basic unit for comparing fuels is the BTU (British Thermal Unit) and is defined as "the amount of heat required to raise the temperature of one pound of water by one degree Fahrenheit."

- According to the American GeoSciences Institute propane emits 139 pounds of CO2 per million BTU,
- while methane emits 117 = an increase of 18.5%. https://www.americangeosciences.org/critical-issues/faq/how-much-carbon-dioxide-produced-when-different-fuels-are-burned

More propane usage would increase "natural" gas usage - Propane is a component of raw fossil/fracked gas which is made up of about 90% methane and 5% propane. Increasing the usage of propane would require 18 times greater use of natural gas. There is NO WAY to use more propane without using more methane!

- https://www.smithgas.com/industry-insights/how-propane-is-produced-and-why-it-matters#:~:text=Propane%20makes%20up%20about%205,condense%20in%20
- natural%20gas%20 pipelines.

In conclusion, we would like the council to pass revised CB5-2023 as it is, without delay. This revised bill codified part of the Executive's proposed Climate Action Plan and thus is work his office is already planning to do.

CB5-2023 notes that the Climate Solutions Act of 2022 required the Maryland Department of Labor, Division of Labor and Industry, Buildings Code Administration to submit an interim report on Jan. 1, 2023 and a final report on or before Dec 1, 2023, "to study and make recommendations on the electrification of buildings in the State." The Jan 1 report available here was done under the prior Hogan administration. The report due Dec 1. will be done under Governor Moore and may have different conclusions. Regardless, the Executive and the county council will have time to absorb and react to this report before the report from CB5-2023 is due and before new county buildings codes will be passed. Thus, it is premature to anticipate the direction the state or the legislature will take in the future. Howard County should move ahead with a study now.

For all these reasons, again, we urge the council to pass CB5-2023 without delay.

From Participants in Electrify HoCo Campaign:
Phil Webster
Lindsay Estes
Shari Glenn
Ruth Alice White
Wendy Hall

Sayers, Margery

From: brian costello <costello27@verizon.net>
Sent: Saturday, February 25, 2023 12:12 PM
To: CouncilMail
Subject: County Bill 5-2023

[Note: This email originated from outside of the organization. Please only click on links or attachments if you know the sender.]

Please vote for CB5-2023. I cannot say it any better than the editorial writers in the Baltimore Sun editorial on February 16th:

> "That's why attention must be paid to the recent petition filed by the Maryland Office of People's Counsel calling on the Maryland Public Service Commission to slow spending on new natural gas infrastructure. The logic here is pretty clear. The more utilities spend on new pipelines or other distribution equipment, the more they are going to facilitate continued and perhaps greater use of that commodity."
>
> "over-investment in gas will bite back in stranded costs that will raise utility prices for all, but will be particularly hard on lower-income households. And make no mistake, that day is coming. As an OPC report released last year pointed out, customers are already switching to electricity with nearly all buildings, including 96% of homes, expected to be heated by heat pumps by 2050."
>
> "When does Maryland start taking the less popular actions like reducing investment in natural gas infrastructure?"
>
> "The state must also invest more in energy conservation, in public transit, in smarter land use policies, in electric vehicles, in green energy and on and on with other states and nations doing the same. But the movement can start right now and right here with putting an end to new gas appliances and over-investment in natural gas infrastructure."

In addition, according to the Baltimore Sun, in 2022, Baltimore Gas & Electric and Washington Gas spent $78 million and $50 million respectively on "new customer acquisition and system expansion," according to a recent People's Counsel report.

Howard County can take the lead, or be one of the several counties taking the lead, until Maryland and the country catch up with what must be done. Please, act now to mitigate climate change by *requesting a report* on new building electrification.

Thank you
Brian Costello

Sent from my iPhone

Sayers, Margery

From: joel hurewitz <joelhurewitz@gmail.com>
Sent: Friday, February 24, 2023 11:47 AM
To: CouncilMail
Cc: Kuc, Gary
Subject: Re: CB5-2023 Technical Amendments Needed

[Note: This email originated from outside of the organization. Please only click on links or attachments if you know the sender.]

Dear Councilmembers,

As a follow up to my previous email of February 1, 2023, CB5-2023 still needs an amendment to prevent the codified bill from becoming a zombie section of the County Code. Section 2 of the bill now provides that the report shall be submitted "not later than 30 days after publication of the Building Codes Administration's final report as required by the uncodified Section 10(b)(3)(ii) of the Climate Solutions Now Act of 2022, Chapter 38, Acts of the General Assembly of 2022." So by early 2024 that is intended to be completed, yet anyone reading the code section will be looking for a report without benefit of the uncodified Section 2 or doubly by the timing of the report from the Building Codes Administration.

Moreover, does the Council realize that should the Building Codes Administration issue its final report well in advance of its December 1, 2023 deadline, the 30 day deadline in Howard County will also be prior to December 1, 2023? Conversely, if the Building Codes Administration misses its statutory deadline, Howard County's report will be pushed into 2024. Thus, to determine when the County's report is due, one would need to first find the uncodified Howard County provision, then read the uncodified section in Chapter 38, Acts of the General Assembly of 2022, and finally find out when the Building Codes Administration actually submitted its report to the Legislative Policy Committee. Moreover, it will be even more difficult to comprehend if the section remains in the Code past the deadlines of 2030 and 2045 referenced in lines 16 and 17 on page 5 of the bill.

Therefore, to avoid all of this long-term unnecessary confusion and searching for legislative language and delivered reports, either the codified section of the bill needs to have the timing requirements for the delivery of the report or more appropriately the section needs to be abrogated at a reasonable time after delivery of the report and/or consideration of the Building Code by the Council.

Furthermore, the subtitle should be "Comprehensive Building Decarbonization" rather than "Miscellaneous." What is the second section that will be under "Miscellaneous"?

Unfortunately, though I have tried numerous times, for nearly two months, to discuss the bill with D3 by email, voicemail and personal messages with the staff and in-person with the bill's sponsor, I have not received a coherent response.

Sincerely,

Joel Hurewitz
Columbia, MD .

THOMPSON GAS

Thank Mr. Chairman and council members

Bill 5-2023

Thank you for this opportunity.
I am speaking tonight as citizen of Howard County. I moved to western howard in 1976 and currently still reside there. I am also representing the Mid Atlantic Propane Gas Association which I am currently serving as President.
In my mind more importantly I am representing a grandfather that is concerned for the future. What type of world will my grandchildren live in.
Climate change is real, that can no longer be denied. We are playing catch up, measures to reduce the carbon footprint should have been started decades ago.
But they weren't

So now the decisions of how me move forward are being made.

The calls for electrification have been growing over the last several years and have now reached deafening levels. It is being held up as the gold standard. The way to move forward.
Is it?

I want to give a different vision. One that still reaches the same goal but without the draconian measures of eliminating choice for citizens and businesses.

THOMPSON GAS

My vision of course involves propane. You might be starting to shut me out but I ask you to please humor me a little longer.

There is factual evidence why propane should be considered a solution to reducing our carbon footprint not part of the problem

Propane has been lumped in with the dreaded group "Fossil Fuels" but is it? Let me explain why I think that is a misnomer. Propane is now renewable and the technology to create it is getting better on an exponentially basis. Propane Contains no Methane one of the highest contributors of greenhouse gas.

Propane is the simplest of the carbon-based molecules. This allows for extremely high efficiencies when being used as a fuel source. Typically reaching mid to high 90 pecent in furnaces, hot water heaters and clothes dryers. Electric appliances cannot come close to these percentages.

I want to give a couple of quick examples that I am and have been involved in.

LKQ one of the largest Autoparts retailers in the world, Multi billion dollar company decided to reduce their carbon footprint by 25%. They did the usual things, light bulb changes, solar panels on the roof of building they own. But how they not only got to their goal but exceeded it was by converting their fleet of delivery vehicles to propane. They achieved a 28% reduction which is still growing and also reduced their fuel costs as well

Another example is a large national home builder that has been building in Howard county for decades use to have heat pumps as the main source of heat with a Propane

THOMPSON GAS

furnace as the backup once outside temperatures reached below 35 degrees (Propane is more efficient) They wanted to be able to sell their homes as energy star. How they got there was by converting their homes to all Propane. Both Furnaces to Propane. The Heat pump would not allow them to get to the level of energy star home.

According to the DOE National Energy Technology Lab Maryland's Electric Grid has a Carbon intensity of 112.9 Co2 equivalent. Propane has a 80.1 number.
Propane has 50% less Green house than Electric furances and 22% less than heat pumps.
Propane hot water heaters have 25 % less Nitrogen Oxide that electric hot water heaters. That number goes up significantly with Propane on demand ones.
Clothes dryers have 42% less CHG
Ranges 83 % less Sulfur Oxide. The recent study on gas cook tops was based on Natural gas ones that had leaking systems this does not reflect what is being installed in this county.
This is with technology in place now, as is. No further changes would be needed. But more research is being done, just like with batteries, solar panels and wind power To ban Propane from all future uses when potentially new technology could enhance even further its current green status would be very short sighted.

Propane is also a choice for many residents that you will be blocking them to choose.
Electricity is an extremely expensive way to heat your home.

THOMPSON GAS

Placing all energy usage on to a Grid that is being stretched to the limits currently. The grid also as the recent news has also made us aware of is a target of domestic terrorist.
In closing banning propane will be throwing out the baby with the bathwater.
It is a proven, American made, highly efficient, green energy product with a low carbon footprint and should be removed from this bill. If anything, it should be used more.

Converting all gas lawn mowers to electric ones would give more of a carbon footprint reduction than reducing propane in future building projects ever will.

ENERGY FOR EVERYONE
propane

Why Net Zero is Important

"Net zero" refers to achieving an overall balance between emissions produced and emissions taken out of the atmosphere. Propane can help reduce CO_2 emissions by replacing heavy carbons like coal, oil and even wood. Its affordability also ensures every consumer can share equitably in the benefits propane brings.

Propane Decarbonizes

Cleaner and renewable energy like propane **accelerates decarbonization.**

- Decarbonization requires more cleaner energy options. The U.S. Department of Energy's (DOE) Office of Scientific and Technical Information says that large emissions reductions are achievable through a broad range of opportunities, including the use of low- or zero-carbon alternatives. [1]
- The electric grid isn't always the cleanest answer. Currently, propane-fueled medium- and heavy-duty vehicles provide a lower carbon footprint solution in 38 U.S. states when compared to medium- and heavy-duty EVs charged from the electrical grid. [2]
- Propane is innovating everyday. It is, in fact, the new diesel. Six propane-related projects were part of DOE's 2020 $139 million effort to advance innovative vehicle technologies. [3,4]
- Ocean-going cargo ships need to reduce sulfur emissions by more than 80%. Propane is replacing heavy carbon fuels because it meets all current global emissions standards today. [5]
- Propane makes ultra-efficient Combined Heat and Power (CHP) technology possible. CHP is on-site generation capable of providing reliable electricity. Unlike centralized electrical generation plants that operate at only 33% efficiency, CHP systems capture heat and achieve total system efficiencies of 60-80% for producing electricity and useful thermal energy. Some systems achieve efficiencies approaching 90%.
- Solar and wind have improved greatly but can't improve much more. The physics boundary for silicon photovoltaic cells, the Shockley-Queisser Limit, is a maximum conversion of 34% of photons into electrons; the best commercial PV technology today exceeds 26%. For wind turbines, the Betz Limit is a maximum capture of 60% of kinetic energy in moving air. Today's commercial turbines achieve 45%. [7]

Propane Ensures Equity

Access to cleaner, **affordable** and renewable energy like propane **ensures equity** on the path to zero.

- Urban and rural low-income households, especially African American and Latinx households, spend roughly three times as much of their income on energy costs as non-low-income households. In February 2021, EIA reported that electricity was 68% more expensive per million BTUs than propane. [8,9]
- Energy should be affordable, so that no one has to go without, but the share of income that low-income households spent on electricity rose by 1/3 in the last decade. [10]
- Everyone should have access to clean energy and home energy management tools, but utility programs that promote rooftop solar power, electric vehicles, and home energy storage are largely inaccessible to low-income households. [11]
- Emission-free renewable energy isn't free. Net-metering gives solar customers a credit on their bill when their rooftop panels generate excess power and the utility buys back the power. The power is paid for by other non-solar customers, including low-income households. [12]
- Escalating electricity prices are regressive — poorer people pay a higher proportion of their incomes heating and cooling their houses than do richer people. [13]
- Electrifying everything will cost an estimated $20-$25 trillion over the next 20 years. [14]
- At least 100 pounds of materials are mined, moved and processed for every pound of battery fabricated and Amnesty International has reported on the prevalent use of child labor in mining of materials like cobalt and lithium. [15,16]

It's Better With Propane

It's better than grid electricity - because more than 60% of energy used for electricity generation is lost in conversion and nearly 25% of grid electricity comes from coal. Propane has a great source-site ratio of 1.01, compared to 2.80 for electricity from the grid. Almost no energy is lost as it travels from tank to application. [17, 18, 19]

It's better than liquid fuels - because it vaporizes when exposed to air. It won't harm soil, drinking water or marine ecosystems and is not reactive in the air. Versus gasoline, propane autogas-powered vehicles significantly reduce emissions: 12% less CO_2, 20% less NOx, 25% fewer greenhouse gases and up to 60% less carbon monoxide. The numbers versus diesel are even better, plus propane emits virtually no particulate matter (PM 2.5]. [21]

It's better than natural gas - because propane is methane-free. Over a 20-year period, one ton of methane has a global warming potential that is 84 to 87 times more than CO_2. [20]

It's WAY better than coal - because it is low carbon. That's why the U.S. Dept. of Energy classifies it as a clean alternative fuel. [22]

And it's renewable - because it is being made today by converting plant and vegetable oils, waste greases and animal fat into fuel, all of which are MUCH better than disposal. [23]

Interested to learn more?
Check out the Fast Facts at propane.com/environment

1. (2017) U.S. Department of Energy Office of Science and Technical Information. https://www.osti.gov/biblio/1372620
2. (2020) Decarbonization of MD- HD Vehicles with Propane. https://propane.com/research-development/emissions/decarbonization-of-md-hd-vehicles-with-propane/
3. (2020) Propane Could Be the New Diesel with $3.5 million U.S. Department of Energy Grant. https://engr.source.colostate.edu/propane-could-be-the-new-diesel-with-3-5-million-u-s-department-of-energy-grant/
4. (2020) DOE Funding for Vehicle Technology Shows Parity for Propane. https://www.lpgasmagazine.com/doe-funding-for-vehicle-technology-shows-parity-for-propane/
5. (2021) Technology Developments Come to Fruition for the Propane Industry. https://www.lpgasmagazine.com/technology-developments-come-to-fruition-for-the-propane-industry/
6. (2021) EPA - CHP Benefit. https://www.epa.gov/chp/chp-benefits
7. (2019) Inconvenient Energy Realities. https://economics21.org/inconvenient-realities-new-energy-economy
8. (2020) Recognition of and Response to Energy Poverty in the United States. https://www.nature.com/articles/s41560-020-0582-0
9. (2021) Federal Register/Vol 86/No. 50/Wednesday March 17, 2021/Notices. https://www.govinfo.gov/content/pkg/FR-2021-03-17/pdf/2021-05407.pdf
10. (2016) Where America's Poor Pay the Most for Electricity. https://www.bloomberg.com/news/articles/2016-04-14/the-u-s-cities-where-electricity-costs-more-for-low-income-households
11. (2020) Low-Income Energy Affordability: Conclusions From A Literature Review. https://www.ornl.gov/publication/low-income-energy-affordability-conclusions-literature-review
12. (2016) Rethinking Rationale for Net Metering. https://www.fortnightly.com/fortnightly/2016/10/rethinking-rationale-net-metering?page=0%2C4&authkey=2da80d85d34c100a798356a74f271dd824a0656fc9aab6a7dba6b4fe16350473
13. (2018) Renewable Energy Mandates Are Making Poor People Poorer. https://reason.com/2018/05/28/renewable-energy-mandates-are/
14. (2020) How to Drive Fossil Fuels Out of the U.S. Economy, Quickly. https://www.vox.com/energy-and-environment/21349200/climate-change-fossil-fuels-rewiring-america-electrify
15. (2019) Inconvenient Energy Realities. https://economics21.org/inconvenient-realities-new-energy-economy
16. (2017) Major Push to End the Hidden Human Toll and Pollution behind Smartphone and Electric Car Batteries. https://www.weforum.org/press/2017/09/major-push-to-end-the-hidden-human-toll-and-pollution-behind-smartphone-and-electric-car-batteries/
17. (2020) More Than 60% of Energy Used for Electricity Generation is Lost in Conversion. https://www.eia.gov/todayinenergy/detail.php?id=44436
18. (2021) What is U.S. Electricity Generation by Energy Source? https://www.eia.gov/tools/faqs/faq.php?id=427&t=3
19. (2020) ENERGY STAR Portfolio Manager Technical Reference. https://portfoliomanager.energystar.gov/pdf/reference/Source%20Energy.pdf
20. (2020) IEA - Methane Tracker 2020. https://www.iea.org/reports/methane-tracker-2020
21. (2021) Propane Autogas Reduces Emissions, One Gallon at a Time. https://www.roushcleantech.com/emissions/
22. (2016) Carbon Dioxide Emissions Coefficients. https://www.eia.gov/environment/emissions/co2_vol_mass.php
23. (2021) Renewable Propane as a Sustainable Fuel Solution in California. https://www.gladstein.org/renewable-propane-sustainable-fuel-solution-california/

For more information on propane appliances, visit **Propane.com**.

THE PROPANE EDUCATION & RESEARCH COUNCIL was authorized by the U.S. Congress with the passage of Public Law 104-284, the Propane Education and Research Act (PERA), signed into law on October 11, 1996. The mission of the Propane Education & Research Council is to promote the safe, efficient use of odorized propane gas as a preferred energy source.

1140 Connecticut Ave. NW, Suite 1075 / Washington, DC 20036 / P 202-452-8975 / F 202-452-9054

Propane Education & Research Council

ENERGY FOR EVERYONE
propane

Understanding Carbon Intensity

UNPACKING THE HIDDEN EMISSIONS IN THE GENERATION OF RESIDENTIAL ENERGY

As the national conversation around clean energy continues to intensify, full electrification of residential homes, appliances, and vehicles is frequently cited as a way for end users to cut emissions. But this strategy fails to account for the carbon emissions that are produced in the generation and distribution of electricity. Measuring a fuel's carbon intensity helps to capture emissions across the full life cycle of an energy carrier – and reveals the truth that conventional propane is often a cleaner residential energy choice than grid electricity.

Carbon intensity is the total carbon emissions (or total carbon footprint) embodied in an energy carrier such as propane or electricity right from the source to the point of use. For example, propane's carbon intensity would include the total carbon dioxide emissions from the production, transport, storage, and combustion of propane. Electricity's carbon intensity includes the total carbon dioxide emissions from extracting resources (such as coal, natural gas, materials for solar panels and wind turbines, etc.), generation of electricity, transmission and distribution of electricity, and end use of electricity. The units for carbon intensity are typically expressed in kg/mmBTU (million BTU) or grams/Megajoule.

80 g/MJ

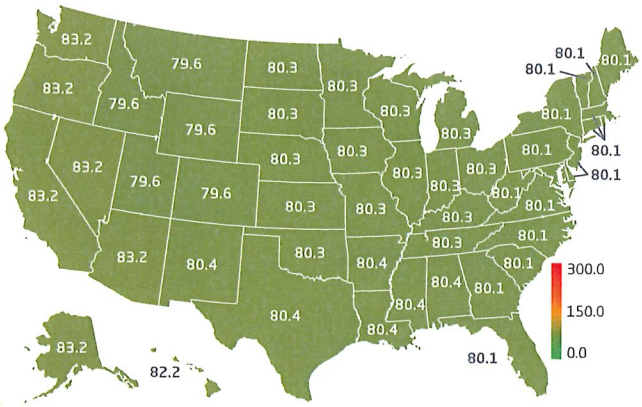
Carbon intensity of **conventional propane** for residential usage, national average

139 g/MJ

Carbon intensity of **grid electricity** for residential usage, national average

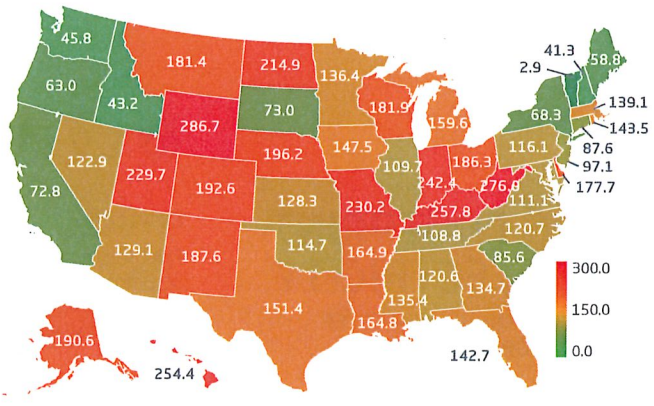
CONVENTIONAL PROPANE CARBON INTENSITY

(gCO2eq/MJ)



ELECTRIC GRID CARBON INTENSITY

(gCO2eq/MJ)



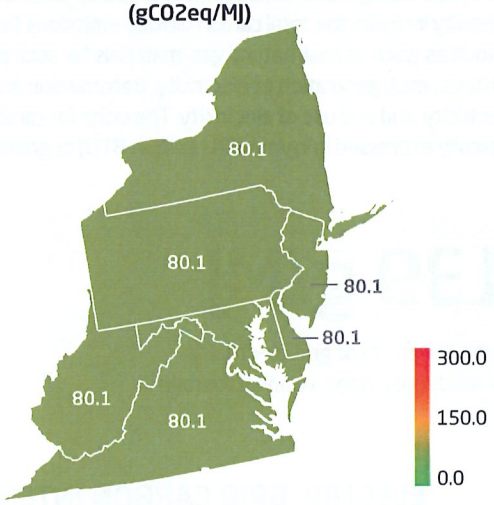
ENERGY FOR EVERYONE
propane

Carbon Intensity in Mid-Atlantic

Electricity's carbon intensity includes the total carbon dioxide emissions from extracting resources (such as coal, natural gas, materials for solar panels and wind turbines, etc.), generation of electricity, transmission and distribution of electricity, and end use of electricity. The units for carbon intensity are typically expressed in kg/mmBTU (million BTU) or grams/Megajoule.

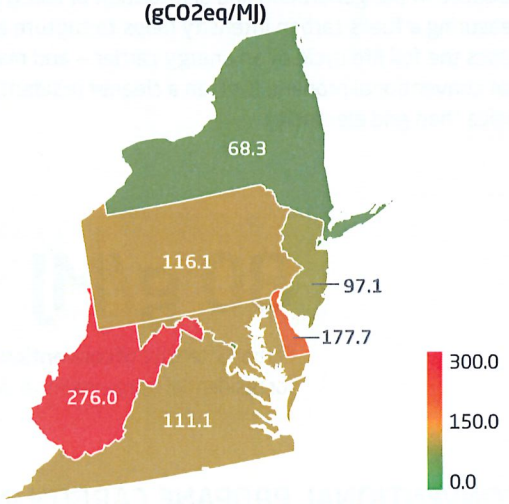
CONVENTIONAL PROPANE CARBON INTENSITY

(gCO2eq/MJ)



ELECTRIC GRID CARBON INTENSITY

(gCO2eq/MJ)



GHG FOOTPRINT OF ELECTRICITY

CONSIDER EVERY STEP OF THE PROCESS

Extraction

Electricity is not naturally occurring, so it must be produced using other resources like gas, coal, or nuclear.

approximately 9.9% CO2 eq emissions

Carbon intensity score:

15.2 g/MJ

Generation

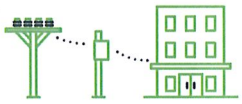
Power plant generates electricity.

Transformer steps up voltage for transmission.

approximately 75.6% CO2 eq emissions

Carbon intensity score:

116.5 g/MJ



Transmission & Distribution

The transmission lines carry electricity to transformers, which step down voltage. Electricity is delivered to the charging location.

approximately 4.5% CO2 eq emissions

Carbon intensity score:

7 g/MJ

renewable propane

Making a Clean Energy Cleaner

RENEWABLE PROPANE BUILDS UPON THE MANY BENEFITS OF CONVENTIONAL PROPANE

For more than 100 years, Americans have been using abundant, affordable, American-made propane for low-carbon energy that goes places others can't. And with renewable propane, it's getting even better. Renewable propane can be used alone or in blends with other renewable or low-carbon energy – including conventional propane – to further reduce carbon emissions without sacrificing performance.

What is renewable propane?

Renewable propane has the same great features as conventional propane – reliability, portability, power, and reduced carbon emissions – but with even lower carbon emissions when compared with other energy sources.

Unlike conventional propane, renewable propane can be made from a variety of renewable feedstocks. The most common form of renewable propane today is a byproduct of renewable diesel and sustainable aviation fuel made primarily from plant and vegetable oils, animal fats, or used cooking oil.

How is renewable propane cleaner than conventional propane?

Renewable propane's carbon intensity – or the carbon emitted for every unit of energy it produces – is lower than conventional propane because it's produced from bio-based or renewable sources.

Is renewable propane available now?

Yes. U.S. fuel processors are making renewable propane today, and the push for cleaner liquid fuels such as sustainable aviation fuel and renewable diesel fuel will lead to a sharp increase in renewable propane production.

By 2040, renewable propane could meet half the world's demand for propane, according to the World LP Gas Association.

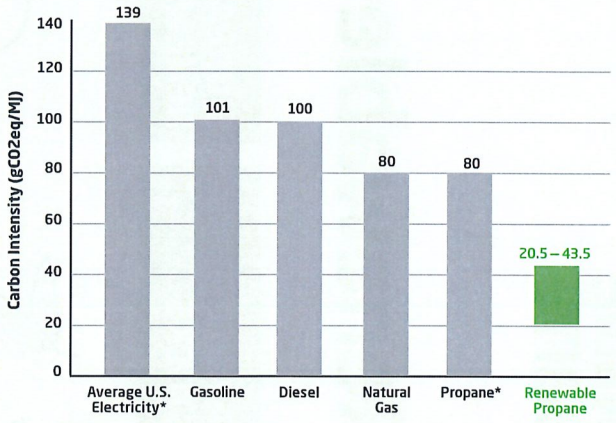
How does renewable propane compare with other energy sources?

The carbon intensity of renewable propane depends on the feedstock, but it's lower than many other energy sources.

For instance, according to the California Air Resources Board, renewable propane made with domestic, non-rendered, used cooking oil has a carbon intensity score of 20.5 (grams CO2 equivalent per megajoule), whereas conventional propane has a carbon intensity score of 80, lower than most other energy sources.

CARBON INTENSITY

Renewable propane's carbon footprint is smaller than almost any alternative

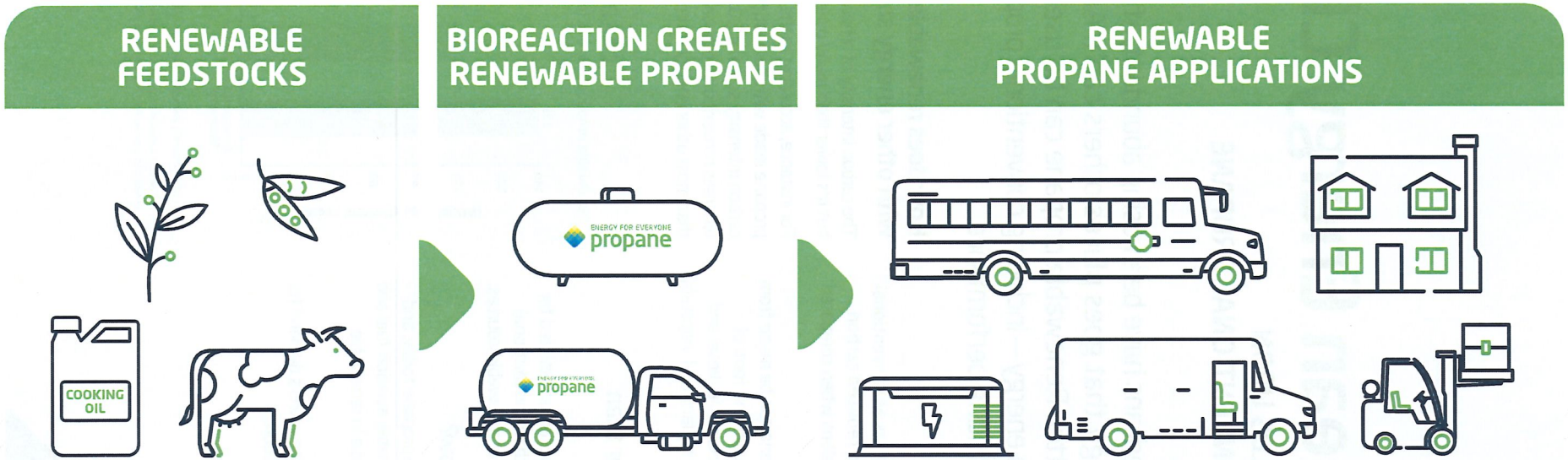


*Carbon intensity values calculated by PERC. All others calculated by CARB.

Actual CO2 emissions depend on a number of factors in addition to carbon intensity (emissions from battery and feedstock production, electicity, transmission, and distribution).

renewable propane

How Renewable Propane is Made



Eagle Tribune letter to editor

https://www.eagletribune.com/news/boston/gas-stove-bans-weighed-amid-health-climate-concerns/article_688ea6fe-9e5d-11ed-b711-f3c9732b0679.html

To the editor,

As the adage goes, the first casualty of war is truth. For proof, look no further than the latest "culture war" over gas stoves.

Frequent headlines about gas stoves and indoor air quality appear designed to mislead and polarize. The science behind the headlines is much more complicated and far from conclusive, but it doesn't generate clicks. Breathless tweets about the government coming to raid your kitchen are similarly overblown. Neither tactic addresses the issue of improving health nor the broader issue of climate change.

The act of cooking itself reduces indoor air quality. To alleviate health concerns, all stoves – gas, electric, or otherwise – should be installed and regularly inspected by a professional and vented to the outside.

We need to rise above the vicious winner-take-all mentality and adopt a cooperative, wide-path approach to climate action. Embrace innovation that lowers carbon emissions, whether it fits your preferred energy type or not.

Renewable propane is a great example. Improving on conventional propane, an already low-carbon fuel, it's made from biomass and cooking waste products. It's a promising ultra-low to zero-carbon fuel that can power stoves, vehicles, generators and more for generations to come. By the way, all propane is methane-free.

One can only hope the debate around the country will take place above the cultural fray and lead to science-based choices for our energy future.

Leslie Anderson, President and CEO, Propane Gas Association of New England

Tucker Perkins, President and CEO, Propane Education & Research Council

Letter to the Editor

Thank you, your submission/order has been received

The following details were submitted:

Print for your records

Contact Information

First Name

Leslie

Last Name

Anderson

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P.O. Box/Apt #

Unit C-5

City

Epsom

State

NH

Zip Code

03234

Email

leslie@pgane.org

Phone

(207) 745-5969

Your Letter

Type Your Letter

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Leslie Anderson, President and CEO, Propane Gas Association of New England
Tucker Perkins, President and CEO, Propane Education & Research Council

THOMPSON GAS

Thank Mr. Chairman and council members

Bill 5-2023

Thank you for this opportunity.
I am speaking tonight as citizen of Howard County. I moved to western howard in 1976 and currently still reside there. I am also representing the Mid Atlantic Propane Gas Association which I am currently serving as President.
In my mind more importantly I am representing a grandfather that is concerned for the future. What type of world will my grandchildren live in.
Climate change is real, that can no longer be denied. We are playing catch up, measures to reduce the carbon footprint should have been started decades ago.
But they weren't

So now the decisions of how me move forward are being made.

The calls for electrification have been growing over the last several years and have now reached deafening levels. It is being held up as the gold standard. The way to move forward.
Is it?

I want to give a different vision. One that still reaches the same goal but without the draconian measures of eliminating choice for citizens and businesses.

THOMPSON GAS

My vision of course involves propane. You might be starting to shut me out but I ask you to please humor me a little longer.

There is factual evidence why propane should be considered a solution to reducing our carbon footprint not part of the problem

Propane has been lumped in with the dreaded group "Fossil Fuels" but is it? Let me explain why I think that is a misnomer. Propane is now renewable and the technology to create it is getting better on an exponentially basis. Propane Contains no Methane one of the highest contributors of greenhouse gas.

Propane is the simplest of the carbon-based molecules. This allows for extremely high efficiencies when being used as a fuel source. Typically reaching mid to high 90 pecent in furnaces, hot water heaters and clothes dryers. Electric appliances cannot come close to these percentages.

I want to give a couple of quick examples that I am and have been involved in.

LKQ one of the largest Autoparts retailers in the world, Multi billion dollar company decided to reduce their carbon footprint by 25%. They did the usual things, light bulb changes, solar panels on the roof of building they own. But how they not only got to their goal but exceeded it was by converting their fleet of delivery vehicles to propane. They achieved a 28% reduction which is still growing and also reduced their fuel costs as well

Another example is a large national home builder that has been building in Howard county for decades use to have heat pumps as the main source of heat with a Propane

THOMPSON GAS

furnace as the backup once outside temperatures reached below 35 degrees (Propane is more efficient) They wanted to be able to sell their homes as energy star. How they got there was by converting their homes to all Propane. Both Furnaces to Propane. The Heat pump would not allow them to get to the level of energy star home.

According to the DOE National Energy Technology Lab Maryland's Electric Grid has a Carbon intensity of 112.9 Co2 equivalent. Propane has a 80.1 number.
Propane has 50% less Green house than Electric furances and 22% less than heat pumps.
Propane hot water heaters have 25 % less Nitrogen Oxide that electric hot water heaters. That number goes up significantly with Propane on demand ones.
Clothes dryers have 42% less CHG
Ranges 83 % less Sulfur Oxide. The recent study on gas cook tops was based on Natural gas ones that had leaking systems this does not reflect what is being installed in this county.
This is with technology in place now, as is. No further changes would be needed. But more research is being done, just like with batteries, solar panels and wind power
To ban Propane from all future uses when potentially new technology could enhance even further its current green status would be very short sighted.

Propane is also a choice for many residents that you will be blocking them to choose.
Electricity is an extremely expensive way to heat your home.

THOMPSON GAS

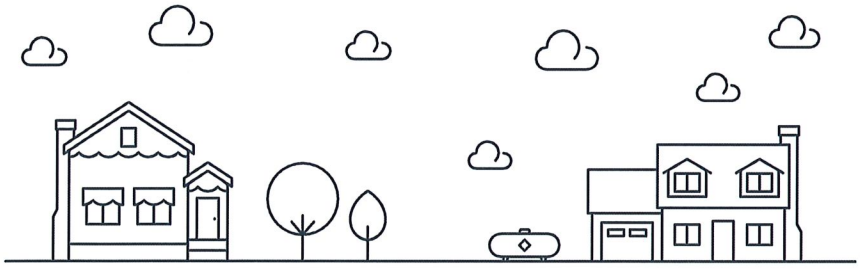
Placing all energy usage on to a Grid that is being stretched to the limits currently. The grid also as the recent news has also made us aware of is a target of domestic terrorist.
In closing banning propane will be throwing out the baby with the bathwater.
It is a proven, American made, highly efficient, green energy product with a low carbon footprint and should be removed from this bill. If anything, it should be used more.

Converting all gas lawn mowers to electric ones would give more of a carbon footprint reduction than reducing propane in future building projects ever will.

ENERGY FOR EVERYONE
propane

Emissions Advantage for Propane Residential Appliances

American homeowners are paying more attention than ever to their carbon footprint, from the cars they drive, right down to their home appliances. This new report proves that propane is the best way construction professionals can help environmentally-conscious homeowners reduce their emissions for space and water heating, clothes drying, and cooking.

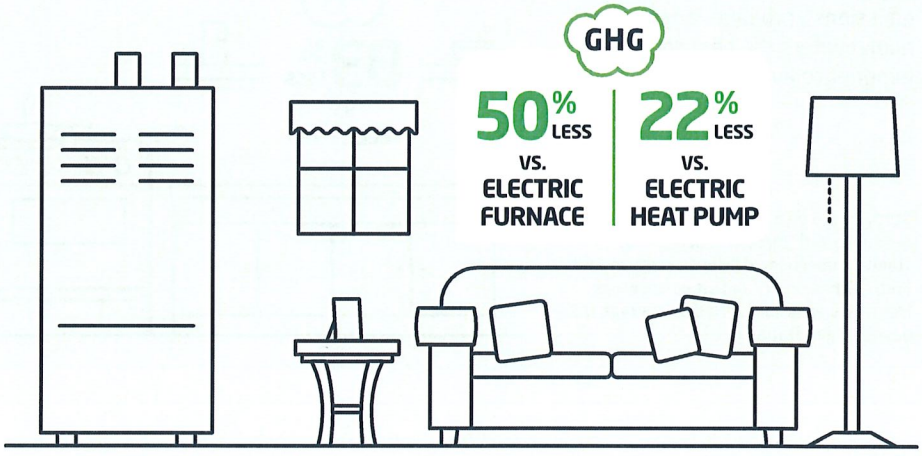


METHODOLOGY
From August 2016 through January 2017, the Propane Education & Research Council contracted the Gas Technology Institute (GTI) to execute a comparative emissions analysis study of targeted applications in key propane markets, including the residential market. The report studied three emissions types: full-fuel-cycle energy consumption, greenhouse gas emissions, and criteria pollutant emissions (NOx, SOx).

SPACE HEATING

With a propane furnace, homeowners have a cleaner source of home heat than electric furnaces, Energy Starrated and standard electric heat pumps, and heating oil. Propane also has a reputation for keeping homes more comfortable with a warmer heat than other power sources.

Study based on a single detached residence with three occupants and an annual heating load of 51.2 MMBtu, based on the average propane use for heating as reported by Residential Energy Consumption Survey.

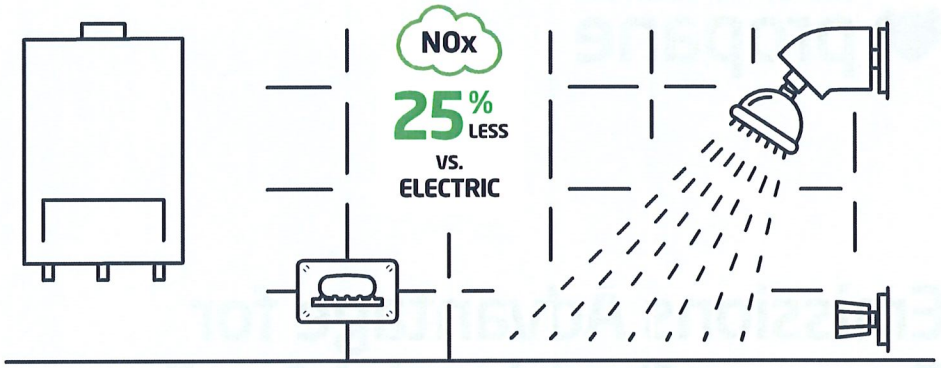


SOx = SULFUR OXIDE NOx = NITROGEN OXIDE GHG = GREENHOUSE GASES

WATER HEATING

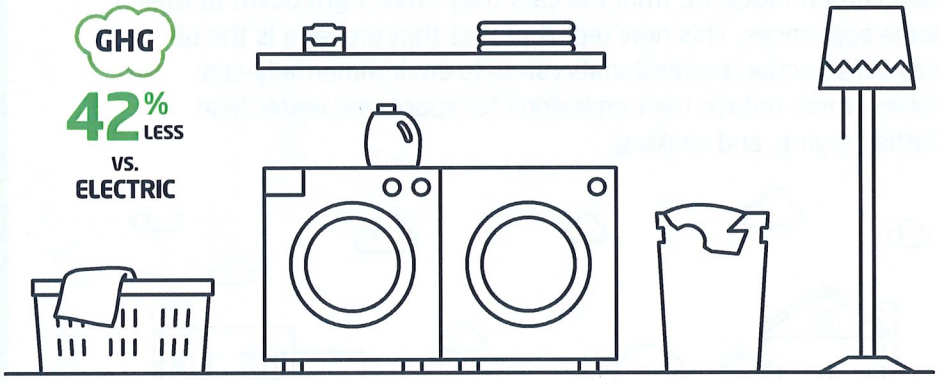
For lower emissions, propane storage tank and tankless water heaters outperform electric models. Propane is also the best choice for energy efficiency that cuts homeowners' energy bills, and keeps up with heavy water heater usage.

Study based on a single detached residence with three occupants and an annual water heating load of 11.6 MMBtu. Water heater energy factors based on Department of Energy and Energy Star minimum ratings for residential water heater technologies.



DRYERS

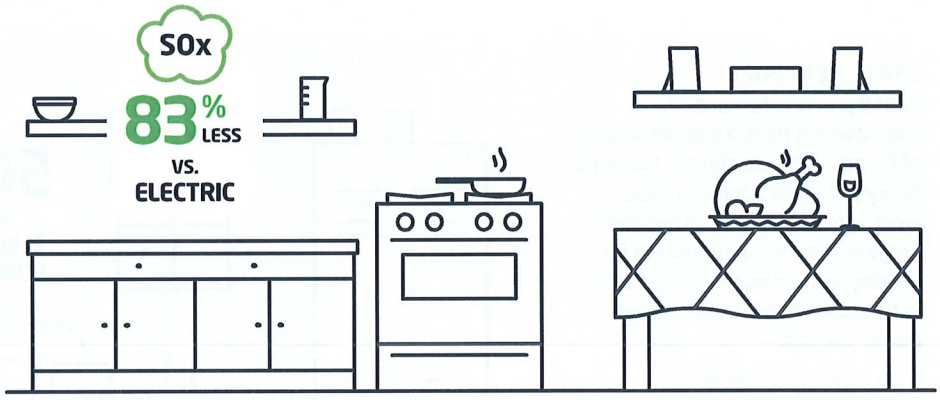
In clothes drying, propane has the unique benefit of reducing greenhouse gases* while also drying clothes faster, with a more moist heat to maintain the quality of the fabric.



RANGES

Beyond reducing harmful emissions*, propane ranges give homeowners the best cooking experience available.

*Study based on a single detached residence with three occupants. The standard minimum efficiency was used for both clothes dryers and stove/cooktops. Electricity emissions based on average U.S. baseload generation mix.



FOR MORE INFORMATION

To learn more about propane appliances, visit **Propane.com**.

THE PROPANE EDUCATION & RESEARCH COUNCIL was authorized by the U.S. Congress with the passage of Public Law 104-284, the Propane Education and Research Act (PERA), signed into law on October 11, 1996. The mission of the Propane Education & Research Council is to promote the safe, efficient use of odorized propane gas as a preferred energy source.

1140 Connecticut Ave. NW, Suite 1075 / Washington, DC 20036 / P 202-452-8975 / F 202-452-9054

Propane Education & Research Council

CB5-2023 - Building Code - All-Electric Buildings - Department of Inspections, Licenses, and Permits – Recommendations

Testimony before Howard County Council
February 21,2023

Position: Favorable

Dear Council Members,

My name is Crystal Konny, and I represent the 750+ members of Indivisible Howard County. Indivisible Howard County is an active member of the Maryland Legislative Coalition (with 30,000+ members). We are providing testimony to support CB5 as amended. We are grateful for the leadership of Councilwoman Rigby for sponsoring this bill.

The report requires the Department of Inspections, Licenses, and Permits to report to the County Council with recommendations about changes to the Howard County Building Code that would be needed to require all-electric new buildings and those with major renovations. The report is a step towards meeting climate goals set out by County Executive Ball's Executive Order 2022-12, which Indivisible Howard County strongly supports. The amendments will give us more information about county government-owned buildings, and asks for recommendations on

- how the county will reduce greenhouse gas reductions to achieve the goals laid out in the executive order, with a special focus on entities that receive funds from county government, notably schools and
- how to maximize the use of federal, state, and other climate action incentives to reduce carbon emissions from the residential sector.

The amendments strengthen the bill and provide the framework for future action. For the health of your constituents and the planet, we urge you to pass this bill. We need to show leadership in enacting laws to mitigate the effects of climate change. We need to educate and inform the public about actions they can take. Howard County needs to move further, faster to reduce greenhouse gases.

Thank you for your consideration of this important legislation.

Crystal Konny
Columbia, MD 21044