BEFORE THE PUBLIC SERVICE COMMISSION OF WISCONSIN

Quadrennial Planning Process IV **Docket No. 5-FE-104**

CLEAN WISCONSIN'S PHASE I COMMENTS

Intervenor Clean Wisconsin submits these comments in response to Commission Staff's memorandum ("Staff Memorandum") concerning the Focus on Energy Quadrennial Planning Process IV – Phase I issued on March 8, 2022 (PSC Ref. #432286). Clean Wisconsin appreciates the opportunity to provide this input on behalf of its over 20,000 members and supporters statewide, many of whom are served by the Focus on Energy program ("Focus") and will be directly affected by decisions made in this proceeding. These comments will address each of the five Quadrennial ("Quad") IV - Phase I topics identified in the Staff Memorandum in turn.

QUAD IV - PHASE I TOPICS

I. Alignment of Focus on Energy Performance Goals and Program Offerings with Decarbonization Goals

a. Program savings targets

The Staff Memorandum discussed the desire to align Focus with decarbonization goals. Staff explained how Focus currently integrates emissions and health benefits into its programs, and identified states and districts that are currently aligning, or considering aligning, their performance metrics with decarbonization goals. Staff then summarized stakeholder opinions and presented the Commission with alternative pathways to help select appropriate decarbonization targets. Clean Wisconsin appreciates the time and effort Staff dedicated to providing this helpful and comprehensive summary.

Clean Wisconsin agrees it is necessary and appropriate for the Commission to investigate how to align Focus' program goals and offerings with the state's decarbonization goals. Governor Evers's Executive Order #38 committed Wisconsin to achieving 100 percent carbon-free electricity by 2050 and ensuring that the state fulfills the carbon reduction goals of the 2015 Paris Climate Accord (which requires a 26–28 percent GHG emissions reduction below 2005 levels by 2025).[1] This means that the state needs to start taking bold and aggressive actions to reduce carbon emissions in the building sector as quickly as possible. One of the most important, efficient, and cost-effective strategies to reduce emissions in the building sector is electrification of end-uses (e.g., space and water heating and cooking). Many studies of building decarbonization for other jurisdictions have found a need to rapidly electrify end-uses over the next few decades to achieve long-term decarbonization goals.[2]

Focus is well-positioned to promote building electrification in Wisconsin because of its long history of offering energy efficiency services throughout the state, its existing program platform to offer services to customers, and its existing relationships with contractors and trade allies. Focus could leverage its existing market presence and brand recognition to shift the focal point of its offerings from measures that reduce natural gas consumption through equipment efficiency improvements toward electrification and other measures that reduce both energy use and emissions. This means that Focus should phase out existing rebates for fossil-fuel equipment

[1] Executive Order #38 "Relating to Clean Energy in Wisconsin", *available at* https://evers.wi.gov/Documents/EO%20038%20Clean%20Energy.pdf.

[2] Vibrant Clean Energy, *Minnesota's Smart Grid – Pathways Toward a Clean, Reliable and Affordable Transportation and Energy System* (2018), *available at* https://www.vibrantcleanenergy.com/wp-content/uploads/2018/07/Minnesotas-SmarterGrid_FullReport.pdf; MISO, *MISO Futures Report* (2021), *available at* https://cdn.misoenergy.org/MISO%20Futures%20Report538224.pdf; Goldberg, et al, *A New Era of Load Growth? – Preparing for the Rise of Heat Pumps and EVs in New England* (2020), *available at* https://www.synapse-energy.com/sites/default/files/New_Era_of_Load_Growth_20-040.pdf.

while increasing incentives for electrification and building envelope measures that help reduce energy consumption.

To reform to its programs, Focus must first align its performance targets with the state's carbon reduction goals so that Focus can properly count the benefits of electrification measures. However, establishing appropriate carbon emission reduction targets for Focus will take time. To do this, the state will need to assess and identify long-term pathways to reduce carbon emissions for the entire economy as well as for each sector, including the building sector. This will then allow the state to establish building decarbonization pathways and emissions targets for Focus. Clean Wisconsin recommends that the state conduct a study to develop emission reduction trajectories for the building sector during the Quad IV program period.

In the meantime, Focus should adjust how it sets the overall program performance targets during Quad IV. Currently, Focus has energy savings targets in terms of kWh, therms, and MMBtu.[3] It is useful to use a fuel-neutral metric like MMBtu; as long as kWh is used as one of the primary targets, electrification will not be fully supported because electrification will increase kWh consumption. Therefore, Clean Wisconsin recommends that Focus establish MMBtu targets as the primary program performance targets for Quad IV and use kWh and therms for reporting purposes. Clean Wisconsin also recommends Focus report kWh savings with and without electrification measures to understand how much energy efficiency Focus achieves by reducing kWh consumption.

b. Program considerations and evaluation methodology reform

Focus also needs to make various reforms in the way it evaluates the benefits of its programs under its modified Total Resource Cost ("MTRC") test. Such reforms include the

[3] Focus on Energy, *Focus on Energy 2019–2022 Strategic Plan* (2019), *available at* https://focusonenergy.com/sites/default/files/B_Focus_2019_Strategic_Plan.pdf.

following: (a) include the value of reduced delivered fuels (e.g., propane and fuel oil); (b) use a proper social cost of carbon; (c) use carbon values that reflect grid emissions; (d) incorporate the value of reduced methane leaks; and (e) incorporate non-energy benefits ("NEB"). Given that cost-effectiveness is one of the major topics for the Quad IV - Phase II planning process, Clean Wisconsin will discuss these in detail and make recommendations in its comments on Phase II.

c. Alternatives in the Staff memorandum

The Staff memorandum outlines four alternatives for aligning Focus performance goals and program offerings with decarbonization goals. Clean Wisconsin supports a modified Alternative One that includes elements of Alternative Two. Quad IV should be a transition period and there are certain issues for which additional information, analysis, and planning are necessary to better understand the costs, benefits, and opportunities associated with aligning the Focus programs with decarbonization goals. For example, developing appropriate carbon reduction targets for Focus would require time as it requires a detailed economy-wide study to develop carbon reduction pathways. On the other hand, Focus should immediately make MMBtu savings targets the primary metrics and use kWh and therms targets just for reporting purposes as mentioned above. Focus should also modify its existing programs for Quad IV by incorporating and expanding electrification measures and programs where possible.

These changes need not wait for the analysis of emissions savings targets for Focus; it would be useful to assess emissions impacts from electrification measures, but such a study can be undertaken in a short period of time using existing data on emissions and end-use load profiles. Lawrence Berkely National Laboratory ("LBNL") recently released its "Time-Sensitive Value Calculator" which allows users to estimate benefits of energy efficiency measures using

detailed hourly or sub-hourly load, emissions, and avoided-cost data.[4] This tool should be useful for estimating emissions impacts of electrification measures. In addition, there are several existing studies that have already estimated emissions impacts of electrification measures, some of which should be applicable to Wisconsin. For example, Rocky Mountain Institute recently analyzed emissions impacts from installing heat pumps in Illinois today and found that heat pumps will save emissions in all scenarios analyzed in the study.[5]

The Staff Memorandum further offers three sub-alternatives for stakeholders to consider. Clean Wisconsin recommends the Commission implement Sub-alternative A because a facilitated stakeholder working group as suggested in Sub-alternative A is necessary to reach consensus among stakeholders on this issue and opening another investigation is not necessary.

Clean Wisconsin also agrees with Sub-alternative C. The section above offered several recommendations regarding the enhancements of the measurement and tracking of the program's carbon emission reduction impacts. It would be helpful for the Evaluation Work Group to summarize these and other stakeholder recommendation and to offer its own recommendations.

II. Electrification Programs and Offerings

a. Principles of beneficial electrification

The Staff Memorandum summarized many of the important factors the Commission must consider regarding electrification. Staff referenced the definition of beneficial electrification established by the Regulatory Assistance Project ("RAP"). According to the RAP, electrification is beneficial if it satisfies one or more of the following three principles without adversely affecting the other two: (1) it saves customers money over the long run; (2) it enables better grid

[4] Lawrence Berkely National Laboratory, "Time-Sensitive Value Calculator," (2022), *available at* https://emp.lbl.gov/publications/time-sensitive-value-calculator.
[5] Rocky Mountain Institute, *Building Electrification Helps Illinois Achieve Climate Goals* (2020), *available at* https://www.elevatenp.org/wp-content/uploads/llinois-Electrification-Analysis-final.pdf.

management; or (3) it reduces negative environmental impacts.[6] While Staff mentioned electrification may increase carbon emissions in certain places, they also rightly pointed out that "there is an opportunity cost of forgoing electrification of equipment and appliances with long effective useful lives as the grid is transitioning towards a more renewable supply."[7] Staff elaborated, saying "a missed opportunity to electrify home space heating and water heating equipment today means that the next available opportunity for that home to electrify can be decades in the future."[8]

In order to find the right conditions under which Focus can promote electrification, it is vital to establish principles of beneficial electrification. The RAP principles of beneficial electrification are very useful. There are other definitions worth to considering as well:

- Minnesota's ECO-Act's fuel-switching criteria: The ECO-Act was signed into law in 2021 and expanded the state's energy efficiency program framework to require that any fuel-switching program invested in by a utility "results in a net-reduction of source energy on a fuel-neutral basis," results in a "net-reduction of greenhouse gas emissions," is cost-effective, and that it "improves the utility's system load factor."[9]
- Northeast Energy Efficiency Partnership's ("NEEP") Strategic Electrification: NEEP defines strategic electrification as "powering end-uses with electricity instead of fossil fuels in a way that increases energy efficiency and reduces pollution, while lowering

[6] PSC Ref. # 432286 at 30 (hereinafter "Staff Memorandum").
[7] *Id*. at 31.
[8] *Id.*
[9] Wazowicz, Maddie, "Minnesota Passes the ECO Act, a Modern and Expansive Update to its EE Framework" (2021), *available at* https://www.mwalliance.org/blog/minnesota-passes-eco-act-modern-and-expansive-update-its-ee-framework.

costs to customers and society, as part of an integrated approach to deep decarbonization."[10]

Clean Wisconsin recommends that Focus establish criteria similar to the ones mentioned above to determine when electrification should be promoted.

b. Alternatives in the Staff memorandum

Staff outlines two sets of alternatives for addressing electrification programs and offerings. The first set is related to fuel-switching from unregulated fuels.

Clean Wisconsin recommends pursuing Alternative One for several reasons. First, Focus is best positioned to promote building decarbonization in Wisconsin to meet the state's carbon reduction targets as discussed in Section I. This must include unregulated fuels, otherwise it would make it challenging for the state to meet its carbon reduction targets because there is no other entity so well situated to address various financial and information barriers to installing unfamiliar technology like heat pumps. Second, Focus' MTRC test needs to recognize the fuel-savings benefits customers experience from fuel-switching away from unregulated fuels; by definition TRC tests need to include costs and benefits experienced by program participants. Third, fuel-switching away from unregulated fuels (as opposed to regulated natural gas) is typically a cost-effective option for consumers because such fuels are more expensive than natural gas. A recent study by the Center for Energy and Environment ("CEE") and Elevate Energy on air-source heat pumps in Wisconsin noted that the current cost of propane is about twice as high as the cost of natural gas.[11] Therefore, it is important to offer programmatic support

[10] Northeast Energy Efficiency Partnership, "Strategic Electrification," *available at* https://neep.org/equitable-home-and-building-decarbonization-leadership-network/strategic-electrification.
[11] CEE and Elevate Energy, *FOCUS ON ENERGY EERD REPORT: Air Source Heat Pumps in Wisconsin Multifamily and Single-Family Applications* (2021) at 14, *available at* https://www.mncee.org/sites/default/files/2022-01/EERD_ASHP_Project-Final_Report.pdf.

for such measures. Fourth, as discussed in Section IV below, low-income customers who heat primarily with propane, often in rural locations, often have higher energy burdens relative to the rest of the state, meaning they spend a larger portion of their income on energy than other customers. Therefore, promoting fuel-switching from unregulated fuels is also important for equity purposes.

The second set of alternatives is related to how Quad IV should emphasize beneficial electrification and fuel-switching from utility gas. Like with the alternatives discussed in Section I above, Clean Wisconsin recommends pursuing an approach between Alternative One and Two above. As mentioned, Quad IV should be a transition period where intentional research, pilot activities, planning, and stakeholder outreach are undertaken to develop a portfolio of electrification programs. Meanwhile, Focus should continue offering its existing program that provide incentives to air-source heat pumps replacing natural gas. The Commission should also consider expanding Focus' electrification offerings within the program budget, provided that such fuel-switching meets the beneficial electrification criteria to be established for Focus, as discussed above.

Expanded electrification offerings should be paired with incentives to encourage adoption of heat pumps by those currently using electric resistance for heat space heating. The recent study by the CEE and Elevate Energy found that nearly 400,000 single family and multifamily Wisconsin housing units use electric resistance heat and are strong candidates for heat pumps to reduce energy use, energy costs, and emissions.[12] The high coefficient of performance ("COP") of heat pumps relative to electric resistance heating will help reduce peak demand, making conversion of resistive heating to heat pumps an important strategy for reducing electric sector

[12] *Id.*

investments associated with electrification. The CEE and Elevate Energy study suggests that programmatic support may be needed, especially for multifamily electric resistive customers, due to existing barriers for renters.

Clean Wisconsin understands that Focus' current budget constraint is one of the biggest barriers to promoting electrification and plans to provide comments regarding potential approaches to allocate funding to electrification measures within the current budget in Phase II comments.

III. Collaboration Between Focus and Utility Demand Response Programs

a. Current Status of Focus' collaboration with utility demand response programs

Demand response ("DR") programs in Wisconsin are not considered energy efficiency programs. This causes complications for Focus as it attempts to engage in more dynamic programs. Wis. Stat. § 196.374(1)(d) defines an energy efficiency program (i.e., Focus) as a program for "reducing the usage or increasing the efficiency of the usage of energy" by a participant or entity, and "does not include load management." The statute also provides that load management programs are programs operated by utilities to control or manage demand.[13] Despite these limitations, Focus has engaged with utility DR programs through the promotion of DR-enabled technology and collaborative marketing. And, Focus is currently supporting utility DR programs in Wisconsin with an emphasis on marketing and rebates for smart thermostats.[14] A study conducted by Focus also recommended additional integration opportunities with heat pump water heaters, strategic energy management for wastewater treatment plants, and residential behind-the-meter battery storage.

[13] Wis. Stat. § 196.374(1)(f).
[14] Staff Memorandum at 70.

The Staff Memorandum offered a comprehensive summary of the status of the collaboration between Focus and utility DR programs in the state. Since 2021, Focus has actively supported the Madison Gas & Electric ("MGE") program with its MGE Connect by providing data about which customers had purchased eligible thermostats as well as complementary marketing. The success of the program is driving MGE and Focus to investigate ways to expand the collaborative efforts, such as including easily accessible links between their websites to further promote the joint offerings and expanding into new DR-compatible technologies.[15]

Focus also has several efforts underway with Wisconsin Power and Light Company (WP&L). WP&L's Alliant Energy Smart Hours program, which would include bring-your-own thermostat, controlled water heating, and thermal energy storage pilot programs, intended to use enrollment information for customers who purchased smart thermostats through the Focus Online Marketplace. This effort was halted due to technical issues, but Focus continues to support this initiative as needed.[16] Focus is also planning a partnership with WP&L's other DR initiative, the Home Energy Monitoring Pilot, in which Focus would offer smart plugs in the Focus Online Marketplace capable of interfacing with the home energy monitoring technologies installed through the program.[17]

Additionally, Focus is collaborating with Northern States Power – Wisconsin's ("NSPW's") AC Rewards program, which offers annual bill credits to customers who enroll their smart thermostats and respond to DR events. Focus helps NSPW promote this program. In exchange, NSPW offers bonus incentives to customers who purchase thermostats through Focus.

[15] *Id.* at 71.
[16] *Id.*
[17] *Id* at 72.

Focus is exploring ways to enhance the relationship further through marketing, data sharing, and complementary webpages.[18]

Commission Staff and other stakeholders have provided other recommendations for Focus that we support, including:

- performing customer surveys to help inform customers of DR opportunities and assess general awareness of demand management;
- reviewing existing energy efficiency data to help inform utilities about which traditional energy efficiency measures provide summer and winter coincident demand savings;
- investigating measures that can help mitigate winter peak;
- reviewing existing load shape assumptions as part of continuous improvement;
- reaching out to participating utilities without DR programs to help promote potential programs;
- documenting technical barriers experienced by utilities; and
- developing a process framework to guide and inform collaboration.[19]

b. Winter DR program

Of these recommendations, Clean Wisconsin would like to emphasize the value in planning for winter DR strategies. As Wisconsin continues to electrify its heating load, winter DR will be of increasing importance, and Focus should consider measures that can target both summer and winter peak as having higher value as they are better long-term initiatives. Behind-the-meter battery storage, for instance, is a highly flexible technology that is being implemented by energy efficiency programs throughout the country. Vermont's Green Mountain Power partnered with Renewable Energy Vermont to design a bring-your-own home battery program

[18] *Id.*
[19] *Id.* at 73-76.

that helps customers buy down the cost of a battery based on the amount of energy they would like to enroll.[20] Electrification of water heaters in the form of a heat pump water heaters will also create an important opportunity to expand the role of electrification to a DR resource; a typical HPWH has a hot water tank and can use it as a thermal battery. This will not only help manage winter peak loads on the distribution and transmission system, but also enable electrification to support the penetration of renewable energy by heating the water tank when the grid has excess renewable energy.

For example, for many years numerous co-op utility members of the National Rural Electric Cooperative Association have used simple, one-way communication technologies (e.g., radio or pager) to control traditional electric water heaters for emergency demand-response programs.[21] And, since about 2018 utilities including Arizona Public Service, United Illuminating, and National Grid have piloted new energy management technologies to aggregate, monitor, and control heat pump water heaters for demand response.[22] Focus should serve as a centralized landing page for a similar program, even though the actual demand response events would be called by the utilities.

[20] Green Mountain Power, "Bring your own device," *available at* https://greenmountainpower.com/rebates-programs/home-energy-storage/bring-your-own-device/.
[21] Jeff St. John, "Heat Pump Water Heaters Can be Demand Response Assets," (2019), *available at* https://www.greentechmedia.com/articles/read/report-smart-water-heaters-could-pay-back-200-per-year-in-grid-services#gs.lehoae.
[22] EnergyHub, "National Grid selects EnergyHub as the platform provider to enhance its Bring Your Own Device demand response program" (2018), *available at* https://info.energyhub.com/blog/national-grid-bring-your-own-device-demand-response-program; EnergyHub, "Arizona Public Service chooses EnergyHub's Mercury DERMS to deliver innovative grid-edge DER management strategies" (2018), *available at* https://info.energyhub.com/blog/arizona-public-service-energyhub-mercury-derms; EnergyHub, "United Illuminating announces successful income-eligible water heater program in partnership with EnergyHub and Rheem" (2019), *available at* https://info.energyhub.com/blog/united-illuminating-der-program.

c. Cost-effectiveness model for DR

Another way Focus can help drive DR adoption in Wisconsin is to develop a cost-effectiveness model that adequately captures the value of DR programs. This model would serve two purposes: 1) displaying the benefit-cost ratio consistently with other program offerings, and 2) helping assist with optimizing program design in accordance with the goals of the state. Clean Wisconsin will discuss this topic in detail and offer recommendations in Phase II comments.

d. Alternatives in the Staff memorandum

The Staff Memorandum outlines four alternatives for addressing collaboration with utility DR programs.[23] Clean Wisconsin supports the directives consistent with Alternative One. This includes Focus's role in performing research and development into innovative DR strategies to maximize access and savings potential for customers. Focus is well positioned to proactively help develop DR programs in Wisconsin because of its active collaboration with Wisconsin's utilities, access to customer enrollment data, and willingness to drive innovation. Focus should seek opportunities for collaboration beyond its existing initiatives by recommending that utility-specific programs evolve into statewide offerings. While the technical barriers faced by each utility may be distinct, the objectives and strategies can be streamlined with the help of Focus. Combining program design and implementation efforts would have innumerable benefits to both utilities and customers.

Focus is already engaged in several utility-led DR programs, some of which have faced technical hurdles. By developing a process framework consistent with Commission Staff's recommendation, Focus can increase collaboration statewide. In this way, Focus can help utilities share lessons learned and ultimately support each other—and reduce redundancy in

[23] Staff Memorandum at 79-80.

overhead costs in the process. Additionally, centralizing Wisconsin DR programs through Focus will reduce customer confusion by allowing all customers to access the programs from a single point of contact. Focus can leverage its Focus Online Marketplace as a source of products and information for customers statewide. Utilities are already directing customers to the Focus Online Marketplace through their individual websites, demonstrating the site's value as a centralized tool.

Clean Wisconsin suggests Focus convene a working group dedicated to DR, as recommended by Commission staff. This group can aid in the development of the DR cost-effectiveness model, develop a process framework, help overcome utility-specific technical barriers, discuss program goals, and ultimately help administer the implementation of DR programs across the state.

IV. Utility Voluntary Programs

a. Status of and potential for utility voluntary programs

Wisconsin utilities have already demonstrated that voluntary programs can enhance Focus offerings and fill service gaps. Four major utilities in Wisconsin offer seven voluntary utility programs with a combined 2022 program year budget of over $5 million.[24] Four of these programs target low-to-moderate income ("LMI") customers, and the Commission has historically determined these LMI programs are justifiable as they provide equitable opportunities for participation in energy efficiency programs. For example, We Energies and WSPC's Residential Assistance Programs are highly successful with annual savings goals of 35,700 therms[25] and 10,710 therms[26] in 2022 respectively. We Energies also reporting that the

[24] *See* Staff Memorandum at Table 3.
[25] PSC REF#: 423095.
[26] PSC REF#: 423060.

savings for Residential Assistance Program participants was higher than savings achievement for non-income qualified customers served by the Focus Home Performance with ENERGY STAR program.[27]

Another advantage of voluntary programs is that utilities are able to design programs customized for their service area, which range from primarily rural and agricultural to urban and industrial. Local utilities are best positioned to understand their customer base and therefore can respond to specific customer needs. For example, Northern States Power Company is expanding their Community Conservation Program to a tribal community in their service area.[28] This program addresses an energy efficiency service gap and targets underserved rural and LMI customers. Its success will likely depend on existing relationships between the local utility and community members. Additionally, both of the Residential Assistance Program discussed above are now piloting expansions to multifamily units and non-profit organizations, in order to address noticed energy efficiency service gaps.

There is also room for utility voluntary programs to pilot and assess the implementation of emerging technologies like air source heat pumps or hot water heat pumps. This type of program is modeled by WP&L's Home Energy Monitoring Pilot, which is evaluating how energy monitors, cloud technology, and smart plugs can contribute to energy savings by identifying inefficient equipment, testing behavioral demand response capabilities, and providing personalized customer engagement.[29]

[27] PSC REF#: 420886.
[28] PSC REF#: 414184.
[29] PSC REF#: 415269.

b. Focus collaboration can improve voluntary utility programs

Voluntary utility programs have demonstrable benefits to Wisconsin ratepayers, however, there are efficiencies to be gained through a formal collaborative framework between Focus and voluntary utility program. Focus infrastructure, including data tracking, evaluation, and administrative processes, should be leveraged to reduce utility administrative burdens. This could result in an expansion of voluntary programs from utilities without current offerings. Some voluntary utility programs have already benefited from collaboration with Focus and utility staff, and a structured collaboration would result in those planning benefits extending to utilities that have not collaborated with Focus to date.

Additionally, structured coordination could identify opportunities for novel energy efficiency programs. Managing the impacts of electrification will require a coordinated approach, which should include the coordination of utility voluntary programs with Focus offerings. For example, improving building envelope efficiency will reduce peak load impacts for customers who electrify heating loads. The cost effectiveness of providing incentives for both building shell and electrification should be considered together.

Finally, the 2021 Energy Efficiency Potential Study found that the residential sector could especially benefit from additional energy efficient investments.[30] Focus should explore the use of performance-based ratemaking ("PBR") and performance incentive mechanisms ("PIMs") to achieve additional cost-effective savings for residential customers.

c. Alternatives in the Staff memorandum

The Staff Memorandum outlines five alternatives for addressing Focus and utility collaboration. Clean Wisconsin supports the Commission adopting Alternative Two, establishing

[30] The Cadmus Group, 2021 Focus on Energy: Energy Efficiency Potential Study Report (2021), *available at* https://focusonenergy.com/sites/default/files/inline-files/Potential_Study_Report-FoE_Efficiency-2021.pdf.

a formal framework for enhanced collaboration between Focus and utilities with modifications as detailed below. A formal framework for enhanced collaboration between Focus and utilities could maximize data sharing opportunities, identify new and innovative programs, and explore the use of PBR and PIMs.

There is clear and considerable potential for additional benefits from expanding energy efficiency in Wisconsin. The recent energy efficiently potential study found that doubling funding for energy efficiency funding could yield 171% more therms savings and 48% more kWh savings over the next 12 years.[31] Voluntary utility programs could make up some of that funding gap and enable Wisconsin to achieve further cost-effective energy savings.

As noted in the Staff memorandum, data exchange is complex. There are potential issues including customer privacy, data format and definitions, frequency of data exchange, roll out of updates, and legacy system compatibility. With each utility inputting and transferring data, the complexity increases. Beyond identifying data sharing opportunities, the Commission should design data sharing capabilities among the utilities that allows for forward compatibility, ensures flexibility, and achieves efficiencies.

Already two utility programs are "designed to increase participation in Focus to generate additional savings while building upon the existing Focus program delivery framework."[32] When demonstrating that voluntary programs are in the public interest and cost effective, it is important that utilities only claim the incremental savings from their programs. This ensures that savings are not double counted between Focus and the utilities and that ratepayer funds are used effectively. The Commission should give guidance on appropriate methodologies to quantify

[31] *Id.*
[32] Staff Memorandum at 55

incremental savings, a role that should be added to the Proposed Focus-Utility Collaborative Framework.

V. Affordability: Low-Income Programs and Offerings

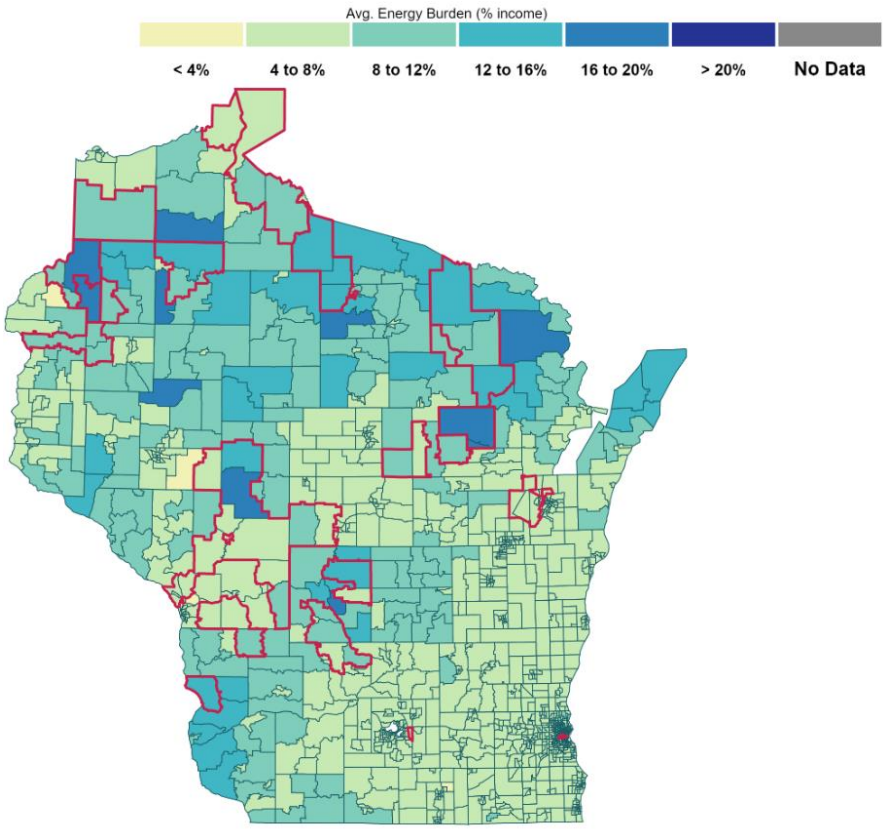
a. Affordability in Wisconsin

Households with high energy burdens, defined by the portion of income spent on energy, may face difficult choices to make ends meet. For instance, they may have to choose between paying for necessities like food, healthcare, and energy.[33] Energy efficiency can provide savings to help alleviate these conditions.

Energy is unaffordable in some communities in Wisconsin. Energy burden is generally considered to be too high when energy expenses exceed 6 percent of income.[34] According to a 2021 report on energy poverty in Wisconsin, numerous census tracts in the urban areas of Milwaukee, Racine, and Kenosha experience average energy burdens in excess of 8 percent.[35] Using U.S. Department of Energy's Low-Income Energy Affordability Data Tool, Clean Wisconsin found that low-income customers in a large number of rural and urban census tracts throughout the state have average energy expenditures in excess of 8 percent of income, as shown below. In 10 largely rural census tracts, low- to moderate-income households experience energy expenditures from 16 to 20 percent of income.

[33] *See* Drehobl, A., L. Ross, *Lifting the High Energy Burden in America's Largest Cities: How Energy Efficiency Can Improve Low Income and Underserved Communities* (2016), *available at* https://aceee.org/.
[34] ACEEE, n.d, *Understanding Energy Affordability: How Energy Efficiency Can Alleviate High Energy Burdens*, *available at* https://www.aceee.org/sites/default/files/energy-affordability.pdf.
[35] This average energy burden includes households of any income level that primarily use electricity or utility gas for heating. *See* Downer, L., S. Leffin, M. McFarlane, N. Schaefer, "Addressing Energy Poverty in Wisconsin Communities" (2021), *available at* https://lafollette.wisc.edu/research/publications/addressing-energy-poverty-in-wisconsin-communities.

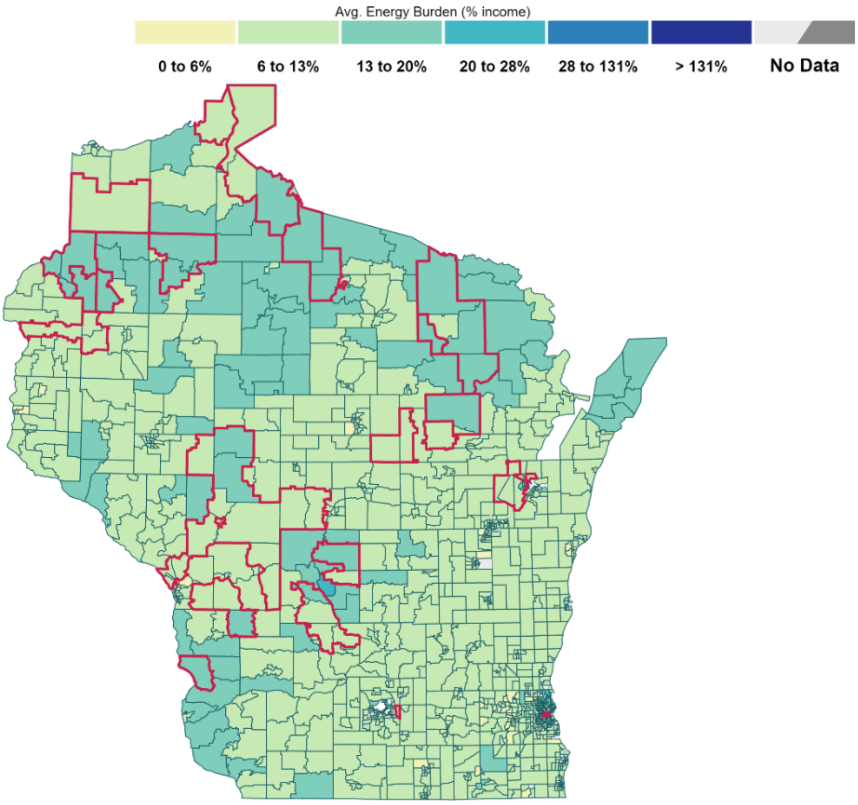
Figure 1. Energy Burden for Low- to Moderate-Income Customers with Utility Gas or Electricity as the Primary Heating Source



Source: U.S. Department of Energy Low-Income Energy Affordability Data Tool. Notes: Includes households from 0 to 80 percent of State Median Income primarily using utility gas or electricity for heating. Red outlines indicate tribal areas.

High energy burdens are also seen with users of bottled gas (propane) for heating—a common heat source in rural areas. In almost all census tracts in the state, low- to moderate-income households using bottled gas experience energy burdens between 6 and 13 percent, as shown in Figure 2 below. In a substantial number of tracts, such households experience energy burdens as high as 13 to 20 percent of income.

Figure 2. Energy Burden for Low-Income Customers with Bottled Gas as the Primary Heating Source



Source: U.S. Department of Energy Low-Income Energy Affordability Data Tool. Notes: Includes households from 0 to 80 percent of State Median Income primarily using bottled gas for heating. Red outlines indicate tribal areas.

The remainder of this section focuses on programs for low-and moderate-income customers. We will address goals and program design for rural customers in Phase II.

b. Cost-effectiveness tests

The primary cost-effectiveness test used in Wisconsin is the MTRC test. By definition, a TRC-based test needs to include costs and benefits to program participants in addition to system costs and benefits.[36] However, many states inadequately incorporate participants' benefits, especially non-energy benefits ("NEBs"); as a result, low-income programs are often not found to be cost-effective. To address this issue, some states exempt programs targeting the low-

[36] The National Energy Screening Project, *National Standard Practice Manual for Benefit-Cost Analysis of Distributed Energy Resources* (2020), *available at* https://www.nationalenergyscreeningproject.org/national-standard-practice-manual/.

income sector from strict cost-effectiveness thresholds. In the Midwest, for example, Iowa, Missouri, and Illinois do not require that programs for low-income customers pass a cost effectiveness-test.[37]

In addition to relaxing the cost-effectiveness requirements for low-income programs, Wisconsin should properly account for NEBs in benefit-cost analysis of its efficiency programs. NEBs associated with low-income efficiency programs can be substantial, and as a result these programs are far more likely to be cost-effective when NEBs are included. For example, Massachusetts conducts thorough cost-effectiveness analysis for low-income customers and incorporates granular NEB factors, in terms of dollar benefits per participant.[38] As a result, the state is finding that benefits for low-income customer programs exceed their costs; the benefit-cost ratio of the income-qualified programs was nearly 2.0 for the previous 3-year program term from 2019 to 2021.[39]

Even more importantly, however, cost-effectiveness testing that includes NEBs can provide a framework for prioritizing low-income measures and program designs that produce the most value. Wisconsin should prioritize adding those NEBs that are particularly beneficial for low-income populations, such as improved health, safety, comfort, and economic well-being, including avoided credit and collection costs, into the benefit-cost analysis. Doing so could result in a shift in the types of programs and measures that Focus offers.

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[37] National Energy Screening Project, *Database of State Efficiency Screening Practices, available at* https://www.nationalenergyscreeningproject.org/state-database-dsp/database-of-state-efficiency-screening-practices/.

[38] Takahashi, et al, *Missed Opportunities – the Impacts of Recent Policies on Energy Efficiency Programs in Midwestern States* (2021) at Appendix B.2. Participant Non-Energy Impacts. Synapse Energy Economics, *available* at https://www.synapse-energy.com/missed-opportunities-impacts-recent-policies-energy-efficiency-programs-midwestern-states.

[39] Mass Save. n.d, "2019, 2020, 2021 Electric & Gas Summary Report," *available at* https://www.masssavedata.com/Public/PerformanceDetails.

c. Goals for low-income programs

Reorienting the Focus programs to address the needs of low-income populations will require additional shifts beyond those discussed above. Along with accounting for NEBs and exempting low-income efficiency programs from strict cost-effectiveness thresholds, the Commission should communicate Focus' priorities by instituting goals for low-income programs. The Staff Memorandum notes that Focus lacks goals related to affordability.[40] Without goals for this sector, there likely is—and will continue to be—less emphasis on ensuring that LMI households experiences the benefits associated with energy efficiency investment and the ability to manage their energy bills.

Affordability goals are gaining traction in the United States. For example, New York has an affordability goal tied to keeping energy expenses below 6 percent of income.[41] In Illinois, a stakeholder process is developing metrics to achieve policy goals related to affordability and equity.[42]

Affordability goals for the low-income sector should be accompanied by performance metrics. Metrics define the information that utilities, regulators, and other stakeholders can use to monitor performance of the programs. Well-designed performance metrics should be:

- Tied to goals: Performance metrics should convey whether progress toward the goal(s) is being achieved.

[40] Staff Memorandum at 80.
[41] New York State Public Service Commission, "PSC Announces Expansion of Low-Income Energy Affordability Program: $129 Million in Additional Benefits for Low-Income Energy Affordability Programs to Deliver Relief to Over 1 Million Low-Income Households in New York" (2021), *available at* https://www3.dps.ny.gov/pscweb/WebFileRoom.nsf/Web/9F47AB52C5261E2585258730005E3F3E/$File/pr21084.pdf?OpenElement.
[42] Illinois Commerce Commission Staff and Rocky Mountain Institute, *Performance and Tracking Metrics Workshop Summary pursuant to 220 ILCS 5/16-108.18(e)* (2021), *available at* https://www.icc.illinois.gov/downloads/public/informal-processes/ICC_Metric_Report_12-01%20Final.pdf.

- Clearly defined: There should be a description of and methodology for quantifying the performance metrics, including data definitions and formulas. Also, responsibility for measuring, calculating, reporting, and verifying the metrics and how often these tasks will be performed should be established.
- Comparable: Performance metrics should have applicable baselines. Baselines are used on a going-forward basis for context; illuminate the level to which data fluctuates over time; and inform the extent to which the observed fluctuations are acceptable, or if changes are desired or necessary.
- Readily Available: Performance metrics should be available, obtainable, and updatable without substantial difficulty. Readily available information includes data that is currently reported for compliance with existing regulations. It also includes data that can be gathered without imposing new and/or excessive costs, technologies or methodologies, and administrative burdens on both utilities and regulators.
- Objective: Ideally, performance metrics should address outcomes over which Focus has some degree of control. Exogenous factors often have an impact on some measures commonly used for affordability, such as energy burden. In decision-making processes, emphasis should be on metrics that are objective and reasonably free from external influence.
- Easily Interpreted: Performance metrics should be easy for stakeholders to understand and communicate to others. Naming conventions should be intuitive, calculations should be transparent, and definitions should be memorable.

- Verifiable: Performance metrics should lend themselves to evaluation and verification wherever possible. Metrics that require costly, multi-year studies or complex calculations or models to validate and update may not have value.[43]

Performance metrics should shed light on how well the programs are addressing affordability goals and carry significant weight in energy efficiency decision-making. However, to the extent that a metric does not meet all of these criteria, it may nonetheless be desirable to track it for informational purposes. Tracking performance over time relative to the baseline conditions may provide information on barriers to program success or unintended impacts of the program and thus suggest ways to improve the program.

Specific performance metrics related to low-income programs should include lifetime electric, gas, and other fuel energy savings for participants. Other metrics that are indirectly impacted by the program should be considered as tracking metrics, including:

- Percentage of participants who request payment assistance in the 12-month period following treatment, as compared to the percentage of the same customers who requested payment assistance in the 12 months prior to treatment.
- Percentage of participants with an active payment plan in the 12-month period following treatment, as compared to the percentage of the same customers with an active payment plan in the 12 months prior to treatment.
- Percentage of participants who are in arrears in the 12-month period following treatment, as compared to the percentage of the same customers who were in arrears in the 12 months prior to treatment.

[43] *See* Synapse Energy Economics and Sandia National Laboratories, *Performance Metrics to Evaluate Utility Resilience Investments* (2021), *available at* https://www.synapse-energy.com/sites/default/files/Performance_Metrics_to_Evaluate_Utility_Resilience_Investments_SAND2021-5919_19-007.pdf.

- Percentage of participants who are sent a disconnection notice in the 12-month period following treatment, as compared to the percentage of the same customers who are sent a disconnection notice in the 12 months prior to treatment.
- Percentage of participants who are disconnected for nonpayment in the 12-month period following treatment, as compared to the percentage of the same customers who are disconnected for nonpayment in the 12 months prior to treatment.

In addition to the energy burden data currently required to be submitted by utilities,[44] the equity measurements noted by Staff relating to participation and accessibility should be tracked for informational purposes.[45]

d. Funding

More funding would help address the unmet needs of low-income households in Wisconsin. However, diverting funds from the non-low-income residential sector could reduce the reach of residential programs and will mean that fewer residential customers will see program benefits. It is important that Focus continue to equitably and consistently serve all ratepayers who are customers of member utilities. While Clean Wisconsin appreciates the value of certain recommended program modifications, it is also aware that too many changes, too fast, have the potential to confuse customers and undermine marketing efforts. Increased funding would ameliorate these unintended consequences.

As noted in the Staff Memorandum, additional funding may be available as a result of the Bipartisan Infrastructure Bill. Other funding sources or partnerships may be available as well. These alternative sources should be pursued. If Focus is not eligible to manage these funds, the

[44] Public Service Commission of Wisconsin, "PSC Announces Requirement for Utilities to file Workforce and Supplier Diversity, Affordability Data" (2021), *available at* https://apps.psc.wi.gov/APPS/NewsReleases/content/PDF_download.aspx?id=679.
[45] Staff Memorandum at 99.

resulting offerings should be designed to complement Focus's portfolio—e.g., by filling in gaps—rather than competing with them. Alternatively, such alternative funding sources could be used to free up funding for Focus to address underserved market segments more deeply.

e. Alternatives in the Staff memorandum

The Staff Memorandum outlines five alternatives for addressing affordability. However, the available data do not provide a clear indication of the extent to which the existing Department of Administration ("DOA") programs are subscribed, have wait lists, effectively reach target populations, or address the energy efficiency needs of participants. There are also data gaps with respect to low-income customer participation in Focus programs. To this end, the Commission should require Focus to conduct a needs assessment for low- to moderate-income customers and rural customers that considers need for and participation in both the DOA and Focus programs to inform a decision about the alternatives. Such a study should investigate low-income barriers to fuel-switching to allow a proactive approach for this sector. Generally, low-income populations face large barriers to fuel-switching. This is especially problematic as use of the gas system declines and there are fewer customers to cover its fixed costs, which will result in increasing rates for those still on the system, including those who face barriers to switching, such as low-income populations and renters.

The Staff Memorandum also outlines two sub-alternatives that could be pursued individually, jointly, or not at all. The Commission should consider adopting both sub-alternatives A and B. Sub-Alternative A would seek to address a failing of energy decision-making that is endemic throughout most of the United States. Gaining community input into and acceptance of efficiency programs will help with identifying the current barriers and creating and implementing solutions to reduce those barriers. With respect to Sub-Alternative B, as discussed

above, establishing performance metrics or indicators such as energy savings and participation is critical for ensuring the effective implementation of low-income programs and enhancing program benefits.

Dated this 30th day of March 2022.

Respectfully Submitted,

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