Community Power
2720 E 22nd St
Minneapolis, MN 55406
www.communitypowermn.org

May 13th, 2022

Will Seuffert
Executive Secretary
Minnesota Public Utilities Commission
121 7th Place E., Suite 350
St. Paul, MN 55101

In the Matter of a Petition by CenterPoint Energy and the City of Minneapolis to Introduce a Tariffed On Bill Pilot Program (Docket No. G-008/M-21-377).

We thank the Commission and staff for the opportunity to offer Reply Comments and for all parties to continue this important discussion.

It remains very clear to us that Tariffed-On-Bill Financing - and specifically Pay-As-You-Save - is an essential tool to pursue in Minnesota to address unresolved access barriers to the money required for impactful energy efficiency upgrades. We believe that energy efficiency is understood by all on the docket as a least cost resource. Efficiency access is a critical tool both for mitigation of root causes of increasing instability and as a shield communities and the grid from its impacts at all levels - economy, climate, and geopolitical. Although we have come a long way in the 40-50 years since the foundation of federal weatherization in 1976 and the state-specific Conservation Improvement Programs in 1983, the tools we have today have not come close to serving everyone who needs them and is not on track to do so because of restrictive design-features and funding ceilings. These tools alone have no plausible way to scale up to meet need because of those barriers. We hope our initial comments and the testimony of others have made it clear just how real and pervasive these barriers are. However, these barriers are addressable if we pay attention to lived energy users' realities and needs, and apply best practices from within and beyond Minnesota.

As we noted in the original docket #19-524, throughout the stakeholder processes, and in our Initial Comments; this Inclusive Financing program is a pilot for Minnesota - a step towards innovation that is grounded in over a decade of strong field-testing, and a local feasibility study that showed promise for Minnesota. It is unsurprising that Centerpoint's program still has issues to address (which our recommendations center on): the Company is not and will not be the program operator, and has not yet received approval to engage a qualified PAYS program operator. That field experience, the associated documents, access to modeling, and best practices is an obvious and critical next step for creation of the pilot.

We ask that the Commission approve a petition for an Inclusive Financing pilot with the modifications and directives as outlined in our recommendations, so that the more detailed next stage of program design can begin.

In our Reply we will outline:

- **<u>AREAS OF CLARITY</u> on the record in which to ground our dialogue**. This includes areas to celebrate how far we've come in Minnesota; highlighting the problems many commenters have identified around inequity and wide gaps in who is being served; noting PAYS as an incredibly nationally successful and locally studied tool - yet untried in Minnesota and with a willing local utility and committed local governments, and eager prospective participants.
- **<u>DISCUSSION OF KEY ISSUES</u> raised by commenters that we echo and are addressed in our recommendations.** These issues are all relevant and within the scope of this docket and require either evaluation by a pilot, or clear direction for changes from the Commission and then evaluation by a pilot (consumer protections, utility costs).
- **<u>DISCUSSION OF CIP AS ONE OF MANY TOOLS</u>, but neither a replacement nor proper venue for this petition.** Because this is not a CIP docket, discussing other CIP programs is outside the scope of this filing but important to address directly based on recommendations by other commenters.
- **<u>DISCUSSION OF OTHER TOPICS</u> raised by commenters that are misinformed and/or unsubstantiated that can be set aside as irrelevant.** This includes issues that require reiteration of how the tool works for stakeholders who may not be clear. It also includes issues that are important but addressed without additional recommendations.
- **<u>OUR FULL RECOMMENDATIONS</u>** This list comes from both our original analysis as well through additions and updates from the insights of commenters (p. 24-26)

AREAS OF CLARITY

Minnesota energy users will face rising energy uncertainty and instability in the coming years. This instability will come from geopolitical events (e.g. Ukraine/Russia conflict that have impacted natural gas supplies), supply chain and demand disruptions (e.g. COVID pandemic bottlenecking equipment), increasing climate events (e.g. Feb. 2021 Texas Freeze spiking wholesale gas prices). More and more people will be coming to places like Minnesota because of drought, political unrest, and climate impacts.

What does this future instability with unpredictable costs mean for our discussion here about the efficiency programs of a gas utility? Firstly, it is essential to prepare our communities, our housing stock, and our grid *now* to be resilient to spikes in fuel costs, poor outdoor and indoor

air quality from wildfires or extended periods of sheltering in place, severe weather, and extreme cold and heat. Insulation/ air-sealing/HVAC upgrades are a core part of making those events survivable from a health and budget perspective. Secondly, in order to build that resilience, we must enable people to access efficiency programs and build new ones that best suit community realities. Widening wealth inequality and the size of these collective problems means we cannot offload these challenges onto individuals through time and/or cost burdens and expect a positive, timely or effective resolution.

Thankfully - energy efficiency is both recognized as a least-cost resource, and the Minnesota legislature has given a mandate to aggressively pursue investments in it. In its guidance, the legislature makes "cost-effective energy efficiency savings are preferred over all other energy sources" in order to "reduce utility costs for businesses and residents, improve the competitiveness and profitability of businesses, create more energy-related jobs, reduce the economic burden of fuel imports, and reduce pollution and emissions that cause climate change.[1] However, widespread adoption has been more complex because it has been pursued in this individualized way where the full cost is shouldered household by household rather than invested in systematically as critical energy infrastructure by the utility and then paid back household by household (like power plants or electric/gas distribution systems).

Despite that, existing efficiency programs (CIP & LI-CIP) have served thousands of people since their inception. Efficiency and demand-side management have a growing presence in utility resource plans and deepened state goals - thanks to advocacy by stakeholders, many of whom are present in this docket, thousands of Minnesotans, and diligent decisions by the Commission and legislature. For Centerpoint in 2022, specifically, we can look to celebrate expanded investments in pre-weatherization, income-eligible program budgets, as well as new geography-based auto-qualifications (e.g. Minneapolis Green Zones and Areas of Concentrated Poverty [ACPs]), as several stakeholders note in the record. This geography-based designation for LI-CIP reaffirms our observation in our Initial Comments, which we cannot stress enough: income-testing is *not* done for the benefit of low-income people. It is a proxy for "highest need" and a stop-gap to help allocate limited funding. All of the above shows the growing alignment that the benefits of lowering barriers and deepening access to efficiency outweigh the costs or perceived risks.

Amid the causes for celebration in Minnesota, we are still massively underserving thousands of people in the residential sector, all of whom are obligated to pay for CIP utility charges, but have no ability to meaningfully access the direct benefits of them. We are massively undeserving both the need and the opportunity for efficiency (see section "Discussion of CIP"). There must be mechanisms for everyone to access the funds they pay into that meet their financial reality, and go beyond low-cost single measures to comprehensive energy savings measures.

[1] Minn. statute 216B.2401; 216B.241

The success of the Pay-As-You Save program in addressing the gaps we have not yet solved ourselves is striking. The numerous case studies cited by multiple commenters - in particular depth by the CEOs - demonstrate this, as does the full text of the 2019 Cadmus Study, and the letters of testimony from several jurisdictions. All of these are on the record and will only grow - more and more jurisdictions are seeking it out or having it brought to them by energy users. The investor-owned utility Evergy launched its PAYS program in Missouri in January 2022, and already has a waitlist over 1,000; the investor-owned gas utility Spire also recently got approval for a $10 million/year PAYS program. As the Cadmus study showed, what Centerpoint can open up for energy users in Minnesota - as an investor-owned gas utility - is the floor not the ceiling for the possibilities in Minnesota. Minnesota's successes to date importantly do not in any way mean that we cannot or should not learn and pilot ideas from other jurisdictions, nor that we are adequately serving everyone.

What we have here before us is a pilot, which limits exposure while exploring vetted but untried proposals. Minnesota utilities regularly operate pilots: cost-bound, time-bound ways to test ideas that still hold some uncertainty because they have not yet been done in Minnesota, or where pieces of them have not been done anywhere before. Pilots are not pulled out of thin air - there must be well-vetted technology, studies, customer engagement or all of the above. Tariffed-On-Bill is an excellent example that checks all of those boxes. The cost estimates ($5.6-$8.1 million) are on par with other approved Minnesota pilot budgets, even with Centerpoint's highly conservative assumptions about default rates (4%), and the added utility rate of return (4.92%) (more on this below in the "Key Issues" section).

People in Minnesota are asking the Commission for this tool. There have been over one hundred public comments participating across two distinct dockets, and over a thousand more have requested Xcel, Centerpoint, and the City for a program like this. Good policy will be made because it listens to both data (our own in Minnesota, and the work of others) as well as lived experience. We have an obligation to sustain our successes and to be very honest and very specific about where and *why* our programs are failing, frustrating, alienating, or burdening people.

DISCUSSION OF KEY ISSUES RAISED THAT ARE ADDRESSED WITH RECOMMENDATIONS

CONSUMER PROTECTIONS

Consumer protections have been brought up by multiple parties (CUB, ECC, Legal Aid, SRA), and we have those same questions about any program that is *not* engaging the PAYS mechanism, its supporting documents, and a qualified PAYS program operator. Separately, there seem to be a significant number of fundamental misconceptions about the consumer protections of PAYS program, which we address in the "Other Topics" section that can be dismissed as lacking basis in evidence.

The Commission should direct Centerpoint to explicitly use the PAYS model to prevent cherry-picking of some features without the supporting foundations. PAYS - its processes, supporting documentation, and tariff design have been developed over many years and have built in robust consumer protections and quality assurance that have resulted not only in higher levels of acceptance rates program, investment in efficiency, and net savings, while also seeing zero disconnections and widespread community support. Program development details should be worked out after a program operator has been engaged, not added before that entity (with the most intimate knowledge of the program and also accountable to those details) is brought on board. This request for a PAYS-specific program is echoed throughout the record, and has been the grounding evidence and field-testing throughout stakeholder conversations in Minnesota since 2015.

Even with a PAYS model in place, which has no track record of disconnections ever occurring, we support and echo the recommendations of other commenters (CEOs, CUB) for the Commission to freeze disconnection for pilot participants as a best practice for any pilot, and encouragement to energy users participating in something new.

The Company's imprecise language about industry terminology on "income-eligible" versus "low-income" has unfortunately muddied clarity and caused confusion in the petition. However, it has been confirmed that "income-eligible" low-income people are truly not the target audience. This should be reflected in the Company's outreach plan - explicitly excluding 1-4 unit dwellings in Minneapolis Greenzones and all ACPs (all auto-qualified for LIW & LIRE geography designations). We also know from our work in this area that PAYS operators are firmly grounded in the fact that this program is not an income-eligible program, and have clear, longstanding protocols for collaboration with and referrals to CAP agencies and other local providers. This can and should be further discussed and collaboration mapped out once the program operator comes to the table.

Once with a PAYS model in place and the Company's outreach language clarified, we see the remaining fundamental issues about consumer protections to be 1) reining in utility costs where they are inappropriate, which is a routine part of any docket process involving utility proposals 2) ensuring efficacy of the dollars invested by ensuring the pilot is set up for success and future scale.

Recommendations for changes related to **CONSUMER PROTECTIONS**
• Direct Centerpoint to use the PAYS Tariff, User Agreements, and Essential Elements and engage a PAYS-qualified program operator as its next step in program design • Freeze disconnections for all pilot participants

- Clarify the language about who the pilot is targeting for outreach to be: all residential Centerpoint customers in service territory, but excluding 1-4 unit buildings inside the geographies auto-qualified for LIW & LIRE (e.g. Minneapolis Greenzones and ACPs).

UTILITY COST ESTIMATES

Cost is mentioned in many specific ways by many parties (OAG, Commerce, CEOs, CUB, SRA, ECC, EA, Cohort, CEE), and there are several of these points we shared in our initial comments and would like to emphasize here. All costs can be revisited and updated, too, once a qualified program operator is engaged. Any tool - even those that are critically important and demonstrably effective - can become gold-plated with exorbitant costs and utility profit-seeking. We share an ongoing frustration with the reality and norm to allow for-profit utilities to profit from life-or-death infrastructure at the profit margins and incentives currently allowed. This broader issue, unfortunately, cannot be solved in the scope of the docket about an efficiency program, but can and we hope will be taken up by the Commission at some point in the coming years. Current allowable profit norms are neither a reason to stop evaluating and cutting down those costs, including specifically for pilot programs like this one, nor is it a reason to prohibit the creation of accessible energy programs.

The two biggest factors driving the unnecessarily high total ratepayer cost range are the assumptions of 100% failure and the utility's proposal to earn a rate of return even while low-cost capital is available.

TOTAL RATEPAYER COST - Centerpoint's huge range for ratepayer costs ($5.6-$25.5 million) is certainly alarming. However, it becomes clear upon deeper investigation where the Company's inaccurate assumptions have ballooned the upper end of cost estimations, and can be lowered. First, when the 100% failure scenario is removed the price drops immediately to $5.6 - $8.1 million range. Uncollectibles (for any reason) in PAYS programs have averaged <0.1%,[2] so using a 100% savings failure estimate absurdly inflates perceived costs and may be dismissed, as explored further below in "Other Topics" (See Table 1).

Table 1: Dismissable 100% failure scenarios

Range of Ratepayer costs w/ 4.92% ROR, 4% defaults and 100% failure			**SOURCE:**	
	Spending Estimate	Spending Cap		
Total with 100% Unrealized Savings & Default Rate 4%	14,817,000	25,656,000	from Centerpoint initial filing (Exhibit L, p. 2)	

[2] PAYS Status Update, 2021 http://www.eeivt.com/wp-content/uploads/2021/12/2021-PAYS-Status-Update_12.30.21rev.pdf

From there, if the uncollectibles average is made to be a more plausible but still quite conservative estimate of 10x-40x higher than PAYS averages number (~1-4%), then we arrive at a range of ratepayer costs of between $5.4 - $8.2 million (See Table 2). Even while still including an ROR of 4.92%, this range is squarely within acceptable ratepayer costs for pilots based on other precedent. For example, Xcel's EV charging pilots came to $7.8 million in ratepayer costs and its Time of Use pilot came to a total cost of $11 million (~$8 million in capital, $2.9 million in O&M).[3]

Table 2: Ranges of Total Ratepayer Cost based on range of uncollectibles scenarios including 4.92% ROR

Range of Ratepayer costs w/ 4.92% ROR & and three uncollectibles scenarios			SOURCE:
Total with uncollectibles (0.1%)	5,299,500	7,521,000	spreadsheet calculation
Total with uncollectibles (1%)	5,367,000	7,656,000	spreadsheet calculation
Total with uncollectibles (4%)	5,637,000	8,196,000	from Centerpoint initial filing (Exhibit L, p. 2)

Finally, when we remove Centerpoint additional cost of capital 4.92% - which nearly all parties either question or directly oppose, we get a ratepayer cost for the pilot of: $3.15 - $3.76 million. Under this scenario, the utility is still collecting a 2.5% rate of return from all participants as well as the CIP incentives paid to the utility on all CIP funds leveraged by this program,The remaining minimal variation in range of costs is now how much investment is made (and therefore how much the total in defaults could be as a percentage of the higher capital investment amount). Centerpoint's original 100% failure "worst case scenario" there was a much greater variation in the range due to the utility ROR being assigned to *both* pilot delivery and all of $7.5 million or $15 million in uncollectibles.

Table 3: Ranges of Total Ratepayer Cost based on range of uncollectibles scenarios excluding additional ROR beyond that in participant cost and CIP incentive

Range of Ratepayer costs w/out ROR w/ defaults scenarios			SOURCE:
Total with default (0.1%)	3,085,500	3,093,000	spreadsheet calculation
Total with default (1%)	3,153,000	3,228,000	spreadsheet calculation
Total with defaults (4%)	3,423,000	3,768,000	from Centerpoint initial filing (Exhibit L, p. 2)

Therefore, the conservative worst case ratepayer cost we can evaluate and discuss for prudency is either $3.15 - $3.23 million (with no added ROR) or if we restore the 4% uncollectible to be even more conservative for a pilot it would be $3.42 - $3.76 million (with no added ROR). For a final table with our Assumptions/Inputs see Exhibit I.

Centerpoint also appears to be conflating or confusing uncollectibles and default rates as they claim in the petition's Exhibit L both a default rate of 4% as if it were uncollectibles (e.g. the entire amount is left unpaid not a portion of it) as well as the 100% scenario. It is quite unclear to

[3]Xcel's EV Pilots can be found in docket #18-643 and budgets on p. 36 & p.50. Each of the two pilots were $4.5 million and $3.3 million after subtracting the capital for the chargers that would be assumed would be paid back on-bill based on the pilot's design. If those were not repaid the total amount for both pilots would be $23.6 million. Xcel's Time of Use pilot can be found in Docket #17-775.

us how to evaluate their cited “default rate,” which is both higher than consumer loan default averages (~1.6%),[4] and what we imagine to be an even general lower utility bill default rate. This would be helpful to have clarified during a next program design phase with the implementer, but is not the key driver of ratepayer cost.

RATE OF RETURN - At the City’s requests, the Company has committed to seeking out 3rd party capital to replace its own. In the meantime, and particularly for the sake of a pilot run, we and other commenters have a variety of recommendations of what to do about the utility’s rate of return. The OAG notes at minimum that Centerpoint should be requesting a lower, more recently approved ROR (~6.86%).[5] We continue to recommend as do other commenters (CEOs, Energy Access, Cohort) either: exempting this pilot from Centerpoint’s Debt-To-Equity Ratio to remove what the Company claims is the barrier to using third party capital right now, or directing Centerpoint to use it’s lowest internal ROR (2.5-3.16%) split between participants and ratepayers, or borne by participants alone.

CIP INCENTIVES - As noted by OAG, Commerce, and CEE, existing CIP programs reward substantial incentives to the utility to do something largely counter to its business interests, even with decoupling. We fundamentally believe that if we are to truly treat efficiency as a least cost resource it must provide the same business proposition to utilities, which in some ways might be an argument for providing a reasonable ROR instead of the CIP incentive. Given the CIP financial structure is already in place, we believe aligning those incentives and preventing double dipping are in order. Rewards should be aligned with actual risk, and if third-party capital providers are ready to provide low-cost capital for this program with minimal rate of uncollectibles as the utility’s only exposure, only a very minimal amount of utility capital is at risk.Therefore, it seems reasonable that the CIP financial incentive would be awarded exclusively for public CIP funds leveraged, but not the remainder of the upgrade cost using pilot capital (e.g. the $7.5 - $15 million) except possibly for any amount of uncollectibles that is not covered by ratepayers. Separately, a low-cost of capital (2.5-3.16%) is appropriate to reward low-risk capital investments, which enable thousands more people to access CIP funds. That said, we encourage the Commission and other stakeholders to keep a watch throughout the pilot on any ways in which double-counting might occur.

START UP COSTS AND PROGRAM DELIVERY (CUB, ECC, CEE) - While the start up costs do diverge from what Centerpoint quoted to researchers in the 2019 Cadmus Study ($475,000 in Cadmus v. $1,756,500 in Petition), the annual pilot delivery cost does not diverge much at all and lies within a reasonable range of difference ($650,000 in Cadmus v. $674,833-$734,833 in Petition).[6]

---

[4] This is from the Federal Reserve’s consumer loan default averages for personal loans taken out at U.S.-chartered commercial banks. Residential real estate loan defaults are higher averaging 2.33%.
https://www.federalreserve.gov/releases/chargeoff/delallsa.htm

[5] OAG initial comments p. 8

[6] 2019 Cadmus p. 59 and Centerpoint Petition Exhibit L p. 5 Table 6. In the Centerpoint petition, evaluation are a standalone cost that add a one-time additional $127,000, but are not actual part of delivering the pilot itself.
http://energytransition.umn.edu/wp-content/uploads/2019/08/Minnesota-TOB-Financing-FINAL_AH-1.pdf.

Notably, there is no relevant comparison yet on the record looking at any individual CIP program's pilot start-up cost actuals, which we suspect would not be dissimilar. Of the start-up costs, $556,500 are created by the same utility ROR. Assuming start-up costs are to be recovered from rate-payers rapidly, they are effectively operational costs, and should not earn an ROR or at most be assigned the same 2.5%-3.15% ROR that the remainder of the capital should be assigned. For a pilot delivery cost comparison, we note that in 2021 Centerpoint's EZ-Pay on-bill loan program served only 21 participants while outlaying $114,324-$184,324, and if goals had been reached it would have spent $475,387 across 300 participants.[7] This latter budget goal, therefore, demonstrates that Centerpoint's annual pilot delivery costs for TOB are safely on par with acceptable annual program delivery cost ranges.

There are almost always opportunities to trim costs. We recommend that the Commission direct Centerpoint to engage a qualified PAYS program operator before fully evaluating both delivery and start-up numbers so that the Company can avoid start up and pilot delivery costs that would not actually be helpful to engage customers effectively based on field experience.

$100 UPFRONT CHARGE - (ECC, CEOs, CUB, Cohort, EA) From the beginning, this proposed charge broke from the norm among all other Pay-As-You-Save programs, and should not be allowed either at all or at the very least upfront. Many stakeholders - commenters and members of the public - on the record also question this charge as counter to the stated purpose of Centerpoint.

This upfront charge is problematic because it comes at the stage *before* any information is shared with prospective participants. It is a barrier to a basic understanding of options - this will replicate existing barriers facing non-income-eligible low and moderate income households. Further there is no precedent for this in PAYS programs. Without clearer justification, the entire cost also appears to be a duplication of services already covered by the program operator either through the $475 fee, leveraged CIP direct-install funds, or other program delivery costs. Centerpoint states in its response to ECC's Information Request #02 "This charge is the same as the customer co-pay for the Home Energy Squad services, [applied] in order to ensure parity between energy efficiency programs operating with the same services."[8] This statement is not persuasive as a reason why this cost is justified, but rather attempting to inflate costs to ensure the barriers to participation are comparable to a different program - the exact opposite of the pilot's intent. We are open to more detailed discussion about why this cost should be included - as long as it is not upfront - but a much more detailed or itemized outline labor and materials is needed.

$475 PROGRAM OPERATOR FEE - (CUB, ECC, CEE) There appears to be varying dimensions of confusion among stakeholders about what this charge accomplishes and when it is applied. This confusion reinforces our sense that there continues to be a general lack of

[7] On page 17 the total actual spending for 2021 was listed as $114k and on p. 21 it is listed as $184k Natural Gas Conservation Improvement Program 2021 Status Report, May 2nd 2022. Docket # 20-478,
[8] ECC Information Request #02

familiarity with the Pay-As-You-Save model, on which Centerpoint's proposal sought to be based, and which has been unhelped by the Company's perception that it must wait to solicit support from a qualified program operator until after Commission approval. This charge is a flat charge that covers the absolutely essential features of quality control mentioned in ours and others' Initial Comments and can be viewed at a high level in the below referenced presentation by the Southeast Energy Efficiency Alliance.[9] Several commenters expressed concern that this was an *upfront* cost. This cost is a flat charge regardless of the work installed because it is the quality assurance and modeling work that largely does not vary based on size of project. That said, it is *included* in the cost-effectiveness assessment to ensure that cost recovery charges meet the 80/20 rule including this program operator charge. This charge is also *never* assessed upfront and is not assessed to customers for whom cost-effective measures are not identified. Instead, it is assessed to participating customers as part of their cost-recovery charge. This was also reaffirmed during the Information Request stage.[10] We agree with Commerce's assessment that: "these costs as expenses, not capital expenditures on which a rate of return is warranted. We agree with the Department's recommendation that the program operation fee be excluded from the calculation of the utility's rate of return."[11]

COPAY (CUB, ECC, CEE) - Several commenters express concern about copays either generally or that they would be so prevalent or large as to prevent interest. Copays are not a requirement for participation at all, but are rather a secondary option to add measures that are not fully cost effective within the 80/20 buffer. Such measures are fully optional, and simply allow customers to choose to make a partial upfront payment for improvements that cannot be fully covered by the cost-recovery charge. This still adds value to customers, as the alternative is a customer paying for 100% of the cost upfront, or taking out personal debt (if they qualify) to do so. Field-tested PAYS programs have achieved ~63-100% acceptance rates with the exception of a limited duration program that had an adoption rate of 23%.[12] Across all of those, adoption rates for PAYS even *with* co-pays exceed the highest yes-rates of the market-rate CIP insulation and air sealing programs, which we understand in conversations with local implementers at their highest have been ~16-20%.[13]

PARTICIPATION RATES & ENSURING PILOT EFFICACY - A best practice in ensuring both prudent public spending and methodical research is ensuring that the resources needed to give good results, outcomes, and data are there. Several stakeholders note that an effective program with high participation will spread the one-time start up costs over many more projects. We share the observation that adequate participation is an important factor, and continue to believe that Centerpoint's estimates of 500-1500 participants over three years is both unrealistically small and therefore inflates cost. The Company likely underestimates opportunity because 1)

[9] "Options for program operator services in an inclusive financing program" p. 17, SEEA.

[10] ECC Information Request #02

[11] Department initial comments p. 10

[12] Pays Status Update 2021 http://www.eeivt.com/wp-content/uploads/2021/12/2021-PAYS-Status-Update_12.30.21rev.pdf

[13] Centerpoint staff stated the Company does not track acceptance rates as a practice, which would be a helpful dataset to begin collecting and published across all LI-CIP and CIP programs to better understand, evaluate, and support effectiveness.

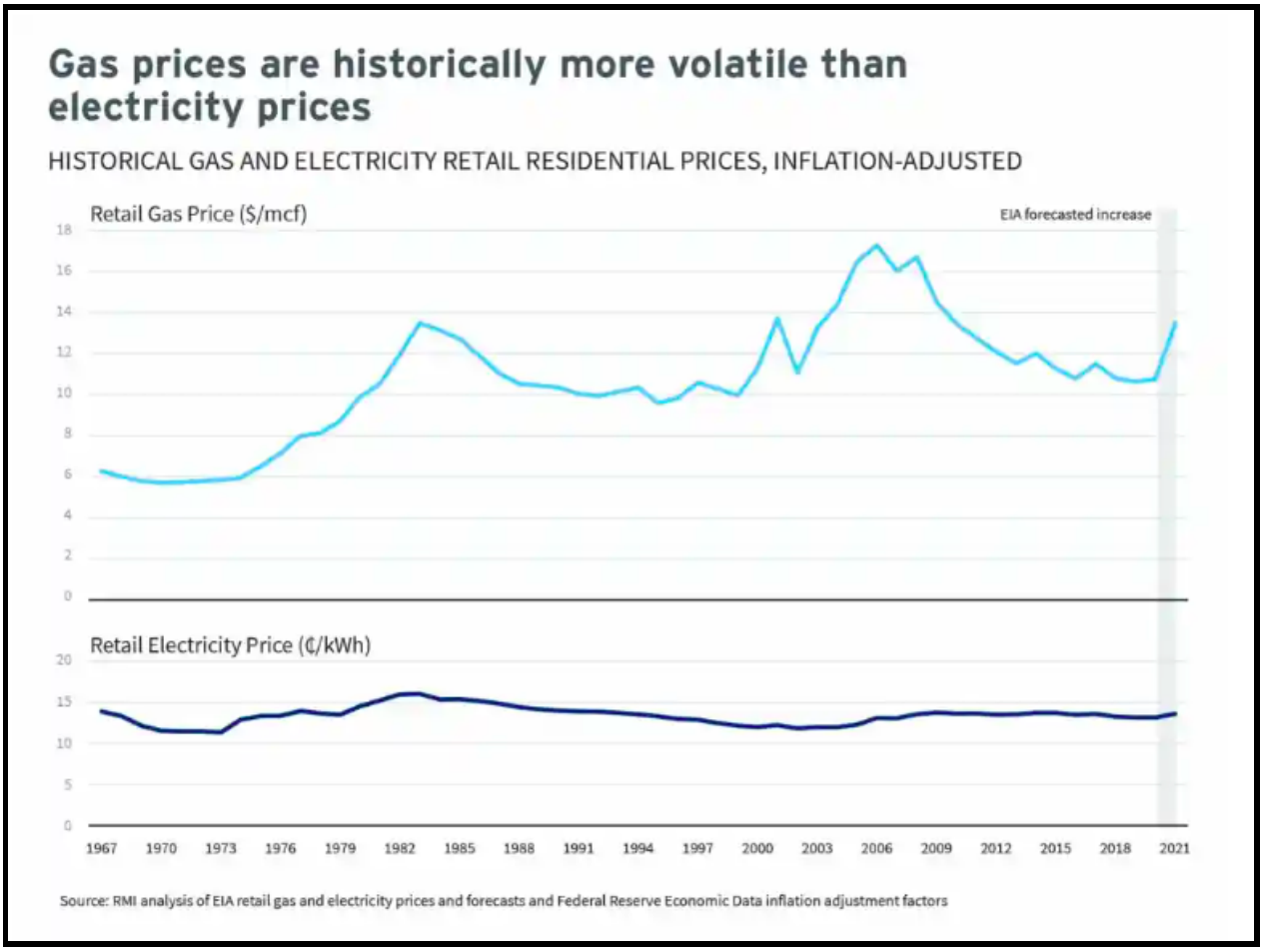
they have consistently underestimated interest in their insulation-specific rebate program even during COVID,[14] 2) the Company's participation goals for the TOB pilot mirror their loan-based program 3) In jurisdictions where PAYS operates, it regularly outperforms the loan acceptance rates, reflecting the fundamental difference in the customer offer between tariffs and loans. It is essential to plan for an ambitious level of interest for cost efficacy, for our climate and equity goals, and to create a good experience for prospective participants. SRA's recommendation to ensure geographical equity outside Minneapolis is a good one, and is somewhat in tension with how small of a pilot Centerpoint has created. We can envision 3-5 focused localized outreach campaigns across the service territory, but believe that is part of the work a program operator would design with community partners within the constraints of a pilot budget. After the "proof of concept" stage, a more widespread engagement strategy would be crucial.

GAS PRICE and fuel volatility deserve their own short discussion. From a resilience and energy burden standpoint, gas is and has been much more *volatile* in price than electricity, which is a risk borne entirely by ratepayers though the fuel charge each month as a pass through. The February storm spiked gas prices nationally, for which Minnesotans had no control over and Centerpoint and other regulated Minnesota gas utilities have sought full or near full-cost recovery. The geopolitical and economic instability in Ukraine is another set of events that are likewise outside of Minnesotans' control and yet have impacts on US and global cost of natural gas.[15] We are without a doubt heading for a future with more of both literal and figurative future storms, and Minnesotans are yet unprepared with accessible tools to lessen our collective consumption and exposure.

Graphic 2: Historic gas prices

[14] See Home Insulation Rebate summary in Natural Gas Conservation Improvement Program 2021 Status Report, May 2nd 2022. Docket # 20-478

[15] Clark Williams-Derry, energy analyst with the Institute for Energy Economics and Financial Analysis cites US exports of liquified natural gas as the primary reason for climbing prices. In 2016, the US completed its first LNG export terminal in decades, which the gas industry hoped would alleviate a glut of natural gas that was keeping US gas prices low https://www.cnn.com/2022/05/11/energy/ukraine-russia-gas-suspension/index.html



As gas prices rise, the deeper the household need for access to energy efficiency will be from a cost standpoint, and the deeper the cost-effectiveness of these measures. Measures were found to be feasible for Centerpoint in the Cadmus Study even under 2019 gas price scenarios ($6.94/Dtherm with a 4%/year escalator) and of course even more so the inflated gas cost scenario (~50% increase or $10.41/Dtherm). Now in 2022, current gas prices have surpassed the 2019 numbers and are already fast approaching - just 3 years later - that *inflated* gas price scenario of 50% used in the Cadmus study.

In order to ensure pilot efficacy, we continue to offer our recommendations on removing annual participation caps and early robust evaluation. We've also added three more recommendations on this topic: 1) the good framework offered by CUB evaluation metrics, which we have included with some modifications and additions in Exhibit II. 2) a somewhat pre-emptive recommendation about program outreach design to help address the larger energy industry problems in offering culturally-informed engagement 3) a recommendation to set up the LI-CIP programs to receive more funding in tandem with this pilot to ensure sufficient capacity to handle added volume from TOB referrals.

Recommendations for changes related to
COST AND EFFICACY:

- Exempt this pilot from CenterPoint's Debt-To-Equity Ratio requirement in order to enable the use of low-cost third party capital (3%) OR to use its own lowest internal cost of capital 2.5-3.16% without the additional rate of return (4.92%). Also direct the Company to report on the near term pathways it will pursue towards a long-term low cost of capital

- Explicitly disallow double counting of CIP incentives where CIP dollars are leveraged for TOB projects, awarding CIP incentives for the rebate amount and the TOB participant interest rate for the remainder

- Remove the $100 upfront audit charge as duplicative with the leveraged CIP funds and program operator fee

- Remove financing charges applied to the $475 program operator fee, and instead include this as an operations cost not a capital cost

- Use the $15 million budget for the pilot as the sole limitation on annual participation in the pilot rather than setting an artificial ceiling of a $5 million spending cap per year to reduce confusion and frustration with ebb/flow cycles for outreach workers, participants, and contractors

- Create a mid-point evaluation at 12-18 months with the option to expand and make permanent the program at that juncture if it is highly successful OR continue on with the pilot and make that decision after the full 3-years if more evaluation is needed. This evaluation should happen *concurrently* and not stop outreach and participation during evaluation.

- Direct Centerpoint to work with program operator to adopt and report evaluation metrics before program launches that including the metrics from Exhibit II

- Direct Centerpoint and/or identified PAYS program operator to engage in community focus-group sessions to develop a multi-lingual user-friendly quick-reference guide of the Participant and Successor Agreement that discusses benefits, responsibilities and who to call with questions or problems. Languages included can expand overtime, but should at minimum begin with Spanish, Hmong, Somali, Oromo, and Lao.

- Direct Centerpoint to calculate (alone or with support from relevant LI-CIP program operators):

- the total funding amount needed to serve 100% of households with at least insulation/air sealing in the auto-qualified jurisdictions (Minneapolis GreenZones, Areas of Concentrated Poverty in Centerpoint Service territory)[16]
- the total additional funding amount needed to resource pre-weatherization up to the 15% spending allowance for GreenZones and all Areas of Concentrated Poverty. This should conservatively assume that WAP can be leveraged but will not continue

DISCUSSION OF CIP AS ONE OF MANY TOOLS

In general, when evaluating the merits of approving a new/pilot program, it is important to compare opportunities to the conditions faced by the potential participant pool *in the absence* of the program (i.e. maintaining the status quo to the conditions). We find that the design and scale of CIP means that it is not an adequate replacement to address current realities of access and pace.

LI-CIP AND CIP PROGRAMS ARE NOT FREE - ECC notes "free" audit and "benefit of lower monthly bills without any financial obligation of any kind"[17] and while we agree with the spirit of that comment mainly for the income-eligible households they are concerned about, we respectfully disagree that they are free to income-eligible customers.[18] As we have stated before: all of us pay in regardless of eligibility, awareness, or access to programs.

CIP costs are baked into rates - everyone pays the exact same rate per therm except for the customers that are allowed to be CIP exempt as provided by statute - specific large commercial users. This includes those who participate in market-rate rebate or direct install programs, those who participate in "low-income" programs, and those who have never participated in anything. That means the more money we put towards it, the more it impacts rates. Unlike how we understand Gas Affordability Program charges to work, those who use low-income CIP are not

[16] To the best of our knowledge this includes 2 programs: Low-Income Weatherization (LIW), Low-Income Rental Efficiency (LIRE)

[17] Energy Cents Initial Comments p. 2

[18] We are also cautious about building a discussion or collective attitude towards households with low-incomes that they expect or only want to be recipients of "free" things. We have not only seen this framing lead to stripping of people's agency and choice, but also contributed to politicized perceptions that they are burdens, free-loaders, helpless. This perception also ends weakening political will for public infrastructure and these very assistance programs. This couldn't be further from the truth: "recent surveys have found that not only do the poor donate more per capita than individuals in higher income brackets, but that their generosity tends to remain higher during economic downturns." https://philanthropynewsdigest.org/news/poor-americans-are-country-s-most-charitable-demographic#:~:text=The%20latest%20survey%20of%20consumer,2.1%20percent%20of%20their%20income.

exempt from its charges. As of May of 2022, the cost per therm looks to be $0.03374:[19] (See Graphic 2 below for the inputs to calculate the most recently approved per therm CIP rate).

Graphic 3: Recently approved CIP per therm charge

Rate:

Base Charge Per Therm (CCRC)	Adjustment (CCRA)
$0.02469	$0.00~~791~~905

In all residential CIP (low-income and market-rate) programs, pooled public money is delivered via rebate or direct grant or direct installation. The *capital costs* for insulation/air-sealing are covered in one of two ways:

- Covered by 25-100% covered publicly-funded grants (leveraged WAP, LI-CIP for programs like LIW, LIRE, Low-Income Multi-Family). This is an entirely or mostly progressive wealth transfer from all energy users to income-eligible residents in single-family homes who are able to access the program, and their landlords.

- Paid out of pocket or via a loan by the property owners (EZ-Pay Loan, Home Insulation Rebates). Rebates are a mostly regressive wealth transfer for those who can pay out of pocket or access personal loans, and disqualifies renters from initiating or directly receiving the rebate.

In addition to this financial cost, there is an enormous time cost pass-through for prospective participants to navigate these programs. We know from experience that this time cost turns many away and dramatically reduces efficiency of effort for outreach workers and contractors. Opening up access to pooled resources by placing the burden of qualification on the draftiness of the home, not the individual's income/credit/status is a core part of deepened access for moderate income and non-income/geography-eligible households.

EXISTING PROGRAMS RELY EXCLUSIVELY ON INDIVIDUAL RISK OR PUBLIC GRANTS: Several commenters (ECC, CEE, Commerce) note confidence in the ability for LI-CIP and market-rate CIP offerings to meet either or both the needs of low and moderate income customers, particularly after the increase in spending goals from the EcoAct.

For income-eligible communities, we agree that the new geography-based designations will reduce barriers and generate more access for qualified households. However, we do not see how low-income will be universally served in this pathway alone or on a timeline that matters. The EcoAct expanded funding but not nearly as dramatically as it expanded eligibility and

[19] Centerpoint's CIP Triennial Compliance Filing & Status report May 2, 2022.

acceptable measures (e.g. limited pre-weatherization and electrification). One could interpret this as a strategic step towards scaling eligibility first in preparation for scaling funding to meet total participants second. Given that LI-CIP is funded by the per therm charge mentioned above we do not trust this as a realistic pathway. The pace of the last 40-50 years tells us that we are not pessimistic, but realistic. We are all unfortunately already on borrowed time.

For non-eligible households, these expansions would still not serve low-income households subject to standard income-testing. For both these households and moderate income households, the primary option remains upfront cash or personal-risk loans. We have addressed this issue of the missing middle in depth through our Initial Comments.

RESIDENTIAL CIP PROGRAMS ARE NOT SYSTEMATICALLY INSULATING HOMES - Insulation and air sealing appear to be one of the areas most lagging in market-rate CIP, and even LI-CIP. To demonstrate this for the market rate CIP program, we pulled from Centerpoint's 2021 Status Report.[20] Of the 268,973 "participants" in Centerpoint's 2021 CIP programs, ~72% were counted in the "Home Energy Reports," which is an information and energy tips focused program with limited savings impact.[21] Another ~7% (or 19,631) participants were for boilers, furnaces, and water heaters, which have the unique buoy of being present in every residential building and essential to replace when they break. Participation in the two low-cost, install-at-home programs (DIY Efficiency and School Kits) contributed another 5.5% and 4.2% respectively.[22] Only 0.75% (or 2,034, including 21 from the EZ-Pay program) of all market rate residential efficiency participants were for insulation/air sealing largely from the Home Insulation Rebate program. We understand anecdotally from program implementers that a typical conversion rates most recently for Xcel & Centerpoint have been in the 23-25% range and for a long time before that it was in the 16-20% range.

By comparison, PAYS is uniquely situated to, as the Cadmus Study mentions explicitly, move insulation and air sealing projects across the finish line for renters, homeowners, and property owners. . It can also meaningfully bundle measures together to lower the upfront barriers to HVAC and further boost participation in CIP. PAYS programs nationally have high acceptance rates making the cost-effectiveness of any scoping visit higher, and would allow CIP rebates to reach more people. Tariffed On Bill is a complement to CIP and LI-CIP - neither are replacements for one another.

DEEMED SAVINGS ARE USED IN CIP EXCLUSIVELY - The OAG sees TOB as a worthy concept but is miscategorized until it is under the umbrella of the CIP program. We disagree on this categorization primarily because CIP programs are obligated to use a deemed savings approach. This approach is not specific enough to the participating dwelling to assure the 80/20

---

[20] Natural Gas Conservation Improvement Program 2021 Status Report, May 2nd 2022. P. 20, Docket # 20-478,

[21] Participants are most often "measures" not individuals, households, or buildings though in several multi-family/non-profit programs buildings or units are designated as the "participant".

[22] The provision of DIY and School Kits is wonderful, and it should be that these programs do not confirm use let alone achieved savings in the home before counting savings towards utility CIP incentives, and together contributed to over $800,000 in ratepayer costs, or more than one year o

savings estimate required in the home-specific modeling conducted in all PAYS programs. Further, this program is designed to expand investment in energy efficiency by leveraging rebate dollars not competing for the limited funds the utility is required to spend each year on CIP.

> *"Deemed savings allow regulators and utilities to more easily measure and oversee energy efficiency programs but we need to be aware that using deemed savings trades accuracy and understanding the persistence of savings for ease"*[23] - Dian Grueneich, former CA utilities commissioner

CIP REACHED A PEAK ENERGY SAVINGS IN 2017. CIP reached a peak in energy savings and expenditures 2017.[24] This is confirmed by utility stakeholder interviews in the 2020-2029 Minnesota Energy Efficiency Potential Study found that it would be harder and harder to meet their CIP savings requirements, seeing the most challenge in the residential sector (See Graphic 1). These challenges and the peak don't at all mean that the program is no longer useful, nor does it mean it successfully reached all meaningful investments. Rather it suggests that the strategies prioritized so far have picked most of the low-hanging fruit available to them, and now the volume of those measures are on the decline *for the populations who have interacted so far with the program*. This means deeper investments for those who have received lower-cost measures, and both lower-cost measures and deeper investments may still be possible for people who have not been compelled to participate so far. Innovation beyond what we've tried is essential, and results will likely hinge on adequate resolution of barriers we have yet to address. Our reliance on highly complicated and/or personally risky income & immigration-testing and personal loans are core parts of that.

Minnesota has been counted as having some of the highest utility compensation for efficiency. Rewards must be aimed at supporting deeper retrofits for those who otherwise wouldn't be able to not simply low-cost measures or behavioral changes. We believe TOB allows not only access for participants to CIP funds they pay into, but also deepens CIPs ability to complete deeper retrofits because more people can plausibly participate.

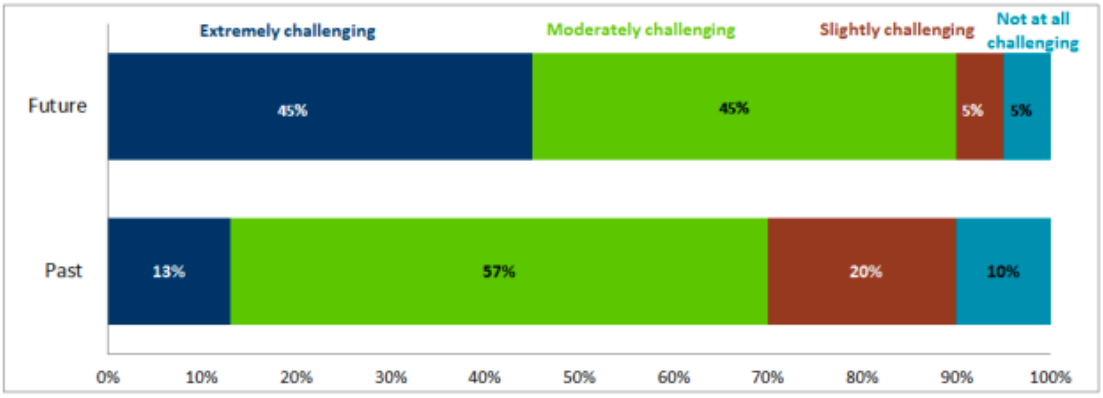
<u>Graphic 1:</u> MN Efficiency Study's stakeholder perceptions of how challenging it is to meet CIP savings requirements now and in the future

[23] "Fuzzy Math: Deemed Energy Savings Aren't Sufficient for Making Efficiency a Reliable Grid Resource" https://www.greentechmedia.com/articles/read/fuzzy-math-deeming-energy-savings

[24] Minnesota Energy Efficiency Potential Study: 2020–2029 https://mn.gov/commerce-stat/pdfs/mn-energy-efficiency-potential-study.pdf. P. 31

However, while stakeholders believe that it has been relatively easy to meet the state goals in recent years, most believe that it will become harder in the coming years (Figure 11).

Figure 11. Stakeholder perceptions of how challenging it is to meet CIP savings requirements now and in the future.



Stakeholders also report that they are most challenged with reaching residential customers – and in particular low-income residential customers (Figure 12).

WORKFORCE AND EFFECTIVE ENGAGEMENT ARE CRITICAL - BUT ALONE WILL NOT SOLVE EXISTING PROGRAMS' ACCESS ISSUES. We do not believe the record shows that redoubling CIP efforts alone by addressing workforce and outreach efforts will resolve the access barriers caused by design features. We absolutely must increase trust-based engagement, culturally and linguistically specific information-sharing, and boost pathways for Minnesotans to get jobs in energy efficiency. The lack of sufficient workforce or incoherent/confusing marketing will sabotage even the best program. However, those two elements can never fully address why people can't move forward with a program if the program itself doesn't meet people's economic and time-burden realities. Therefore, these issues must be worked on in tandem while exploring additions like TOB rather than attempting to solve them before attempting a TOB pilot.

DISCUSSION OF OTHER TOPICS THAT CAN BE SET ASIDE AS MISINFORMED / IRRELEVANT

SCENARIOS OF 100% FAILURE, AND SCENARIOS UNREASONABLY DISTANT FROM FIELD-TESTING AND CADMUS STUDY - While these are interesting catastrophic thought experiments offered by the Company and discussed by many stakeholders, the legitimate sticker shock concern of $5.6 - $23.9 million can be dismissed once we unpack the assumptions baked in. Judgment of risk by scenarios of 100% unrealized savings or large-scale default rates (~4%) that are many times greater than both the utility's typical rate of default than any field-testing are unhelpful to guide policy priorities for several reasons:

This discussion does, however, re-emphasize why it is essential to use a PAYS program following what has been field-tested, has had a Minnesota-specific study, and holds important consumer protections (including the length-of-charges warranty for work, repeated billing analysis, and other evaluation, monitoring, and verification work that comes along with the $475 program operator charge).

1. These two scenarios are unprecedented calculations of risk not applied to any other utility investment nor proven technology. PAYS measures are only using proven technologies like insulation, air sealing, furnaces, boilers, etc. not experimental technologies with wholly unfamiliar results. A hypothesis of this scale of massive equipment failure is never applied when considering the risks in other technologically-familiar energy infrastructure such as power plants, gas pipelines or smaller equipment like EV chargers.

2. Instances of failure of modeling, equipment, and installation failure are not charged to ratepayers, but have clear procedures for accountability. In the uncommon events where *measures* fail contractors and equipment warranties are on the hook for repair and replacement, which is orchestrated by the program operator via the flat $475 fee for monitoring and verification; and where *modeling* fails the program operator is on the hook for program charges.[25] By comparison, for CIP efficiency program costs, ratepayers are *not* held harmless from CIP cost-recovery nor the 10-30% utility incentives paid on them in instances where there is equipment failure for the participant and savings do not materialize. In large part, this is because the failure or success is usually not confirmed post-installation under CIP. Energy savings and cost-effectiveness are based on deemed energy savings - which are engineering studies conducted in lab settings not the specific home itself and are therefore subject to more significant error.[26][27] In some cases, even whether the measure/behavior was actually implemented is fully unknown (e.g. Home Energy Reports' to support behavioral and future action, DIY efficiency kits mailed to customers, School Kits distributed via educational partners).

3. The field-tested experience for PAYS places "charge-off" rates or "uncollectibles" resulting from people not paying their charges for *any reason* as ~0.1%,[28] so one could fairly assume that the uncollectibles to plan for in a well-functioning program are just this. For a pilot program, a reasonable outer end of a worst case scenario could be even 10x the average of permanent programs to be conservative, which land at 1%. This is still

[25] Anecdotally, in conversations with program operators, we also learned there have not been reported instances in existing PAYS programs of rate-basing charges due to inexplicable sources of failure, nor refusal of contractor or program operators to offer redress for errors made by those parties.
[26] "Deemed savings is not a measurement and verification (M&V) method, and that it should not be relied upon to reflect an energy efficiency (EE) project's achieved savings."
https://evo-world.org/en/news-media/m-v-focus/868-m-v-focus-issue-5/1154-evo-deemed-savings-statement
[27] "Deemed savings values rely on multiple assumptions and can vary widely from the actual measured savings. [...] A recent study stated that "static efficiency assumptions are inherently imprecise."
https://www.greentechmedia.com/articles/read/fuzzy-math-deeming-energy-savings
[28] http://www.eeivt.com/wp-content/uploads/2021/12/2021-PAYS-Status-Update_12.30.21rev.pdf

1.5x times less than consumer loans, which clock in at ~1.65-2% default rate.[29] We have used a 40x higher rate in the "Discussion of Key Issues → Utility Cost Estimates" section to calculate ratepayer costs. Centerpoint's assumption of an *additional* default rate of 4% as if it were uncollectibles on its own is already exceedingly conservative, and adding the 100% failure rate on top of that is a false guide to effective policy and program planning. The 4% default rate the Company sites as "based on the current default rate,"[30] which without further description must refer to either the Company's uncollectibles for all customers or its uncollectibles for some unnamed program.

LEGAL AUTHORITY (OAG, Legal Aid, Commerce, MinnRealtors) - This issue straddles the line of relevance. While it is certainly important to determine Commission authority, that is something the Commission can determine on its own. We understand this program and issue as squarely within the Commission's jurisdiction and most if not all of the arguments raised by several parties can largely be dismissed. We cannot offer a professional legal interpretation in our Reply Comments, we still offer brief analysis. Our own reading of state law and consultations with lawyers practicing in Minnesota, national tariff precedent, and the proceedings in docket 19-524 including the findings of the ALJ all reaffirm this.[31] PAYS and Tariffed-On-Bill is a tariff not a customer loan, and tariffs are under clear authority of the Commission. We have reattached for the record a legal memo we received that outlines this clearly.

The arguments center around a three different premises bulleted out and discussed here:

- Definitions of utility rates/services - these arguments are a too narrow interpretation of what the Legislature had mandated, which is *systematic and aggressive* pursuit of efficiency. State law provides for multiple avenues, and specifically states this pursuit of energy savings is: [underlines, bold added for emphasis and brackets for annotation]

> *"including but limited to:*
>
> *1) cost-effective energy conservation improvement programs and efficient fuel-switching utility programs under sections 216B.2402 to 216B.241;* **[e.g. CIP]**
>
> ***2) rate design;***
>
> *3) energy efficiency achieved by energy consumers without direct utility involvement;*
>
> *4) advancements in statewide energy codes and cost-effective appliance and equipment standards;*

[29] This is from the Federal Reserve's consumer loan default averages for personal loans taken out at U.S.-chartered commercial banks. Residential real estate loan defaults are higher averaging 2.33%.
https://www.federalreserve.gov/releases/chargeoff/delallsa.htm
[30] Centerpoint Initial Filing, Exhibit L, p. 1
[31] Docket #19-524

5) programs designed to transform the market or change consumer behavior;

6) energy savings resulting from efficiency improvements to the utility infrastructure and system; and

7) other efforts to promote energy efficiency and energy conservation.[32]

We find that TOB easily fits within the wide and diverse mandate offered by the Legislature on efficiency, in particular in the bold/underlined pieces of this state law.

- Precedents about utility debt from the 1970s and 80s - these arguments are not germane because, again, Tariffed On-Bill does not involve consumer debt. Further, the utility bill costs in the precedents are incurred through *consumption* of utilities, which a future occupant wouldn't have been present for nor could benefit from in the future. Tariffed On-Bill cost recovery charges are only assessed to the current user and beneficiary.

- Arguments about jurisdiction / areas of overlap - these arguments are based on the idea that Tariffed-On-Bill is or would be treated as a loan. It is neither. The U.S. Department of Energy's Issue Brief on tariffed on-bill programs specifically states that: "The on-bill tariff model differs from on-bill loans and repayment models in that tariffs are not a loan, but rather a utility expenditure for which cost recovery is tied to the utility meter according to terms set forth in a utility tariff."[33] For all PAYS programs, which represent the overwhelming majority of current TOB programs are examples of utility investment, do not involve the core features associated with loans, and have not been considered or treated as falling under Truth In Lending laws or other forms of banking regulation. They do not involve personal debt, loans, liens or contracts between the utility and the participant, only execution of a participant agreement to the tariff terms.

PARTICIPANT SAVINGS - (Legal Aid, SRA, CUB, Commerce) - Legal Aid and others raises a concern about assurance of savings, which is a really important topic and is essential to make sure everyone is on the same page before setting it aside.

Legal Aid reframes the argument as if there are generally no savings:

> *"Assurance of Savings," the proposed tariff calls the annual audit to determine if there are any savings. In point of fact there is no assurance or guarantee of savings [...]"*[34]

[32] Minn. statute 216B.2401; 216B.241

[33] US Department of Energy. "Issue Brief: Low-income Energy Efficiency Financing through On-Bill Tariff Programs" https://betterbuildingssolutioncenter.energy.gov/sites/default/files/IB%20L-I%20EE%20Financing%20through%20On-Bill%20Tariffs_Final_0.pdf

[34] Legal Aid initial comments, p. 17

The actual language in the petition, and in TOB programs makes clear that the follow up audit is an accountability mechanism to *confirm* that the savings were achieved, and also to lay out the process to explore and make right any instances where that is *not* the case:

> *"CenterPoint Energy's TOB program operator will conduct at least one billing audit between one and two years after installation of the Upgrades to confirm that the Upgrades are resulting in at least 80% of the estimated savings, on a weather-normalized basis. A Customer at the location and/or the property owner may request additional billing audits."*[35]

This 80/20 buffer already is much more robust than anything required of any other efficiency program for which a person pays upfront or takes out a personal obligation: customers who do not pass the 80/20 rule cannot be enrolled for cost recovery charges without a copay that gets them to the 80/20 buffer. As noted above, in "Other Topics -> Scenario of 100% Failure" the home specific modeling required is also more specific to the deemed savings approach, which offers only general estimates for planning purposes not for evaluation of actual savings. Said another way, this proposal includes more accountability, warranties, and evaluation built in than in many other existing energy upgrade transactions that are far riskier personally to the occupant. In the case of Centerpoint's EZ Pay program, they face higher carrying costs with fewer protections - 5.25% v. 2.5%.[36]

Legal Aid further states incorrectly that there are "no provisions to make participants whole when savings fail to materialize."[37] In fact, those instances are under clear obligation by the program operator and contractor in all instances outside those behavioral ones that the 80/20 buffer is designed to cover (e.g. turn up the heat from 68 to 72; run a business out of their home; add an appliance or person to their household). If the modeling based on home-specific assessment and passed utility bills proves to have been in error, the program operator is liable for charges. If the upgrades are not working, the tariff includes a provision on repair in which the contractor is liable for correction:

> *"If CenterPoint Energy's program operator determines that the estimated energy savings are not being realized due to a malfunction of the Upgrades, the program operator will arrange for repair of the Upgrades or CenterPoint Energy shall suspend future Service Charges or take other appropriate action. If CenterPoint Energy's program operator is unable to determine why the estimated energy savings are not being realized, CenterPoint Energy shall suspend future Service Charges or take other appropriate action."*[38]

---

[35] Centerpoint initial filing, Exhibit D p. 49

[36] Cited in the Department's initial comments as the interest rate in the EZ-Pay program identified through conversations with loan vendor CEE, p. 9

[37] Legal Aid initial comments, p. 17

[38] Centerpoint initial filing, Exhibit D p. 49

Relatedly, OAG seems to have added in a ratepayer cost in confirmation of savings that - from our understanding - is incorrect as well that is worth mentioning. OAG quotes the petition language but changes “program operator” to read “Centerpoint” and also adds “at ratepayer expense” where it was not included in the petition. The underlined text reflects OAG changes and the language in brackets is the language from the petition:

> “if Centerpoint [the program operator] determines that savings didn’t materialize due to a malfunction of measures installed, it [the program operator] would arrange to have the equipment repaired. at ratepayers’ expense”[39]

We did not find any evidence that this would be at ratepayer expense, and in every stakeholder conversation with PAYS experts and program operators this cost is borne by the warranty (equipment), the contractor (installation error), or the program operator (modeling failure). This quality assurance coordination work is covered in the $475 program operator fee.

MULTIPLE FOOTNOTES AND CITATIONS REFERENCED BY LEGAL AID - We found it shocking to see the studies cited by Legal Aid, which when reviewed appear to be a hasty review of energy financing literature with forced, inaccurate conclusions. Of the 11 footnotes referencing 9 studies cited as about Tariffed-On-Bill, 10 were referencing loan products (much like the EZ Pay Program Centerpoint recently adopted), and only one was actually a direct reference to either Tariffed On-Bill programs, and specifically Pay-As-You-Save.

Due to the volume of these citations that are not germane to the record, we have included as an appendix (see Exhibit III) a list of the 10 footnotes along with a brief discussion of the cited study’s actual topic for the record. We do wish to pull out and respond to the only reference that uses data from a Tariffed On-Bill program, and Pay-As-You-Save specifically. This citation has identified the correct mechanism (PAYS/TOB) but misquotes the study and so draws an inaccurate conclusion.

Legal Aid’s reference and conclusion state on page 18 and footnote 58:

> *“An outside evaluation of the Ouachita program, retained by the very same administrator, revealed that 17% of participants failed to realize the promised savings.*[58]
>
> [58] *Optimiser LLC, Ouachita HELP PAYS Residential Energy Efficiency Program Evaluation (February 2018), at 4; at https://mplscleanenergypartnership.org/wp-content/uploads/2018/04/Ouachita_PAYS_Report.pdf)”*

We could not locate any 17% figure directly on page 4 as the citation suggests, but we did find three 17% figures on page 11-12. If this is indeed the referenced figure, put back in its context it

[39] Original quote from Centerpoint Initial Filing Docket #21-377 (p. 19) and inserted phrase from OAG initial comments p. 7 (p. 7)

does not convey the meaning Legal Aid derived about percentage failing to achieve savings, but rather confirms that the homes referenced saw a 17% savings.

Here is the figure in context:

> *"Table 3 shows that the 16 homes with the lowest usages, less than 10,000 kWh per year, saved on average the least: 1,214 kWh, which represented a 17% savings. With one exception, the group of homes with the largest pre-improvement usage, 30,000-35,000 kWh, saved the most, an average of 10,411 kWh per year.*[40]

The series of references (outlined in Exhibit III) and this misquotation of PAYS data reinforces our persistent concern that some of the stakeholders who have the most reservations about the tool itself - even those who were a part of the 2019 Cadmus study like Legal Aid - have still not familiarized themselves with the mechanism itself, the literature about PAYS / Tariffed-On-Bill, nor the data on outcomes. We have seen threads of alarm about PAYS that are not actually rooted in analysis of the data of what programs have achieved or how they work in practice, and we wonder to what degree this alarm it is rooted in - very legitimately - past experience of badly structured lien-based programs like PACE. The industry jargon unhelpfully offers similar sounding acronyms, which may further confuse programs and data (PAYS/PACE/OBR /TOB/OBL/OBF) as well as terms like "income-eligible" that can become conflated with the broader term "low-income," which then is stuck conveying both broad meaning and program-specific or government-defined meaning. We also respect very much that there are a litany of issues to engage in and that many stakeholders reasonably do not have the capacity to deeply understand each issue.

But, PAYS is decidedly not those other programs - it is not PACE. It is not an On-Bill-Loan. It has incredibly different data, results, cost-effectiveness modeling, quality-assurance, history, and perhaps most importantly it has higher participation, consistently verified savings rates, and no reports of disconnections. Minnesotans paying into but excluded from existing programs - and Minnesotans who have spoken up in these proceedings about this wide gap in access - deserve our collective attention and specificity. This is critically important for all stakeholders to understand in order to be actually having the same discussion. It also redoubles the need to be using the field-tested version of Tariffed On-Bill: Pay-As-You-Save, to ensure Minnesota benefits from those best practices.

OUR FULL RECOMMENDATIONS

These recommendations reflect our original Initial Comments with updates and additions to capture our analysis on the discussion on the record so far.

[40] https://mplscleanenergypartnership.org/wp-content/uploads/2018/04/Ouachita_PAYS_Report.pdf, p. 11-12

Approve Centerpoint's petition with the following modifications:

- Direct Centerpoint to use the PAYS Tariff, User Agreements, and Essential Elements and engage a PAYS-qualified program operator as its next step in program design
- Freeze disconnections for all pilot participants
- Clarify the language about who the pilot is targeting for outreach to be: all residential Centerpoint customers in service territory, but excluding 1-4 unit buildings inside the geographies auto-qualified for LIW & LIRE (e.g. Minneapolis Greenzones and ACPs).
- Exempt this pilot from CenterPoint's Debt-To-Equity Ratio requirement in order to enable the use of low-cost third party capital (3%) OR to use its own lowest internal cost of capital 2.5-3.16% without the additional rate of return (4.92%). Also direct the Company to report on the near term pathways it will pursue towards a long-term low cost of capital
- Explicitly disallow double counting of CIP incentives where CIP dollars are leveraged for TOB projects, awarding CIP incentives for the rebate amount and the TOB participant interest rate for the remainder
- Remove the $100 upfront charge as duplicative with the program operator fee
- Remove the financing charges on the per participant $475 program operator charge
- Use the $15 million budget for the pilot as the sole limitation on annual participation in the pilot rather than setting an artificial ceiling of a $5 million spending cap per year to reduce confusion and frustration with ebb/flow cycles for outreach workers, participants, and contractors
- Create a mid-point evaluation at 12-18 months with the option to expand and make permanent the program at that juncture if it is highly successful OR continue on with the pilot and make that decision after the full 3-years if more evaluation is needed. This evaluation should happen *concurrently* and not stop outreach and participation during evaluation.
- Direct Centerpoint to work with program operator to adopt and report evaluation metrics before program launches that include all metrics in Exhibit II.
- Direct Centerpoint and/or identified PAYS program operator to engage in community focus-group sessions to develop a multi-lingual user-friendly quick-reference guide of the Participant and Successor Agreement that discusses benefits, responsibilities and who to call with questions or problems. Languages included can expand overtime, but should at minimum begin with Spanish, Hmong, Somali, Oromo, and Lao.

- Direct Centerpoint to calculate (alone or with support from relevant LI-CIP program operators):
    - the total funding amount needed to serve 100% of households with at least insulation/air sealing in the auto-qualified jurisdictions (Minneapolis GreenZones, Areas of Concentrated Poverty in Centerpoint Service territory)[41]
    - the total additional funding amount needed to resource pre-weatherization up to the 15% spending allowance for GreenZones and all Areas of Concentrated Poverty. This should conservatively assume that WAP can be leveraged but will not continue

CONCLUSION

We are missing an untenable number of ratepayers who all pay into existing programs and cannot access or choose not to use them both because of *how* we tell people about the programs and the complexity to access them and because of how they are *designed*. We have the tools of grants and loans - all complex and individually navigated. The income-based grants (LI-CIP and WAP) we believe - as do many other stakeholders - must be more deeply funded, and significantly less burdensome in qualifications. Our non-income-eligible tools are incomplete - they have not been made universally accessible and therefore they will not be scalable, meet demand, nor happen on a time frame that matters.

Therefore, we ask that the Commission adopt our original recommendations and some additional recommendations (as outlined above) in order to:

1. Match program to field-tested, consumer protected PAYS program
2. Rein in utility costs that are inappropriate
3. Fully fund existing programs so that they can succeed in both meeting the need and raising awareness in a culturally informed and resonant way

We can and should be incredibly proud of what has been accomplished here in Minnesota. We have made good progress in the last 40 years since we first learned aligned around the shock of the need to act. Technology has improved, programs have expanded, and our understanding of the depth of the problem has grown.

[41] To the best of our knowledge this includes 2 programs: Low-Income Weatherization (LIW), Low-Income Rental Efficiency (LIRE)

Yet there are many who have been excluded from that success. Despite the hundreds of millions of dollars invested a substantial portion of households still remain without even insulation, and a substantial portion have no reasonable tools to fix that even the landlords and property owners. Our laws defining what is reasonable energy efficient household have not changed this.

We must be honest and clear-eyed that there is more we can and must do. We cannot pass up the opportunities to learn from our peers about what we haven't yet tried and are not experts about. Minnesota's view is based on its own history of what we have tried and invested and who has been at the table - that is not the same as what is possible or necessary: "Humility is the surest sign of strength."[42]

The decades of field testing is done, our feasibility study is done. Our lists of fears from past experience, cautions, are out on the table to evaluate. What is left now is to try diligently, with intention, to put study into practice. Inaction (or continued action without attention to the failure of existing options to serve everyone equitably) is something none of us can afford least of all communities at the frontlines of the energy system and climate change: "There are risks and costs to action. But they are far less than the long range risks of comfortable inaction."[43]

We look to your commitment and integrity as public servants to address these issues without bias or preferential treatment, to seek the testimony of the public and community organizations as well as industry professionals; unfamiliar faces as well as longtime colleagues; specific expertise from Minnesota and expertise from peer communities; stakeholders who have been excluded from existing systems and stakeholders who have worked inside them. Most of all we look for your commitment to act, to do so in light of who has been excluded using current tools and the mechanics of *why*.

Thank you very much for your continued consideration,

/s/ Alice Madden

alice@communitypowermn.org
On behalf of Community Power

[42] Thomas Merton
[43] John F. Kennedy

APPENDIX

EXHIBIT I:

INPUTS & ASSUMPTIONS FOR TABLE #1-3

	Spending Estimate	Spending Cap	SOURCE:
100% of capital	7,500,000	15,000,000	from Centerpoint initial filing (Exhibit L, p. 1)
4% of capital	300,000	600,000	spreadsheet calculation
1% of capital	75,000	150,000	spreadsheet calculation
0.1% of capital	7,500	15,000	spreadsheet calculation
Start Up Activities	1,756,500	1,756,500	from Centerpoint initial filing (Exhibit L, p. 2)
Pilot Delivery	1,321,500	1,321,500	from Centerpoint initial filing (Exhibit L, p. 2)
Utility Rate of Return	2,214,000	4,428,000	from Centerpoint initial filing (Exhibit L, p. 2)
Total Ratepayer Cost with ROR	5,292,000	7,506,000	spreadsheet calculation
Total Ratepayer Cost w/out ROR	3,078,000	3,078,000	spreadsheet calculation

EXHIBIT II:

METRICS TO INCLUDE IN PROGRAM EVALUATION

- The number of participants who would have had service disconnected if not for the pilot's disconnection freeze, AND the number of those participants above the Company's average rate of disconnection for nonpayment to evaluate what is could or could not statistically be attributed to the pilot
- # of dwellings upgraded made by 9-digit zip-code and/or census tract, and average upgrade investment per dwelling
- # of upgrades made by measure including direct install measures (e.g. wall insulation, LEDs, air sealing, attic insulation, HVAC, etc)
- # of prospective participants that 1) were referred to another program before or after receiving a TOB assessment based on income eligibility for another program 2) were put on waitlist due to deferred maintenance 2) received an assessment 2) signed up for TOB without a copy 3) signed up for TOB with a copay 4) declined to participate with reason cited if offered and/or didn't respond 5) are on a waitlist due to oversubscription of funds
- In tracking # of applicants referred to LI-CIP or WAP programs, include two types of referrals 1) anyone receiving referral who chose to accept referral and not continue in the TOB Pilot 2) anyone who explicitly states they are likely qualified but do not chose to participate in LI-specific programs due to waitlist times. Count those as "referred" to ensure that they are counted among the demand for those programs.
- Average duration of time for prospective participants on waitlist due to backlog of interest and/or oversubscribed funds and date at which backlog/oversubscription began
- Total range of copays offered; total range of copays accepted; median copay offered and/or accepted
- The number of participating customers whose bills experienced changes in their bills post-upgrade separated into the following categories:
    - Reduced by 25%
    - Reduced by 15-25%
    - Reduced 5-15%
    - Bill neutral to reduced by 5%
    - Increased by up to 5%
    - Increased by 5-15%
    - Increased by 15-25%
    - Increased over 25%
- Narrative explanation of information shared and methods by which tenants and separately property owners were educated about the benefits and responsibilities of participation
- Narrative explanation of how pilot went from program operator and any outreach

partners who wish to comment

- Any feedback from participants - positive, negative/constructive - offered to outreach partners, program operators, or utility throughout
- Marketing and engagement spending by entity to evaluate methods of information spreading:
    - Utility marketing (materials, ads, labor etc.) if any
    - Program operator (materials, ads, labor, etc) if any
    - Community-based outreach (materials, labor, etc) if any

EXHIBIT III:

STUDIES CITED BY LEGAL AID THAT ARE NOT ABOUT TARIFFED ON BILL NOR PAY-AS-YOU-SAVE

Page 14, footnote #33:

> *"As one study concluded, it is "unlikely the frequently-moving population would enjoy long-term benefits from the [TOB] investment."*[33]

[33] Leah Burcat and Meg Power, *On-Bill Repayment for Home Energy Efficiency: The Benefits and the Risks, Economic Opportunity Studies*, (February 2013) https://communityactionpartnership.com/wp-content/uploads/2018/11/On-Bill-Repayment-for-Home-Energy-Efficiency-Benefits-and-Risks.pdf)

The quote cited from the study improperly injects with parentheses the acronym "[TOB]" to attribute the study findings to TOB that were actually made based on observations of non-TOB programs - on-bill repayment (OBR) of personal loans made by a non-utility entity, much like Centerpoint's EZ Pay loan programs.

This study analyzes risks to consumers of personal debts incurred in programs for on-bill repayment of loans. "OBF" was the term used in the study as an umbrella to describe any program with a charge on the utility bill for site specific upgrades paid with money borrowed from a third party, which is more specifically called "on-bill repayment" or "OBR", which is the topic of the paper. At the time in 2013, programs that what were later termed "On-Bill Tariff" or "Tariffed On-Bill" and now "Inclusive Financing" were not yet detected or reported by either DOE or ACEEE, both of whom initially categorized "tariffed on-bill programs" as a type of on-bill financing before recognizing and defining tariffed on-bill programs as distinct around 2016. Notably, there is no data in the paper directly relating to the OBR (loan) programs' performance, but rather speculation as to possible impacts based on data about characteristics of potentially impacted low-income populations. The speculation is well-placed identifying one of the hazards of a loan-based program (beyond the barrier of credit-testing, and stacking of personal debt) is the requirement to pay in a lump sum (for comfort/financial benefits that won't be received) before being allowed to move out and/or sell the property. Because personal debts must be fully paid by the borrower at the time of departure from a location, if the customer does not reside at the location until debt repayment is completed in such an on-bill debt repayment program, early departure creates a financial imposition of burden without benefit.

Tariffed on-bill programs are different, and CPE has proposed a tariff in which customers only participate in cost recovery while they are receiving the benefits of the energy upgrades and face no further obligation to pay when they close their account at the upgraded location.
The U.S. Department of Energy's Issue Brief on tariffed on-bill programs specifically states that:

> "The on-bill tariff model differs from on-bill loans and repayment models in that tariffs are not a loan, but rather a utility expenditure for which cost recovery is tied to the utility meter according to terms set forth in a utility tariff."[44]

For all PAYS programs - which represent the overwhelming majority of current TOB programs - are examples of utility investment and do not involve the core features associated with loans (means-testing, personal attachment, etc.), and have not been considered nor treated as falling under Truth In Lending laws or other forms of banking regulation. They do not involve personal debt, loans, liens or contracts between the utility and the participant but rather an execution of a participant agreement to the tariff terms.

Lastly, this study is about the impacts on income-eligible households. All customers - as noted in the petition - will be notified of the availability of other publicly funded income-eligible direct installation programs such as WAP and LI-CIP. This imprecision is noted in our comments and recommendations and it can and should be clarified/corrected. The program proposed by Centerpoint is not designed to serve income-qualified low-income customers, though this intention is muddied by the Company's imprecise language and confusing targeting given recent program expansions. We wholeheartedly agree, and have recommended above, that this be explicitly clarified and outreach plans reflect that as well.

Page 15, footnote #40:

> "lenders are likely to treat [TOB] as an obligation to be cleared before a property is transferred rather than a routine utility bill for electricity or gas service."[40]
>
> [40] The State and Local Energy Efficiency Action Network, *Financing Energy Improvements on Utility Bills: Market Updates and Key Program Design Considerations for Policymakers and Administrators* (May 2014), at 26; at https://www4.eere.energy.gov/seeaction/system/files/documents/onbill_financing.pdf.)

The referenced study prepared by Lawrence Berkeley National Laboratory for DOE does assess and describe TOB programs as well as loan programs.

This quote, however, is taken out of context, and again Legal Aid improperly injects a parenthesis reference to "[TOB]" into the cited passage that is attributed in the report to a memo from the Natural Resources Defense Council that is specifically about *personal debt obligations* paid to lenders on a utility bill through OBR/OBL programs, like Centerpoint's EZ Pay program. While the statement by the national lab study about OBR/OBL loan programs is correct, the edit by Legal Aid to change its meaning to refer instead to "[TOB]" programs is not correct. Tariffed on-bill programs do not involve personal debt obligations as in OBR/OBL programs. NRDC and the national lab correctly state that in OBR/OBL those obligations must be resolved at the time of sale.

[44]US Department of Energy. "Issue Brief: Low-income Energy Efficiency Financing through On-Bill Tariff Programs" https://betterbuildingssolutioncenter.energy.gov/sites/default/files/IB%20L-I%20EE%20Financing%20through%20On-Bill%20Tariffs_Final_0.pdf

For full context, the excerpt of the sentence in the national lab report attributes to NRDC this argument about treatment of personal debts to mortgage lenders for home upgrades:

> *"In fact, it has been argued that in transactions financed by a conventional residential mortgage, lenders are likely to treat outstanding on-bill obligations as an obligation to be cleared before a property is transferred rather than a routine utility bill for electricity or gas service (Henderson 2013)."*

This paper does contain data on PAYS programs, and the section referenced is discussing the possibility of TOB as a "game changer" for reasons that include the automatic application of a tariff for a tariffed on-bill program to successor customers at an upgraded site. The report recommends data collection on tariffed on-bill programs in order to assess the value of this attribute. Utilities with experience applying the notification protocols of the PAYS system have reported that the tariff applies automatically to successor customers, which protects customers from facing a lump sum payment for all future charges at that site upon departure as would be the case in the mortgage lender example attributed to NRDC.

Page 15, footnote #41:

> *"Another analyst observes: 'In the typical home sale transaction, the buyer obtains the property 'free and clear' of prior obligations. The buyer's mortgage lender typically makes paying-off and clearing all prior obligations a condition of closing. It is not clear whether a home buyer (and mortgage borrower) would be permitted by the mortgage lender to purchase a property subject to an open [TOB] loan obligation, or what effect the ongoing obligation would have on the purchase price, appraised value, or title insurance'.*[41]
>
> [41] *Philip Henderson, On-Bill Financing: Overview and Key Considerations for Program Design, NRDC Issue Brief, 4 (2013); at https://www.nrdc.org/sites/default/files/on-bill-financing-IB.pdf.*

The referenced publication is an issue brief prepared by NRDC that does not discuss or refer to tariffed on-bill programs.

The insertion by Legal Aid of a parentheses of "[TOB]" changes the meaning of the author's statement by equating a tariffed on-bill investment by a utility to a personal loan, much like Centerpoint's EZ Pay program. The cited section of the NRDC issue brief on loans is considering features of the NYSERDA On-Bill Recovery Financing Program, which is a loan program that a statute granted select features of TOB by linking the loan to the location with automatic transfer to successor owners. The quoted statement is the analyst's speculation about whether the statute in New York regarding debt obligations tied to a property would be automatically transferable. Notably, the loan-based program did not build in any further consumer protections (such as the 80/20 rule, work and program modeling warranty and evaluation/monitoring, etc).

There are no field reports of a home buyer being denied mortgage financing for homes upgraded through a Tariffed On-Bill investment by a utility, which is not a loan nor a lien on the property.

Page 17, footnote #53

> *"The lower the household's income, "the greater its risk regarding loan affordability, given the lack of budget flexibility and the margin of error that is necessarily a part of bill neutrality calculations."*[53]
> [53] *Chris Kramer, Consultant to the Connecticut Energy Efficiency Board, Disconnection and On-Bill Repayment (2014), at 16; at http://utilityproject.org/wp-content/uploads/2014/04/OBR-Report-for-CT-EEB-4-2-14.pdf.*

The 2014 paper cited is also, again, not describing Tariffed On Bill or Pay-As-You-Save programs, but rather is a very thorough analysis of the potential implications of an on-bill loan (OBL/OBR) program, which had been authorized to issue *personal loans* where debt payments would be *equal* to savings (i.e. bill neutral) rather than with a deeper buffer or 20% or greater as in PAYS programs.

The paper draws on well conducted research to support the assertions quoted by Legal Aid. The statement that Legal Aid is quoting is about the vulnerability of *low income households in loan programs in which debt payments are calculated to equal estimated savings on an annual basis*, and the observations of the author are correct. It is important to note, of course, that performance of energy efficiency savings estimates is a function of many factors. Estimates improve *significantly* when estimation models are calibrated with historical billing data, as is proposed if Centerpoint commits to using the Pay As You Save system.

Page 19, footnote #59 and #60-62, (same as footnote #40, 41)

> *"Findings from similar TOB programs in Delaware and Oregon, which showed success rates of only 34% and 47%, respectively, also cast doubt on any claim that actual results will meet estimates and predictions with regularity.*[59] *Another study sums up the problem: "[h]istorically, the variance in actual [TOB] energy savings versus estimates across individual participants has been substantial."*[60] *Thus, as one study noted, banking on "energy savings to repay financing [when] those savings fail to materialize...may actually increase risk."*[61] *In fact, some TOB participants could experience "higher total bills after [installation of the] efficiency improvements."*[62]
>
> [59] *Mitchell Rosenberg, The Resource Value of Whole House Retrofit Evaluated Experience of Established Programs, presented at 2013 ACEEE Energy Efficiency as a Resource Conference, Nashville (Sept. 23, 2013), at 9; at https://www.aceee.org/files/pdf/conferences/eer/2013/1A-rosenberg.pdf. The paper also showed savings in a New Hampshire program were only 53% of estimated savings and, in New York, ranged from as little as 35% to 67% of estimates. Id.*

[60] *The State and Local Energy Efficiency Action Network, Financing Energy Improvements on Utility Bills: Market Updates and Key Program Design Considerations for Policymakers and Administrators (May 2014), at 26; at https://www4.eere.energy.gov/seeaction/system/files/documents/onbill_financing.pdf.*

[61] *Id.*

[62] *Philip Henderson, On-Bill Financing: Overview and Key Considerations for Program Design, NRDC Issue Brief, 4 (2013); at https://www.nrdc.org/sites/default/files/on-bill-financing-IB.pdf.*

The papers Legal Aid is referencing and the programs on which they are reporting are again *not* TOB programs nor the specific Pay-As-You-Save programs, so the instances cannot, with any accuracy, be described as "similar TOB programs," as Legal Aid has done here. The programs are on-bill, personal loan-funded whole-home energy efficiency upgrade programs with debt payments set at 100% of estimated savings in order to aim for bill neutrality.

Legal Aid's citation of these program performance values implies that all energy upgrade programs are equivalent, when in fact they differ in specific important dimensions that are typically the drivers of markedly differing results and consumer protections.

Here are two examples of these seemingly small nuances that drive very different outcomes in savings and consumer protections:

- In the cited cases, many of the programs were *contractor* driven and therefore have that embedded conflict of interest (i.e. the installation contractor who is pricing and benefiting from the job is also *scoping* and *selling* it to the participant). It is obvious, in these cases, that a contractor would have an incentive to overestimate.
- In PAYS and TOB programs, contractors are not involved in signing up participants in TOB programs. The program operator role in PAYS programs is almost the same as Home Energy Squad/CEE's role in energy auditing, but is perhaps even one step more removed from self-interest as the program operator does not offer the financing, and receive no interest payments.

- In these cited cases, even if there was no intentional or unconscious distortions in pricing and estimates by the contractor, contractors are also often not an expert in initial data gathering as well as the job of installation itself, nor an expert user of the modeling software, which introduces errors which the papers highlight as the cause of the underperformance. The papers also underline that some programs used deemed savings estimates and that these are the programs with the lowest realization rates.
- In PAYS programs, deemed savings are not used for the major energy savings equipment estimation, but rather a home-specific analysis is performed. In addition, the program operator handles all of the on-site data gathering, develops the scope of work and applies rigorous geocoded, timestamped photographic QA/QC to all upgrades to prevent contractor distortion and error. The underlying point that having accurate energy estimation software is important for

ensuring good program outcomes is absolutely valid, which is why calibrating energy estimates with historical billing data has been an operational priority program operator role in PAYS programs in the U.S, rather than using a static deemed savings approach.

Page 21, footnote #66 and #67

"In sum, as one national low-income energy expert concludes, TOB 'is not a good residential choice.' [66] "

"The following Philadelphia Gas Works analysis of TOB sums it up: '[A] building's energy usage may increase (or decrease) due to changes that have nothing to do with efficiency...There are innumerable extraneous factors, not related to the efficiency investment, that can and will affect whether a customer's energy efficiency investment will yield bill neutrality. The factors that will impede achieving bill neutrality are frequently associated with household characteristics. Household factors such as household composition, household behavior and household appliances will all affect whether the household experiences bill neutrality as a result of any given energy efficiency investment [and] change in household size, subsequent changes to the structure [and the], addition of energy-using household equipment.[67]"

[66] Roger Colton, On-Bill Financing of Energy Efficiency: Not a Good Residential Choice, FSC'S LAW & ECONOMICS INSIGHTS, Issue 15-04 (July-August 2015), at 2.
[67] Id.

The quoted section is another critique of *bill neutrality* and *On-Bill Loans* (OBR/OBL), neither of which are features or functions of the Pay As You Save system. Further, the hypothetical cases described mixed scenarios - ones where the participant would have higher energy consumption in the absence of the program and those where the participant might face higher bills because of a loan program that set debt payments to be 100% of estimated savings.

For example, take the household that adds an appliance. If they were enjoying a savings net of the cost-recovery charge or even a genuinely bill neutral situation before adding the appliance, then their costs with the appliance will still be lower or unchanged despite being a program participant than if they had never participated. Thus in this case the participant's circumstance is better or indistinguishable from a non-participant, rather than worse as implied by the Legal Aid. This is also the case for increases in occupancy.

It is true that a *significant* reduction in occupancy *could* create a circumstance where the customer is paying marginally higher bills than they would otherwise. In general the TOB charges average about $30-50/mo (20-30% of the total monthly bill). Should savings fall short by 20% it would amount to $6-10/mo. Balance this with the improved health, comfort, and increased protection from high bill spikes that occur in extreme weather that are the most frequent cause of customers being in jeopardy of non-payment of their utility bills. These customers are more insulated against the quite regular instances of

6-10% utility increases in overall rates, which makes the cost-effectiveness greater and greater as years go on. Because the participants are also not income-eligible participants, this unlikely circumstance should also be balanced against these households having no other accessible option to reduce their bills at all (i.e. can't qualify for low-income programs, can't pay upfront with cash or a loan).

Proponents of bill neutrality rely on extreme weather events, but there is still at least a 50-50 chance that the participant is saving more than they pay. The attack by Colton on bill neutrality is sound - particularly for personally attached loans. This reality of variation is precisely the purpose of the 80% rule in the Pay As You Save system that other loan-based programs do not have. Lots of scenarios do happen - a substantial buffer and rigorous, home-specific testing effectively guards against those scenarios while expanding access to those who currently have no options that acknowledge or meet their circumstances.

Page 30, footnote #95

> *"Both the United States Department of Energy and the Natural Resources Defense Council describe TOB as a "loan."*[95]
>
> [95] *United States Department of Energy, Office of Energy Efficiency & Renewable Energy, On-Bill Financing and Repayment Programs (characterizing TOB as "a loan [that is] transferable to the next owner of the home or building"); at https://www.energy.gov/eere/slsc/bill-financing-and-repayment-programs; and Henderson, supra note 41, at 1 (including TOBF in the umbrella term "on-bill financing" and asserting that this type of program "refers to a loan made to a utility customer…the proceeds of which would pay for energy efficiency improvements.").*

The issue brief by NRDC cited by Legal Aid does not discuss tariffed on-bill programs nor describe them as a loan. It does describe a loan program run by the state of New York as a "tariff-based" loan program because a change in state statute permitted the debt obligations to be tied to the property with debt service for the lender being conducted by the utility. This loan program is not a tariffed on-bill program, and it is not similar to the program being proposed by CPE. The citation for the U.S. Department of Energy quoted by Legal Aid is in a sentence that is, again, taken out of context and mislabeled as a description of a Tariffed On-bill Program. The full statement says:

> "In some on-bill repayment programs, the loan is transferable to the next owner of the home or building."

The U.S. Department of Energy's Issue Brief on tariffed on-bill programs specifically states that:

> "The on-bill tariff model differs from on-bill loans and repayment models in that tariffs are not a loan, but rather a utility expenditure for which cost recovery is tied to the utility meter according to terms set forth in a utility tariff."[45]

For all PAYS programs, which represent the overwhelming majority of current TOB programs are examples of utility investment, do not involve any of the core features associated with loans, and have not been considered or treated as falling under Truth In Lending laws or other forms of banking regulation. They do not involve personal debt, loans, liens or contracts between the utility and the participant only execution of a participant agreement to the tariff terms.

[45]US Department of Energy. "Issue Brief: Low-income Energy Efficiency Financing through On-Bill Tariff Programs" https://betterbuildingssolutioncenter.energy.gov/sites/default/files/IB%20L-I%20EE%20Financing%20through%20On-Bill%20Tariffs_Final_0.pdf