

To: Patricia Poli, Michigan Public Service Commission staff

Thank you for the opportunity to provide comments on the Michigan Public Service Commission's current potential study efforts and the 2016 Consumers Energy and DTE potential studies that are helping to inform these efforts. This feedback opportunity is an essential part of ensuring that the process for Michigan's Integrated Resource Plan fairly evaluates energy efficiency as a resource that can aggressively compete with supply-side resources. If you have any questions regarding the information provided in these comments, please contact Annika Brink at (202) 333-8931 x141 or abrink@nhtinc.org.

COMMENTS OF the National Housing Trust

I. Organizational Background

The *National Housing Trust (NHT)* is the only national nonprofit that protects and improves multifamily affordable housing through public policy advocacy, real estate development, and lending. NHT engages in policy work in all 50 states and owns over 3,500 units of multifamily housing across ten states and the District of Columbia. Since its inception, NHT has preserved or helped to preserve more than 36,000 affordable homes through real estate development, lending, and technical assistance.

NHT recognizes energy efficiency improvements to multifamily affordable housing as a powerful tool to achieve Michigan's public policy objectives, lower expenses for owners and residents, maintain housing affordability, improve the health and comfort of low-income families, individuals, and seniors, and create local jobs.

Since 2014, when we kicked off our work with a dialogue session in Lansing attended by 15 affordable housing owners, property managers, and advocates, NHT has worked with Michigan partners to facilitate dialogue on increasing energy efficiency in affordable multifamily housing. Through regular conversations and larger convenings of stakeholders across a diverse range of sectors, we have explored the barriers facing owners of low-income multifamily housing, as well as the potential solutions that can drive greater energy efficiency investments.

Throughout these comments, we use the term "multifamily" to mean buildings containing five or more apartments.

II. Comments

Multifamily and specifically low-income multifamily need to be considered as their own sectors. In Michigan, about 13% of households live in multifamily buildings and a disproportionate percentage—almost 60%—of these households are low-income.¹ Multifamily buildings are very different from single family buildings: they have different decision-makers, metering arrangements, and potential energy savings measures. For the sake of equity, potential studies must carefully consider energy savings potential for this disproportionately low-income sector. We believe the best way to do so is to not only separately consider this sector, but also to transparently document the methodology used for analyzing this sector, and to separately report potential savings for multifamily AND for low-income multifamily.

None of the [three 2016 utility potential studies](#) appear to have considered the energy savings potential of multifamily or low-income multifamily buildings as a stand-alone sector. Or, at least, none of the potential studies provide information indicating that they have done so. We would welcome additional documentation from the utilities on how they considered the multifamily sector in their potential studies.

¹ Analysis built on U.S. Census data, Table B25024; National Housing Preservation Database; and New Market Tax Credit qualified Census tract information. See 2015 [Energy Efficiency for All Potential Study](#) for full methodology.

Certainly, the state should be much more transparent in its consideration of multifamily and low-income multifamily buildings going forward. As it is, the utility studies:

- do not present sector-level energy savings potential for multifamily/low-income multifamily
- do not describe how/whether multifamily energy savings potential has been incorporated into residential sector or commercial sector savings estimates or both (utilities often treat multifamily common areas as commercial and resident units as commercial)
- do not indicate whether “commercial” measures in multifamily buildings were included in their low-income energy savings estimates (low-income measures are described only as being “in the residential analysis”)

Without this information, it is very difficult to equitably size energy savings programs serving Michigan’s multifamily and low-income multifamily households. Any potential study work going forward should separately analyze the following four sectors:

	Low-Income	Non Low-Income
Multifamily	1. Low-Income Multifamily	2. Market-Rate Multifamily
Single Family	3. Low-Income Single Family	4. Non-Low-Income Single Family

As it is, the description of how low-income was handled is extremely brief, and does not give a completely clear picture of the methodology used. Further, the results for low-income measures are lumped into the overall residential category, making it hard to independently check the reasonableness of the results specific to this sector (whether multifamily or single family). As noted above, a finer sector analysis is necessary to ensure that ALL types of low-income households are equitably served.

It is also not clear what definition of low-income is used by GDS in its analyses. The affordable housing sector uses the Department of Housing and Urban Development’s official definition of low-income, which is 80% of area median income. If the definition used by GDS is lower, it may result in a much lower total savings estimate in the low-income sector. This matters for total savings potential because low-income incentives are assumed to cover 100% of incremental cost, which results in much higher adoption rates.

All spaces within low-income multifamily buildings should be treated as low-income for potential study, incentive level, and penetration rate purposes. Further clarity is needed on how “commercial” spaces within low-income multifamily buildings (such as corridors and whole-building systems) have been treated in the utility potential studies. Measures found in these spaces should be subject to the same incentive levels and assumptions accorded to measures found within low-income “residential” spaces, that is, resident apartments themselves.

Existing potential studies can provide valuable information on the energy savings potential of the multifamily and low-income multifamily sectors. A [2015 potential study of Michigan’s affordable multifamily housing](#) carried out by Optimal Energy for the Energy Efficiency for All project found substantial savings in affordable multifamily homes. In April 2017, Optimal Energy converted these TRC-based savings calculations to UCT-based calculations, which revealed cumulative maximum achievable electric savings in Michigan’s affordable multifamily sector of 25.2% over 20 years (2015-2034). This percentage ranged from 24.8% for DTE to 25.6% for Consumers Energy. Natural gas savings

varied less: the statewide UCT-based cumulative maximum achievable savings over 20 years was estimated at 10.2%.²

There are no comparable energy savings estimates provided for low-income multifamily in the utility potential studies. The Energy Efficiency for All UCT estimates for this sector are shown below.

	Cumulative Electric Savings by Year (MWh)			Cumulative Electric Savings by Year (% Total Usage)		
	Year 1	Year 5	Year 20	Year 1	Year 5	Year 20
Michigan Total	34,670	141,918	519,125	1.7%	6.9%	25.2%

	Cumulative Natural Gas Savings by Year (MMBtu)			Cumulative Natural Gas Savings by Year (% Total Usage)		
	Year 1	Year 5	Year 20	Year 1	Year 5	Year 20
Michigan Total	17,269	203,480	2,298,708	0.1%	0.9%	10.2%

These savings estimates assume that incentives cover 100% of incremental cost in low-income multifamily buildings. It is difficult to compare the Energy Efficiency for All savings to those found by Consumers Energy and DTE, because the utilities did not break out multifamily or low-income multifamily by sector.

The utility potential studies may tend to underestimate potential based on some shortcuts in its analysis. First, the studies do not generally account for emerging technology likely to achieve market share in the next 20 years, or changes in existing technology leading to lower costs and/or higher savings (although there are a few exceptions, as with residential LEDs). Further, GDS does not seem to evaluate the UCT for all years in the study—if it fails in Year 1 it seems to be excluded from the potential, even if it may pass in a future year. These shortcomings will lead to an overall underestimate of potential, including in the low-income multifamily sector.

The utility potential studies set an arbitrary threshold for considering low-income measures, even though low-income programs are not required to be cost-effective. Since the low-income programs are paying 100% of incremental cost instead of 50%, measures with a 1.0 UCT in non-low-income buildings will only achieve a 0.5 UCT in low-income buildings, given the exact same overall costs and savings. While GDS somewhat compensates for this by lowering the UCT threshold to 0.5 for low-income measures, this really only allows the exact same measures promoted in non-low-income buildings to be promoted in low-income buildings. Setting the UCT at 0.5 for low-income is, essentially, an arbitrary threshold: given the fact that low-income measures do not need to be cost-effective, there is no reason that a potential study should not set the UCT at 0.0 for low-income.

The utility potential studies appear to artificially restrict the potential savings in low-income buildings by assigning 100% incentives ONLY TO A SUBSET RATHER THAN TO ALL measures in low-income buildings. The utility potential studies include footnotes that say, “Traditional low income measures associated with Michigan’s Weatherization Assistance Program were evaluated using 100% incentives across all three achievable potential scenarios. All other measures were evaluated at the 50%

² Original 2015 Energy Efficiency for All *Potential for Energy Savings in Affordable Multifamily Housing* here: <http://energyefficiencyforall.org/sites/default/files/EEFA%20Potential%20Study.pdf>. Additional calculations are unpublished.

incentive level.”³ This is extremely problematic: the potential studies should treat ALL measures in low-income buildings as “low-income” (thus receiving the 100% incentive), not just measures that are currently promoted in Michigan under the Weatherization Assistance Program. For example, it appears that advanced power strips were treated the same in low-income vs. non-low-income households. This technology accounted for significant savings in the Energy Efficiency for All potential study, and paying the full cost of the measure could significantly boost the penetration in the low-income sector.

Applied across several measures, the result would be that the utility potential studies systematically underestimate low-income energy savings potential. There is no justification for assigning non-low-income-level incentives (50% rather than 100% of incremental cost) to certain low-income measures.

Potential study analysis should consider additional utility benefits as part of the Utility Cost Test for low-income programs. A growing body of evidence on non-energy benefits or NEBs is showing that such benefits are highly significant, particularly for low-income energy efficiency programs. These benefits include benefits to the utility such as reduced arrearage carrying costs, reduced costs associated with customer collection calls and notices, reduced termination and reconnection costs, and reduced bad debt write-offs. We believe it is reasonable to include such utility benefits in calculations of the Utility Cost Test for low-income programs.

Thank you for the opportunity to provide comments.



Annika Brink

Energy Efficiency Advisor
National Housing Trust

³ This footnote can be found in the DTE Gas study on page 33, footnote 26; in the DTE Electric page 48, footnote 35; and in the Consumers Energy study page 49, footnote 38.