BEFORE THE
NEW YORK STATE
PUBLIC SERVICE COMMISSION

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Proceeding on Motion of the Commission as to the Rates, Charges, Rules and Regulations of Central Hudson Gas & Electric Corporation For Electric Service	**CASE 17-E-0459**

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Proceeding on Motion of the Commission as to the Rates, Charges, Rules and Regulations of Central Hudson Gas & Electric Corporation For Gas Service	**CASE 17-G-0460**

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DIRECT TESTIMONY BY JENNIFER METZGER ON BEHALF OF CITIZENS FOR LOCAL POWER

November 21, 2017

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Q. Please state your name, title, and business address.

A. My name is Jennifer Metzger, and I am Director of Citizens for Local Power (CLP). My business address is P.O. Box 514, Rosendale, N.Y. 12472.

Q. On whose behalf are you testifying?

A. I am testifying on behalf of Citizens for Local Power (CLP), a community-based organization that works to inform citizens and local governments in the Mid-Hudson region on energy issues of concern to them and to help make their voices heard in energy decisions that affect them. CLP is dedicated to transitioning to an equitable, affordable, locally-based clean energy economy through research, public education and outreach, and by catalyzing community, municipal, and inter-municipal action.

Q. Please state your educational background and professional experience.

A. I have a B.A. in Government with High Honors from Oberlin College, and a Ph.D in Political Science from Rutgers University, with concentrations in international relations, political economy, and environmental policy. As Director and co-founder of Citizens for Local Power, I have represented the organization in numerous proceedings of the Public Service Commission relating to the Reforming the Energy Vision (REV) Initiative as well as proceedings on utility street light tariff amendments and the previous Central Hudson rate case. I also participate in a number of state-level working groups, including the Clean Energy Advisory Council's Working Group on Voluntary Investments and the Sub-Working Group on Community Choice Aggregation Programs; and Working Groups on the Value of Distributed Energy Resources relating to low- and moderate-income customers and to rate design. As CLP's lead representative in Commission proceedings and working groups, I undertake policy research and analysis, draft CLP's comments and proposals, and participate in in-person meetings. In 2015-2016, I also participated in a Rocky Mountain Institute-facilitated REV Public Participation Working Group to improve public participation, and in particular, participation by low- and moderate-income communities.

At the local and regional level, I provide information to municipal officials and the public on energy and utility issues, and I am a frequent speaker at municipal and community meetings, workshops and forums. I am also a project partner in the NYSERDA-funded Mid-Hudson Streetlight Consortium, providing subject matter expertise on utility street light tariffs and on-going technical assistance to municipalities to convert to LEDs.

In addition to my work for CLP, I have over ten years of experience in municipal government as a current Rosendale Town Council Member, former Deputy Town Supervisor, former Chair of the Town of Rosendale Environmental Commission, and member of the Town Climate Smart Community Task Force and Zoning Code Review Committee. I have led a number of energy-related projects and programs for the Town, including installation of public electric vehicle infrastructure, municipal energy assessments and energy efficiency improvements, and educational and outreach programs for residents and businesses on improving energy efficiency and reducing energy costs. I also led the drafting of the first local law in New York State, in 2009, setting emissions standards for outdoor wood boilers. Earlier in my career, I conducted extensive public outreach and education on climate, energy and sustainable development issues as part of my work as Public Affairs Coordinator for the United Nations Association in New York.

With reference to a portion of my testimony regarding the Company's line clearance and ROW programs, I would also mention that I am familiar with protection of listed species of bats, as well as habitat protection more broadly, as a result of my seven years of experience serving on the Rosendale Environmental Commission.

Q: Have you previously testified before the Commission or any other public service commissions?

A: Yes, I testified before the Commission in the Proceeding on the Motion of the Commission as to the Rates, Charges, Rules and Regulations of Central Hudson Gas & Electric Corporation for Electric and Gas Service, Cases 14-E-0138 and 14-G-0139.

Q: What is the purpose of your testimony?

A. The purpose of my testimony is to:

- Discuss CLP's concerns about the rate increase and certain capital and expense items that have been proposed.
- Discuss and make recommendations regarding the Company's fixed charges. Specifically, I will make the case that Central Hudson's fixed charges are excessive and inconsistent with public policy goals, and will recommend shifting a greater share of meeting the revenue requirement to volumetric charges.
- Discuss concerns about the proposed new "Service Size Charge."

- Provide information and discuss concerns with the Company's recently approved Time-of-Use (TOU) rate design.
- Discuss the Company's proposed Earnings Adjustment Mechanisms (EAMs), and recommend higher targets as well as program design improvements for EVs, energy efficiency, and renewable heat. I call for ending the gas expansion program and channeling these resources into more prudent investments in energy efficiency and beneficial electrification. I also recommend scorecard reports to customers to increase transparency and accountability, enhance customer understanding of public policy objectives, and further incentivize the utility to meet public policy objectives.
- Demonstrate that pole attachment fees charged to S.C. No. 8 Rate C streetlight customers are unreasonable, have no basis in actual costs to the utility, and should be discontinued.
- Recommend that the Company's Main Street Revitalization Program be continued.

Before addressing these substantive issues, I would like to make a procedural recommendation for this rate case.

Q: What is your procedural recommendation?

A: We request that the Commission hold a second set of public hearings to allow for more meaningful public input into this rate case. Many community members shared with us that they were unaware of the scheduled information sessions and public statement hearings in October 2017 until after the fact, when the hearings were reported in the media. A second set of public hearings would provide wider opportunity for the public to participate, as well as more meaningful input if this case proceeds to settlement. It is also essential that the public have an opportunity to weigh in on any proposed changes that result from the settlement process—especially given many types of customers, including residents, small businesses, and local governments, are not directly represented in these closed-door negotiations. We request that additional hearings be held in Newburgh, Poughkeepsie, and Kingston after a Joint Proposal is filed with the Commission.

Q: Turning to the substantive issues you wish to raise, please explain your concerns about the impacts of the proposed rate in the service territory.

A: Residents in our communities, especially low- and moderate-income (LMI) residents, are already struggling to pay their bills and cannot afford the proposed rate hike. These include seniors, working families, the disabled, those currently unemployed or underemployed, and young people burdened with college debt. In Ulster County, residents living on household incomes at 80% or less of the state median income comprise about 43% of the population; in Greene County, they comprise nearly 50% of the population, based on U.S. Census Bureau, 2011-2015 American Community Survey 5-Year Data, published on September 15, 2016. Low-income residents are hit hardest of all. In the City of Newburgh, low-income residents make up over *half* of the city's households; in the City of Kingston, they make up 43.8% of households. An April 2017 analysis by Fisher, Sheehan & Colton, provided in Exhibit__JM-CLP-1, reveals that residents with income levels at or below 50% of the federal poverty level have a staggering energy burden of 40.8% of gross household income in Ulster County (nearly 4,800 households), 39.3% in Dutchess County (about 4,600 households), 43% in Greene County (about 980 households), and 35.6% in Orange County (about 7,400 households). These figures far exceed the 6% standard for household income that is considered affordable.

The higher rates are also a burden on our small businesses, which are the backbone of the local economy for many communities in this service territory. Small businesses typically have very thin margins, and a rate increase imposes a much larger burden than it does for big box stores and other large commercial enterprises and retail chains. Many businesses on our Main Streets struggle to remain viable, and turnover is frequent.

Our residents and businesses do not get a break. With the exception of the small concession of a one-year rate freeze following the acquisition of Central Hudson by the Canadian-based holding company, Fortis Inc., rates have increased every year and are proposed to increase again in each year for the next three years, with no relief in sight. We see no evidence that the takeover has resulted in demonstrable benefits to ratepayers outside of the near-term sweeteners added to the acquisition deal. Indeed, proposed expenditures in this rate case suggest that the benefits flow in one direction only, to Fortis shareholders, and we do not believe that this level of expenditure is justified.

Q: What expenditures benefiting shareholders do you find objectionable?

A: We strongly oppose the increase in the allowed rate of return from 9% to 9.5%, and see no justification for it. According to the Company's presentation at the Technical Conference for this rate case on September 7, 2017, the return on equity and equity layer would cost ratepayers an estimated $4.1 million in the Rate Year, driving 7% of the rate increase. The regulated rate of return on invested capital should be just high enough to ensure that investors are willing to fund Central Hudson's investments. As Tom Konrad, a CFA and investment manager based in Stone

Ridge, New York, observed in his public statement at the hearing on this rate case in Kingston on October 10, 2017, the Company is asking to fund more of its capital expenditures with equity and less with debt, which, alone, would reduce the overall risk of its capital structure and increase regulated return while also increasing the attractiveness of the Company to equity investors. There is no material basis for an increase in the regulated rate of profit.

I would add, moreover, that as a result of the Commission's *Order Adopting a Ratemaking and Utility Revenue Model Policy Framework,* or "Track Two Order," issued on May 19, 2016, utilities are now permitted to earn additional profit for meeting REV objectives through "Earnings Adjustment Mechanisms," or "EAMs," and the Company has proposed EAMs in this rate case for which shareholders can earn up to $5.2 million dollars in additional profits in 2018, and up to $8 million in additional profits for each year through 2021. We believe there is a stronger argument for reducing Central Hudson's regulated rate of return rather than increasing it, as a reduction would increase the incentive to reach EAM targets in line with public policy goals.

Q: Are there other proposed expense items that you would like to address in testimony?

A: Yes, I will address the following items: The Employee Share Purchase Plan, the line clearance and right-of-way (ROW) maintenance, which constitutes 19% of the rate increase; information technology costs, accounting for 6% of the rate increase; the proposed no-fee credit card payment option; and the proposed training center, which involves a substantial capital expense over $36 million as well as operational expenses over $1.6 million once constructed.

Beginning with the Employee Share Purchase Plan, the Company launched this program in May 2017 to enable employees to invest up to 10% of their annual base pay for the purchase of Fortis stock, which is then matched at the 10% level by Central Hudson. According to the Staffing Panel Testimony, this program, which includes company executives, is to be funded entirely by ratepayers at a projected cost of close to $100,000 in 2017, $250,00 in 2018, and $300,000 in for the Rate Year. We do not believe this additional ratepayer expense is justified, given current levels of compensation and benefits for executives—the employees most likely to receive the greatest benefit from the program.

Turning to the Company's line clearance and ROW spending, Central Hudson stated at the Technical Conference for this rate case, at public hearings, and in testimony that NYS DEC regulations pertaining to two listed species of bat, the Indiana Bat and the Northern Long-Eared Bat, have limited its trimming window and, as a result, the Company has incurred and will continue to incur additional costs for its program. Central Hudson has not quantified this expense, but has emphasized that these regulations are an important factor in increasing expenses. On Pages 6 to 8 of the Vegetation Management Panel Testimony, the Mr. DuBois describes the impact of NYS DEC on the Company's planning and operations, stating that State restrictions prevent trimming as well as tree removal in specified bat zones between April 1 and October 31. I have not found any information verifying this description of regulations. NYS DEC's guidance for the protection of these listed species only applies to tree removal, not trimming. Moreover, according to Amanda Bailey, a NYS DEC Wildlife Biologist at Albany headquarters, who I spoke with by phone, the guidance allows exceptions for human health and safety reasons, and a power outage is considered by the Department to pose a threat to human health and safety. Trees that pose a threat to service reliability are permitted to be removed any time of year.

As someone who lives in a community that is home to the endangered Indiana Bat, I appreciate the Company's concern to protect these listed species. However, the guidelines only govern the removal of trees. Central Hudson's line clearing program involves substantially more tree-trimming than it does tree removal, and trimming is likely to account for the lion's share of program costs. Those costs should not be affected by activity to preserve the roosting habitat of listed bat species. It would be more economical to undertake tree-trimming and danger-tree removal year-round, and make it a practice of avoiding altogether removal of trees in the bat zones that are over 4 inches dbh, the threshold for trees supporting bat habitat. This practice would also better preserve bat habitat. If, during the roosting season, trees are identified that for some reason must be removed even if they do not pose an imminent threat to reliability, the contractor can mark them for removal during the recommended season of November 1 to March 31.

I would also like to point out an inefficiency in the Company's current line clearance practices that wastes ratepayer money. As communicated to me by the Town of Rosendale Highway Superintendent, and as shown in Exhibit__JM-CLP-2, which includes pictures he took of recent line clearing by the Company at different locations in town, Central Hudson's contractors waste time and resources trimming dead and dying trees infected by Emerald Ash Borer (EAB) rather than removing them altogether. Since dead trees will likely need to eventually be removed so that they do not fall on the lines, ratepayers can end up paying twice for work on a tree that should have been done at one time. Moreover, removal of infected trees helps slow the spread of EAB, saving money in the future as well as mitigating the spread of disease. Given that the Company has proposed a forecasted cost, per danger tree, of $689 for removal, it would be more efficient and less costly to take care of these trees during routine line clearance and ROW maintenance.

I would also like to address the argument in Witness's testimony that costs have increased as a result of "the significant increase in the number of danger trees resulting from Emerald Ash Borer (EAB) (ash trees), Wooly Adelgid (hemlock trees), Dutch Elm Disease (elm trees), White Pine Decline (pine trees), and Gypsy Moths/Oak Wilt (oak trees), which are impacting both Transmission ROW Management and Distribution Line Clearance." (Please see Vegetation Management Panel Testimony, Page 9, Lines 11-16.) First, several of these, while devastating, have been around for some time, including Dutch Elm, Wooly Adelgid, and Gypsy moths. It is not clear what the basis is for forecasting an increase in danger trees associated with these conditions. "White Pine Decline" is not a disease so much as a gradual phenomenon related to environmental conditions, and would not cause a dramatic change in tree mortality. The only condition that could be reasonably expected to meaningfully increase the number of danger trees is EAB. However, the budgetary impact of this increase would be limited to the danger tree removal program and not affect routine line maintenance, which accounts for 60% of the Company's proposed line clearance and ROW spending, as compared to danger trees, which only account for just 1.3% of that budget, based on data provided in the Vegetation Management Panel Testimony Exhibit__(DLD-2). The exaggerated impacts of NYS DEC regulation and tree diseases on line clearance and ROW maintenance activities casts doubt on whether the substantial cost increase in these programs is justified.

Turning to Information Technology, or "IT," investment and expenses, Central Hudson has proposed to spend $21.8 million in capital investment and $9.2 million in O&M in the Rate Year, and a total of $96 million in capital investment over five years. The Company argues that these investments are essential for implementing the REV initiative. We agree that Central Hudson needs to make information technology investments related to managing a distributed energy system, and to better accommodate alternative rate design and billing that support a clean distributed system more generally. However, there are a number of expenses included in this rate plan that appear to us as less important or immediately necessary than minimizing rate impacts to our residents and small businesses. These include expenses for mobile phone apps, "live chat" website functions, and various the other costs related to the Company's Digital Initiatives for Customer Engagement, or "DICE."

We also wish to express our concern that ratepayers are being asked to shoulder 100% of costs associated with developing CenHub as a platform for selling third-party products and services, when shareholders are expected to eventually capture half the revenues from these investments as profit in the form of Platform Service Revenues. These expenses include investments in "business intelligence" and "enterprise services-oriented architecture," which are foundational investments for this platform. On page 32, lines 5-6 of the Direct Testimony of the Customer Engagement Panel, the Panel proposes that shareholders receive 50% of the profit from sales of products through the CenHub store. We argue that earnings should be fully returned to ratepayers to offset capital and operational costs that ratepayers have paid for. We also note that some of the products currently sold through CenHub have nothing to do with energy, such as Google WiFi and home security systems.

Q: Are there any IT investments directly related to customer services that you believe should be prioritized?

A. Yes, bill redesign should be prioritized because it is a prerequisite for customers to better control their energy use and costs. The current bill design is totally inadequate in presenting the basic components of the bill in an accessible, transparent way. Residents cannot understand by looking at the bill what most charges are for. In addition, consolidated billing should be enabled to better accommodate services supplied by third-parties, including Community Choice Aggregation (CCA) programs and community distributed generation projects. Finally, to prevent customer confusion in communities where CCA programs have been established, the supply charge should be associated on the bill with the CCA program rather than with the Energy Supply Company providing supply through the CCA.

Q: Are there any other costs relating to customer services that you wish to discuss?

A: Yes, we do not see a justification for spending ratepayer money to offer no-fee bill payment by credit card, especially given that most customers continue to pay their bills through the mail. The Company has proposed to spend approximately $344,000 in 2019, $811,000 in 2020, and over $1 million in 2021 to provide a no-fee service to customers—a large expense, given that only 10,000-12,000 customers, or about 3% of all customers, paid by credit card in

2017. Data on credit card payments was provided to MI in response to an Information Request, and is included in Exhibit__JM-CLP-3.

Q: Are there any other specific expenses that you believe are not justified?

A: Yes. While we strongly believe in the necessity and value of employee training programs, the proposed $36 million employee training center is an out-sized expense for Central Hudson's small customer base, both in terms of capital costs and on-going expenses. Once fully constructed, annual operational costs are expected to exceed $1.6 million in 2022, according to the Training and Development Panel Exhibit__(TDP-3). We believe that other, less costly, options should be explored. These include partnering with local community colleges and Boards of Cooperative Educational Services on classroom space to reduce costs. Improvements to existing public educational facilities would expand the public benefit from the Company's investment. Central Hudson should also explore sharing facilities for hands-on training with other utilities, such as with Consolidated Edison and New York State Electric & Gas. Sharing facilities would have the added benefit of encouraging the exchange of information and ideas among employees of the different, non-competing utilities.

Q: Do you have any other issues relating to the proposed revenue requirement that you will like to discuss?

A: I would like to note that an exhaustive review of proposed expenses is beyond our very limited resources, and therefore would like to make a more general recommendation regarding the proposed revenue requirement. With all REV-related spending, we urge Staff and the Commission to encourage prioritization in order to reduce the sizeable additional rate impacts of

REV reforms. In our view, expenses such as no-fee credit payments and the development of phone apps are less of a priority than investments in the distribution system to support a cleaner, more reliable grid. We also note that the Company already has over 1,000 employees and has proposed to add another 68 new staff positions. Many of these would be administrative and staff positions, as opposed to operational boots-on-the-ground positions that are so important to system reliability. The total cost of these new positions is forecasted for the Rate Year to be $6.4 million, accounting for nearly 5% of the rate increase, according to a Company response to an Information Request by CLP, included in Exhibit__JM-CLP-4. When reviewing the costs of new administrative and staff positions, we urge that consideration be given to whether there is an immediate need for each of these positions; and whether the tasks can be performed by existing employees, with training, if necessary.

Q. Does that conclude the portion of your testimony concerning proposed expenses?

A: Yes.

Q: Turning to the next subject of your testimony, please discuss your concern with the Company's customer charge.

A. At the current rate of $24.00 per month, Central Hudson has the highest customer charge in the state and among the highest in the country. The Company is now proposing to raise it further, to $25.00 per month. In sharp contrast, utility fixed charges in most major U.S. cities range from $5.00 per month to $10.00 per month, according to the report, "Caught in a Fix: The Problem with Fixed Charges for Electricity," prepared by Synapse for the Consumers Union, February 9, 2016. The Company's current customer charge is excessive, even by New York's standards—37% higher than NYSEG and RG&E; 34% higher than Con Edison; 29% higher than National Grid; and 17% higher than Orange & Rockland. It is also excessive from the vantage point of energy affordability. In his statement at the hearing on this rate case in Kingston on October 10, 2017, Richard Berkley, Executive Director of the Public Utility Law Project, shared the following statistics underlining the affordability challenge in the service territory, including:

- In the City of Kingston, 28.8% of children under the age of 18, and another 8.7% of senior citizens, live in poverty;
- In the more rural communities of Lake Katrine and Pine Hill, 23% and 34% of residents, respectively, live below the poverty line;
- Across the Hudson in the City of Poughkeepsie, 35% of children and 11.7% of senior citizens live in poverty, and in the City of Newburgh, in Orange County, 46.7% of children and 26.7% of seniors live in poverty.

The disconnect between what the utility charges for residential service and what many people in the service territory can afford is severe.

Q. Are there additional concerns with Central Hudson's customer charge?

A. Yes. We argue that the Company's current customer charge is neither reasonable nor fair. As will be discussed later in this testimony, we also argue that Central Hudson's rate design is incompatible with most REV objectives. On the question of reasonableness, the Company lacks a compelling argument that its costs uniquely justify a charge that is so much higher than other utilities in the state or region. Central Hudson has often pointed to its relatively small size, with about 300,000 electricity customers, as a driver of its higher than average rates, since capital and expense costs must be spread over a proportionately smaller customer base. While there may be merit to this argument with regard to rates generally, other small utilities have lower customer charges. Orange & Rockland, which has 33.5% fewer customers (232,600 in total), charges its New York customers $4.00 less than Central Hudson, although that charge, too, is high by comparison to utilities outside of New York. In neighboring Connecticut, the smaller of the two investor-owned utilities, the United Illuminating Company, has a customer base similar in size to Central Hudson's, and recently reduced its fixed charges from $17.25 to $9.67 per month, according to an October 2017 report of the Acadia Center.

High fixed rates unfairly burden lower-usage customers with a higher proportion of the utility's costs. The current rate design is particularly punishing for elderly and low-income residents, as well as for the many people living just above the poverty line. While data is not available on median energy usage by income level for the approximately 90,000 low-income customers in Central Hudson service territory, a study by the National Consumer Law Center, included as Exhibit__JM-CLP-5, shows that in New York, median residential electricity usage is highly correlated with income. At income levels between $25,000 and $49,000, or between 42% and 80% of the state median income, median usage is just over 5,000 kwh annually in 2009. At income levels below $25,000, or about 41% of the state median income level, usage tends to be even lower, at about 4,000 kwh annually. By contrast, median usage by households with incomes at $75,000 to $99,000 is over 6,500 kwh annually, and households with incomes at or about $100,000 use over 8,000 kwh annually--over twice the energy used by the lowest-income customers.

The study by the National Consumer Law Center also shows that energy usage varies by age, with seniors shouldering a particularly heavy energy burden. The median usage of customers at or above the age of 65 is 4,000 kwh annually, while household median income for this age group is only $38,929—just slightly over the State's low-income threshold of 60% of state median income. And the elderly comprise a relatively large percentage of households in the Company's territory: In the major counties included in this territory, seniors account for 17% of the population in Ulster County, 15% in Dutchess County, 19% in Green County, and 12% in Orange County, according to U.S. Census Bureau, 2011-2015 American Community Survey 5-Year Data, published on September 15, 2016.

Q: Would the distributional consequences of the current rate design be mitigated by shifting a greater share of costs to the volumetric charge?

A: Yes, it would. An analysis undertaken for this testimony by CLP member Evelyn Wright, an energy economist and principle of Sustainable Energy Economics, LLC, shows that a reduction in Central Hudson's current fixed charge in increments of $5.00 would have a sizeable positive bill impact for the majority of customers, including low- and moderate-income customers and the elderly, since they tend to consume less than 8,000 kwh per year—the median usage level in Central Hudson territory. This analysis is provided in Exhibit__JM-CLP-6.

Q: How would Central Hudson's low-income customers be affected by such a rate re-design?

A: The majority of low-income customers would immediately see a bill reduction, and the majority of remaining low-income customers would see their bills increase by less than 10%, even when the recommended fixed charge reduction to $10 per month is fully phased in. Critically, these customers would now have the ability to reduce their bills, unlike under the current rate design. A rate re-design is a prerequisite for structurally addressing the energy affordability gap by empowering low-income customers to reduce bills by managing their consumption. As long as the fixed charge is high, the only way to reduce bills for the long term is through a subsidy.

We analyzed data on kwh usage in January and July 2017 by low-income customers participating in Central Hudson's Bill Assistance Program. This data was provided by Central Hudson in response to N.Y. Department of State Information Utility Intervention Unit (UIU) Request No. 16, Revised, and is included in Exhibit__JM-CLP-7. The data reveals seasonal differences, with significantly higher usage by a subset of customers in January compared to July, suggesting that low-income heating customers would see the biggest increase in bills during the colder months—an impact we recommend mitigating with both short-term and long-term measures, as I'll suggest shortly. The most important point is that without the proposed reduction in fixed charges, low-income (and all) customers are unable to significantly reduce their bills by managing their energy use, and ongoing subsidies will be the only way to increase affordability.

It should be pointed out that the Bill Assistance Program data set—which includes approximately 8,500 customers—represents only a small fraction of the low-income customers in Central Hudson service territory. We would expect the total number of low-income customers to be closer to 35% of the utility's residential customers, or about 90,000 households, based on the most recent census data on county-level median income in the service territory. Moreover, there is likely a selection bias in this data set because higher-usage customers may have more difficulty paying their bills and would be more likely to seek to participate in the bill assistance program or be directed to the program by the utility. On a service territory-wide basis, we would expect a significantly larger proportion of low-income customers to see an immediate bill reduction from the rate re-design as compared to those enrolled in the bill assistance program, given the findings by the National Consumer Law Center regarding the relationship between income and usage level.

Q: You mentioned that you would recommend mitigation measures for low-income customers who have higher than average usage levels. What do you suggest?

A. We suggest both near-term and long-term measures to mitigate bill impacts for low-income heating customers, as well as for the proportionately small number of non-heating low-income customers with high usage levels. As a near-term mitigation measure, Central Hudson could provide higher-usage low-income customers with an added per kwh bill discount for usage over 8,000 kwh. A shortcoming of this measure is that, like the current rate design, it does nothing to incentivize conservation and energy efficiency. It also does not address these customers' long-term energy burden, since usage remains unchanged. Therefore, this bill-impact mitigation measure should be combined with a low-income energy efficiency program targeted to customers with higher than average usage. Addressing the needs of the highest-usage customers first is a recognized best practice for low-income households, as identified by the report of the Clean Energy Advisory Council's Low-Income Working Group, Matter 16-01007, and should be considered by Central Hudson in its low-income program design regardless. Later in this testimony, in the discussion of EAMs, we propose that the Company target heat customers, specifically, for conversion to high-efficiency heat pumps.

Q: Is the Company's current rate design consistent with the Commission's REV initiative?

A: No, in fact the current rate design erects barriers in the service territory to achieving four of six REV objectives listed on Page 4 of the Commission's *Order Adopting Regulatory Policy Framework and Implementation Plan*, issued February 26, 2015, providing yet another compelling justification for reforming Central Hudson's rate design in this rate case. The barriers are:

1) The high customer charge inhibits reductions in carbon emissions by decreasing the incentive to conserve and invest in energy efficiency.
2) The high customer charge deprives customers of the "knowledge and tools that will support effective management of the total energy bill."
3) The high customer charge discourages "customer contributions" to achieving REV goals by conserving and by investing in DER.
4) The high customer charge discourages resource diversity by reducing the incentive to invest in renewable energy.

By charging low-usage customers proportionately more than high-usage customers, the Company sends the wrong price signals about reducing consumption, limits the ability of customers to control their energy costs, and extends the payback period for investments in distributed energy resources, making those investments less attractive. The bar graphs in Exhibit__JM-CLP-6 Illustrate clearly the perverse incentives created by this rate design. In

Central Hudson's previous rate case, Case Numbers 14-E-0318 & 14-G-0319, CLP pointed out the mismatch between REV objectives and the Company's high fixed charges, urging the Commission to reject the proposed increase in the customer charge. In its *Order Approving Rate Plan,* the Commission agreed with our reasoning that this was a traditional rate design and did not accept the increase that was part of the Joint Proposal, noting on Page 57 that changes in rate design "may well be required" as part of the REV proceeding. It is now more than three years into the REV initiative, and we believe that the time for requiring such a change has come.

Q. Would keeping the fixed charge of $24.00 in place in the proposed Rate Year address your concerns?

A. No, it would not. For the reasons explained earlier in this testimony, the current fixed charges are excessive and should be reduced. Our assessment is supported by 131 local and county elected officials who are signatories to a letter to the Commission, a copy of which is provided in Exhibit __ JM-CLP-8, urging the Commission to reduce utility fixed charges. Close to 90 of the signatories represent communities in Central Hudson territory.

Q. What change do you recommend to the Company's rate design?

A. We recommend reducing the customer charge to $20 in the proposed rate year, followed by a further reduction to $15 in 2019 and $10 in 2020, which would bring the utility's charges into better alignment with charges regionally and nationally, better conform to the principle that rates must be reasonable and fair, and better support REV objectives. The reduction in the fixed charge would be accompanied by an increase in the volumetric charge in order to meet the revenue requirement that is ultimately approved by the Commission in this rate case. As shown in Exhibit__JM-CLP-6, about 60% of Central Hudson customers fall below the median annual usage threshold and would see their bills reduced. For the remainder of customers, their bills would increase in response to their higher usage, providing an incentive to use less.

Q: Should the Commission wait to require a rate design change until after the Value of Distributed Resources (VDER) Rate Design Working Group completes its work?

A: No, we urge the Commission to address the Company's rate design in this rate case. As demonstrated earlier in this testimony, the current customer charge is excessive when compared to customer charges elsewhere in the state and regionally, and when examined in the context of the economic conditions in the service territory. Even with the proposed reduction to $20.00 in the Rate Year, the Company's fixed charge would still be among the highest in the state. The proposed step-down in the customer charge over three years provides an opportunity to monitor and evaluate the impacts of a progressively lower fixed charge from year to year. I would also note that the Commission last week approved a new TOU rate design proposed by the Company. Re-designing the standard rate will do much more to positively affect the majority of customer bills and align customer incentives with REV goals than will an optional TOU rate. Finally, it is not clear that the VDER process will address this issue, and customers would not be served by further delay in addressing an issue so contrary to the REV and to the public interest.

Q: Is there anything else you would like to add to your testimony regarding customer charges?

A: Yes. I have not addressed the question of how specific costs are to be divided between the customer charge and the volumetric charge. Our recommendations are not based on a detailed cost analysis in this case but, rather, on a path to align Central Hudson's rates with regional and national best practices, as well as important State policy objectives, while also meeting the revenue requirement. In our view, Central Hudson's unreasonable application of rate design principles has thus far failed to produce outcomes that are fair, reasonable, equitable, and consistent with State energy goals. I would urge Staff and the Commission to take a broad view in evaluating Central Hudson's current rate design, taking into account its negative consequences for society and the opportunity we now have to reform the residential rate to the immediate benefit of the majority of customers in a way that is consistent with REV objectives. Customer charges should be no higher than the cost of keeping a customer connected to the grid, along with related customer service.

Q: Would you like to speak to any other issues regarding SC 1 rates?

A: Yes, I would like to address the Company's proposed new "Service Size Charge," which would be additional to the existing customer and volumetric charges for those customers that consume more electricity than the service territory average. As proposed, each customer would be assigned, on an annual basis, a Service Size threshold level corresponding to their usage over the previous 12 months. Customers that consume over 9,000 kwh would be charged an additional $1.00-$4.00, depending on the fee associated with their Service Size tier. While we support the general principle that customers with higher-than-average consumption should bear a greater share of the delivery costs, we are concerned that the proposed charge is arbitrary and not cost-based. Moreover, the 12-month time period for readjusting the rate is too long to provide an effective price signal to customers to reduce consumption. We believe that our proposals for lowering the customer charge and increasing the volumetric charge will do more to incentivize customers to conserve energy, invest in distributed energy resources, and generally gain greater control over their energy costs. Finally, this charge would have a significant impact on heating customers, a number of whom are low-income. Any significant increases in charges for low-income customers must be mitigated, as discussed.

Q: Are there any other rate design issues you would like to address in this testimony?

A: Yes, I would like to discuss the Company's Time-of-Use (TOU) rate design that was just approved on November 16, 2017, in Case 17-E-0369, Petition of Central Hudson Gas & Electric Corporation for Time of Use Rate Review and Recommendations. In that proceeding, CLP filed comments on November 7 requesting that a decision on Central Hudson's proposal be delayed until after this rate case. We argued that postponement would allow related rate design issues to be considered in an integrated way as part of this proceeding. Moreover, a rate case also allows for discovery by Parties to help ensure a thorough examination of all relevant issues for the benefit of customers. The Commission denied our proposal based on a concern that our request would unduly delay implementation. We respectfully disagree with the Commission and wish to offer testimony demonstrating that insufficient analysis was undertaken by the Company in designing the new rate, and that flaws in the original rate design and public outreach plan have not been addressed.

Q: What are your concerns with Central Hudson's new TOU rate design?

A: First, we want to note a major improvement in the new TOU rate design over the current TOU rate design—namely, a reduction in the on-peak window from 12 hours to five hours, which is more closely related to actual peak usage and gives customers significant more flexibility to shift load off-peak. As the Company noted in its filing, a shorter on-peak window is a well-established rate design principle for TOU rates.

This change alone is not, however, sufficient to ensure that the Company's TOU rate will benefit customers in the service territory. According to information obtained through discovery in this rate case by UIU, provided in Exhibit__JM-CLP-9, the Company developed this rate without the benefit of any analyses of 1) residential load in its service territory to inform rate design, 2) alternative time-sensitive rates; or 3) the bill impacts of TOU vs. standard rates. The Company also did not examine how and whether the proposed TOU rate would benefit subsets of customers, such as low-income customers or customers with technologies for which a TOU rate design would be particularly valuable. These analyses are essential for developing a rate design that is appropriate for Central Hudson customers, and for equipping the utility to provide enough information to customers so that they can make an informed decision about participating.

Such due diligence is particularly important given the fact that many participants in the previously approved TOU rate do not appear to have benefited from it. Exhibit__JM-CLP-10 includes a table developed by CLP on the percentages of TOU customers that saved money and lost money compared to the standard rate, based on data provided through discovery that is included in the same Exhibit. The table shows that in two of the five years between 2012 and 2017, customers ended up paying more compared to the standard rate. In 2012, as much as 63% of customers paid more compared to the standard rate, and in the first half of 2017, 51% of customers paid more. And in two of the four years in which a majority of customers saved, 23%-27% of customers still ended up losing money. Participation in Central Hudson's TOU rate has decline every year since the height of participation in 2001, with 7,211 customers. Today, only 975 customers participate. According to the Company's response to an Information Request from CLP, no surveys were undertaken to understand why customers stopped participating. This would be important information to have when designing improvements to the rate.

There were several problems with the current rate that also pertain to the new rate. One issue is the high fixed charge of $27.00, which is problematic for all the same reasons discussed earlier in this testimony with respect to the standard residential fixed charge. In addition, a TOU rate that is 22% higher than the standard rate of $24.00 makes it more difficult for customers to achieve savings, since customers must shift more load to off-peak hours to make up the difference between the TOU fixed rate and standard fixed rate.

Another problem is that the Company does not provide adequate information on its website for customers to be able to determine whether or not they would benefit from a time-variant rate in the first place. The website provides no information about whether customers with average or less than average loads may benefit, or what an optimum usage profile might look like. This increases the likelihood that customers could make the wrong decision about participating in the TOU rate. And if they do make the wrong decision, they are stuck paying higher rates for a full year, since the Company requires a one-year commitment to participate. Finally, customers only receive one communication, 12 months after enrollment, about their savings compared to the standard rate, making it more difficult for them to manage their use in a way that maximizes savings.

The education, outreach, and enrollment plan proposed by the Company and approved by the Commission does not address these shortcomings. No mention is made in the Company's plan about providing information to customers that will enable them to assess their pattern of energy use and whether they are able to shift a sufficient portion of their load enough to be economically beneficial. Once enrolled, customers will have access through the utility website to monthly data on their on- and off-peak usage, but will not be able to compare savings with the standard rate.

Under the new rate, the Company will continue to require that customers commit to participating for a year, which is unreasonable given their inexperience with time-varying rates and the level of uncertainty they will have about whether the rate will benefit them. The new rate actually increases uncertainty and makes customers more vulnerable to supply price volatility because the supply rate will now be based on actual day-ahead market prices rather than on pre-set fixed monthly prices. Customers should be equipped with information that enables them to evaluate their savings from month to month, and should be given the opportunity to opt out after the first month, and then again after the sixth month of participation.

We have concerns that the pricing structure may not deliver meaningful enough savings to incentive participation. The Company stated on Page 11 of its filing in Case 17-E-0369 that, "further analysis of the alternative S.C. No. 6 rates indicates that for each five percent shift in usage from the on-peak to the off-peak period each month results in a 0.65 percent decrease in the total bill excluding surcharges at the annual usage level of 7,500 kWh." According to a 2017 report of Consumer and Clean Energy Advocates, data from TOU pilot studies suggest that residential customers are, *at most*, able to shift 3%-10% of their load without additional technologies; thus any possible savings through the TOU rate for typical residential customers will be very small, as will be the incentive to participate.

In conclusion, the recently approved TOU rate, along with education, outreach and enrollment plan to support it, have not been developed with adequate analysis and do not adequately address the shortcomings of the existing rate and plan. We believe these shortcomings need to be addressed if the TOU rate is to deliver value to customers and the grid. Later in this testimony we also recommend development of an alternative TOU rate specifically for EV drivers that will encourage EV adoption while managing the impacts of EV charging on distribution system.

Q: Are there any other REV-related programs relevant to this proceeding, other than rate design, that you would like to discuss?

A: Yes, I would like to discuss and make recommendations concerning the Company's proposed Earnings Impact Mechanisms, or EAMs. According to the Commission REV Track II Order, EAMs are supposed to align utility financial incentives with REV objectives by rewarding utilities with additional profit for achieving certain well-defined public policy outcomes. The Commission approved guidelines for EAMs, and directed utilities to develop specific EAMs in their rate cases. Central Hudson has proposed EAMs in six areas: energy efficiency, carbon intensity, system efficiency, interconnection, customer engagement, and DER utilization.

We are concerned to make sure that any EAM approved by the Commission includes 1) targets that are meaningful, going well beyond what we would expect under status quo conditions, 2) utility actions that are cost-effective, and 3) outcomes that are clearly measurable. If the

Company is to be permitted to earn up to $8 million in additional profit, as approved by the Commission in its Track II Order, then ratepayers should see significant and demonstrable progress in advancing public policy objectives within the service territory.

Q: Do you agree that the Company should receive EAMs for all of the proposed objectives?

A: No, we do not agree that the Company should receive a profit incentive for "customer engagement." As defined by the Company, customer engagement is measured by increased customer interaction with its website and by participation in voluntary time-variant rates. The Company already has a material incentive to engage customers at its website, since building a user base is an investment that will result in future profits in the form of Platform Service Revenues for energy services, including third-party community solar subscriptions. And as discussed earlier in this testimony, the recently approved TOU rate has shortcomings that need to be addressed before the Company is rewarded for enrolling customers in it.

We also note that there appears to be some redundancy among targets: Central Hudson would be rewarded for the same MWh reductions for the energy efficiency EAM and the DER Utilization EAM. We recommend that energy efficiency not be treated as a separate EAM.

Q: Do you believe the Company has set its targets at appropriate levels for receiving additional profits?

A: No, we argue that the targets are generally too low. In the area of energy efficiency, the Company is asking to be rewarded $2.4 million in profit to achieve a MWh reduction target that is nearly 25% lower than the established value in its Commission-approved Energy Efficiency Transition Implementation Plan (ETIP), and only half the level of reduction achieved in 2016. Central Hudson has stated that its Realistic Achievable Potential Study, completed after the ETIP was approved, shows that the opportunities for further cost-effective reductions are limited; however, we disagree and believe that this target should be more aggressive. For example, Central Hudson could achieve substantial energy efficiency gains by expediting the process for municipalities to purchase their street lights and convert to LED, which can reduce energy consumption by a minimum of 65%. In 2015, Central Hudson's street lights consumed about 16,158 Mwh of electricity, or about 72% of the Company's 2019 proposal annual Mwh target. The total consumption is now lower, with over 10% of lights already converted to LED, but the opportunity for energy savings remains very large. In addition, there is significant potential to improve the energy performance of buildings, particularly when installation of heat pumps is combined with improvements to the building envelope. We recommend that the utility integrate building efficiency improvements into its beneficial electrification programs. Btu, rather Mwh, would be a more valuable measurement for capturing the full range of possible energy savings through improved efficiency.

We also argue that Central Hudson's heat pump program targets can, and should, be more aggressive. For 2018, the Company has proposed to sign up only 793 participants in its air source/mini-split heat pump program, and only 138 participants in its ground source heat pump program. These are fairly insignificant numbers when viewed in the context of the State's climate goals. The residential and commercial building sector currently accounts for about a third of New York's carbon emissions. The State cannot achieve its target of reducing carbon emissions by 80% by 2050 below 1990 levels in the absence of major reductions in on-site fossil-fuel combustion in buildings. Currently, renewable heating and cooling—both air- and ground-source heat pumps—account for a mere 1% of heating and cooling systems statewide. We have a long way to go to make a dent in reducing carbon emissions in this sector. Higher targets are achievable, especially given the incentives and programs that NYSERDA has recently rolled out as part of its Renewable Heat NY initiative.

The shift to renewable heating and cooling can make a particularly big impact on on-site emissions reductions in Central Hudson territory, where most customers still rely on fuel oil, and to a lesser extent, propane. Central Hudson territory must leap-frog over natural gas in order to meet state climate goals. <u>We urge the Commission to require the Company to discontinue its natural gas expansion program and reallocate those funds to renewable heating and cooling, with a priority focus on low-income heat customers.</u> Natural gas expansion is not only inconsistent with New York's climate policy but also with the state's policy to reject hydraulic-fracturing for the extraction of natural gas on human and environmental health grounds. It is inconsistent to ban the practice here while encouraging the practice elsewhere through State-supported gas natural expansion.

Q: The Company has also proposed an EV initiative as part of its Carbon Reduction EAM. Do you have any recommendations regarding the target or program?

A: Transportation is the single largest source of carbon emissions in New York, and effective programs by utilities to encourage EV adoption while managing their impact on the grid are critically important. Central Hudson proposes to offer a customer incentive for vehicle purchase, and proposes targets for customer participation of 1,228 in 2018, 3,684 in 2019, 6,140 in 2020, and 8,596 in 2021. While we are pleased to see an EV program as part of this rate plan, the Company's program design is unimaginative, and does not take advantage of the utility's unique position to increase the EV adoption rate in the service territory. Moreover, the targets are set too low, given current market trends as well as means at the Company's disposal to promote the EV adoption through better program design.

According to the Rocky Mountain Institute, in the last decade, the plug-in market expanded to 20 different models, battery costs dropped by 70%, and the number of EV charging stations grew to 16,000.[1] By the end of 2016, New York had the highest number of plug-in EVs on the road than any northeastern state, and a number of counties in Central Hudson territory have among the higher levels of EV ownership statewide, according to NYSERDA's Electric Vehicle Registration Map. This map has not been updated since November 2016, prior to the release of the Chevy Bolt and Tesla Model 3, and likely underestimates current EV ownership in the region. With the introduction of these EVs, with ranges of 238 and 310 miles per charge, respectively, all-electric vehicle sales nationally increased by 86% in 2017 over the previous year.[2] Bloomberg New Energy Finance, *Electric Vehicle Outlook 2017*, predicts that U.S. EV sales will grow from the current level of just over 1% to over 3.5% in 2021. Any targets set for customer adoption in the service territory should exceed forecasted trends, nationally and in the service territory.

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[1] Rachel Gold and Cara Goldenberg, Driving Integration: regulatory Responses to Electric Vehicle Growth, Rocky Mountain Institute, 2016: p. 11.
[2] Zachary Shahan, "!00% Electric Sales Up 86% in 2017 (US Electric Car Sales Report)," Clean Technica, Aug. 2, 2017.

There is much that the Company could do, other than offering a rebate, to accelerate adoption of EVs. With its access to several hundred thousand customers, the Company could potentially negotiate a discount for an aggregated purchase of EVs from a manufacturer, bringing the cost down further at no cost to ratepayers. We also strongly recommend that the Company develop a TOU rate specifically for EV drivers that will 1) encourage EV use in line with REV climate goals and the approved EAM target in this rate case, and 2) encourage off-peak charging. Under Central Hudson's recently approved TOU rate, a customer with below average household usage who owns an electric vehicle and shifts charging to off-peak hours would still end up paying more than the standard rate, even though an electric vehicle can increase household usage by 50%. PG&E, in California, has developed a TOU rate for EV drivers that has been intentionally designed to ensure that customers with more efficient household usage, and therefore less elastic demand, can reduce their costs by charging at off-peak times. An attractive TOU rate for EV drivers would benefit both the grid and the climate. Central Hudson could create a very appealing package for customers, marketing purchase price discounts and a TOU rate together to further accelerate the adoption of EVs.

Finally, we recommend that the Company offer an incentive to encourage installation of free charging stations at workplaces to support off-peak charging, with a higher incentive for charging units co-located with renewable systems. By adding these three recommended programs—an aggregated purchase program, an EV TOU rate, and a workplace charging incentive—Central Hudson could achieve more aggressive targets for EV adoption while better ensuring that the shift to electric vehicles does not aggravate peak demand.

Q: Do you have any concerns about the Company's targets for solar PV penetration in the service territory?

A: Yes, the Company's target of 60,714 MWhs for 2018 strikes us as low, given 1) the large increase from year to year in customer-sited PV since 2013, as shown in data provided by the Company in response to Staff's Information Request No. 687; and 2) the continued success of NYSERDA's New York Sun Program in accelerating customer adoption of PV. Moreover, growing public awareness that net-metering is coming to an end for systems installed after 2020 may cause residents to make the investment in solar sooner rather than later.

Q: Do you have any other recommendations with regard to performance incentives?

A: Yes, another, much less costly utility performance incentive is transparency, and we recommend that the Commission require the Company to annually send customers a Department of Public Service-verified "scorecard" reporting utility progress in meeting EAM program targets, as well as targets to reduce customer shut-offs and improve affordability. A scorecard for the public must be presented in accessible, readily understandable language, free of utility regulatory jargon. In addition to incentivizing utility behavior in line with public policy objectives, a scorecard mailed to customers with their bill would also serve a valuable and much-needed educational and awareness-raising function, which is essential for increasing customer engagement and implementing REV objectives.

Q: Turning to streetlighting, please explain your concern about fees charged to municipal customers who own their lights.

A: Municipal street light customers who own their street lights and pay a delivery-only rate to Central Hudson are additionally charged a pole attachment fee of $7.27 per pole for a Company-owned pole and $3.62 per pole for a pole owned jointly with a third party—costs that add up with ownership of hundreds, and in some case thousands, of lights. According to Exhibit__ (FRP-14), Schedule H, of the Forecasting and Rates Panel, the proposed fees for the Rate Year would be increased further, to $8.43 per pole, and $4.20 per pole, respectively. We argue that these attachment fees should be eliminated altogether because municipalities, as electricity customers paying delivery rates for street lights, are already paying for poles and should not be made to pay for them twice. The attachment of street lights does not incur any additional expense to the Company. The poles do not suffer wear-and-tear as a result of these attachments, and all costs of removing and replacing street lights are paid for by the customer, including expenses incurred when a pole is knocked down in an accident or storm.

Q: Does the Company classify and allocate any of its pole maintenance expense or capital costs specifically to street light customers?

A: No, the Company does not. As shown by Central Hudson's response to CLP's Information Request No. 6, provided in Exhibit__CLP-JM-11, the Company states that, "the classification and allocation methodology utilized by the Company as described above does not distinguish between poles with or without streetlights as the costs incurred related to the delivery of electricity rather than the attachment of lights to poles." The pole attachment fees are unrelated to cost causation.

While charging a pole attachment fee to telecommunications companies for supporting their facilities makes sense, since this use is entirely unrelated to the delivery of electricity, there is no basis for charging such a fee to street light customers. We urge the Commission require that attachment fees be removed from the Company's tariff, PSC No. 15, S.C. 8 – Public Street and Highway Lighting. Communities who own their street lights should not be burdened with this unnecessary expense.

Q: Does that conclude your testimony with regard to pole attachment fees?

A: Yes.

Q: Please explain your concern with the Company's proposal to end the Main Street Revitalization Program.

A: We recommend that this program be retained because of the continuing challenges that many communities in the service territory face with vacant and blighted areas of their downtown business districts—particularly in smaller rural communities. The Company has not made a good case for eliminating this program from the suite of possible economic development grants that can be funded through its remaining balance of $3.58 million. In the Business Development Panel Testimony, the Witnesses state that "projects were initially difficult to find," after the program was first approved in 2012, but that the Company eventually rewarded five grants in 2014, in total, three of which have been completed. Central Hudson has not solicited any new applications since 2014. We would argue that this program has barely established a track record, and should continue, based on the need for this type of assistance in the service territory. We would also recommend reducing the required matching contribution by applicants. Communities faced with challenges of blight typically lack the resources to address them. Smaller communities, in particular, are constrained by a small tax base and small capital budgets, and are not typically able to come up with 66% of the project costs, as required by the program. While they are permitted to meet a third of the project costs by other means, such as by obtaining other grant funding, these resources are scarce and costly to secure. The difficulty faced by rural communities in meeting the project financing requirements is supported by the fact that three of the five grants for a program intended for small- to medium-sized towns have gone to the three cities in Central Hudson service territory. We recommend that this grant program be maintained and that the percentage of project costs covered by the grant be increased to 75% for smaller projects of $100,000 or less, and 50% for projects ranging from $150,000 to $250,000.

Q: Does that conclude your direct testimony?

A: Yes, thank you.

STATE OF NEW YORK
PUBLIC SERVICE COMMISSION

Proceeding on Motion of the Commission as to the Rates, Charges, Rules and Regulations of Central Hudson Gas & Electric Corporation for Electric Service.	**Case 17-E-0459**

Proceeding on Motion of the Commission as to the Rates, Charges, Rules and Regulations of Central Hudson Gas & Electric Corporation for Gas Service.	**Case 17-G-0460**

EXHIBIT JM-CLP-6

JENNIFER METZGER
CITIZENS FOR LOCAL POWER, INC.

Dated: November 21, 2017

<u>Residential Fixed Charge Bill Impacts Analysis</u>
Prepared by Evelyn Wright, Sustainable Energy Economics, for Citizens for Local Power

This exhibit computes the bill impacts of various levels of monthly fixed charges on residential customers by consumption level, using data provided by Central Hudson. The analysis shows that reducing the monthly fixed charge substantially reduces the bills of the lowest consuming customers, providing a stronger incentive for all customers to manage their consumption, while having a much lesser percentage impact on customers with above average consumption.

The first page contains data on customer numbers and average consumption at various annual consumption levels, provided by Central Hudson in response to PULP-1, IR-002, along with the proposed service size charge levels. The second page computes the average monthly bills for customers within each usage level and the total annual revenue, based on Central Hudson's proposed monthly fixed charge of $25/month and volumetric rate of $ 0.08495/kWh. It then computes the volumetric charge that would be required to maintain this level of total annual revenue at monthly fixed charges of $20, $15, and $10 per month. The following three pages compute the average monthly bills for customers in each usage class and graph the corresponding percentage change in those bills from those associated with the proposed $25/month charge.

At CLP's recommended target fixed charge level of $10/month, the lowest consuming customers would see their bills cut in half, while those in the very highest usage class would see a 16 percent increase. The majority of customers – those consuming at the median level of 5000-6000 kwh annually through those consuming up to two and a half times the median level – would see less than a 10 percent impact on their bill in either direction.

Data from Central Hudson - Response to PULP-1, IR-002

Annual kWh (Upper Limit of Threshold)	*Percent of Customers*	*Cumulative Percent*	*Number of customers*	*Total annual kWh in group*	*Average annual kWh per customer*	*Proposed Monthly Service Size Charge*
1,000	3.6%	3.6%	9,090	4,304,068	473	-
2,000	5.5%	9.1%	14,045	21,723,511	1,547	-
3,000	7.8%	16.9%	20,024	50,386,383	2,516	-
4,000	8.6%	25.5%	22,072	77,384,421	3,506	-
5,000	8.9%	34.4%	22,620	101,845,852	4,502	
6,000	8.9%	43.3%	22,690	124,750,146	5,498	-
7,000	8.4%	51.7%	21,537	140,013,692	6,501	-
8,000	7.8%	59.5%	19,973	149,618,234	7,491	-
9,000	6.9%	66.4%	17,616	149,521,318	8,488	1.00
10,000	6.0%	72.5%	15,425	146,332,266	9,487	2.00
11,000	5.1%	77.6%	12,977	136,098,295	10,488	2.00
12,000	4.2%	81.8%	10,826	124,319,766	11,483	2.00
13,000	3.4%	85.2%	8,595	107,323,569	12,487	3.00
14,000	2.7%	87.9%	6,919	93,256,888	13,478	3.00
15,000	2.2%	90.1%	5,642	81,684,956	14,478	3.00
20,000	6.0%	96.1%	15,437	263,279,075	17,055	4.00
Over 20,000	3.9%	100.0%	9,862	275,097,008	27,895	4.00
			255,350	2,046,939,448		

Compute total revenue requirement, as proposed by Central Hudson, at fixed charge of $25/month

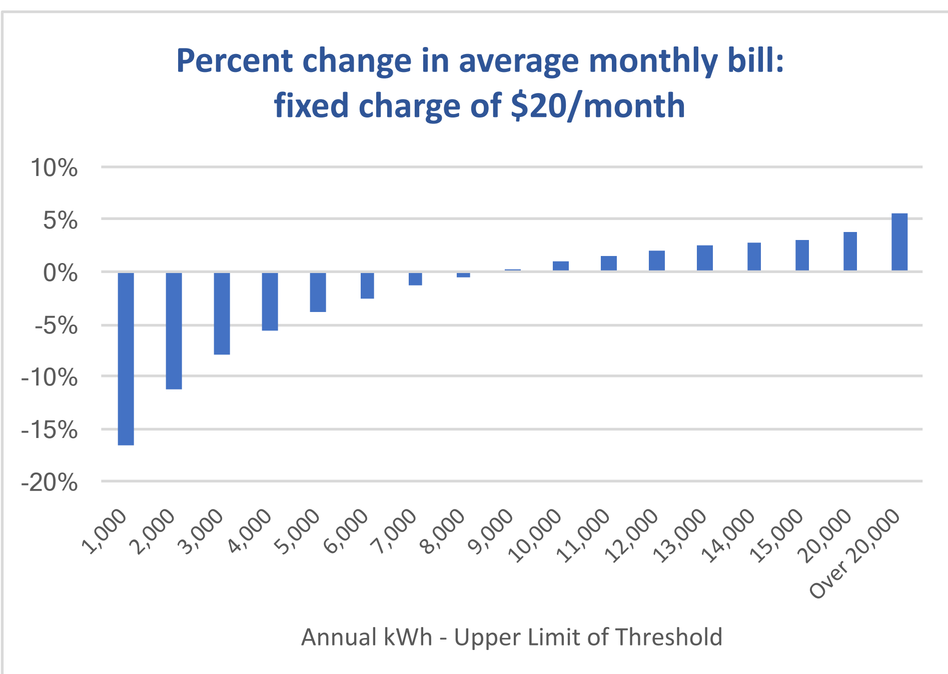
Annual kWh (Upper Limit of Threshold)	Fixed charge	Volumetric charge	Service size charge	Monthly bill per customer
1,000	2,727,000	365,631		28.35
2,000	4,213,500	1,845,412		35.95
3,000	6,007,200	4,280,323		42.81
4,000	6,621,600	6,573,807		49.82
5,000	6,786,000	8,651,805		56.87
6,000	6,807,000	10,597,525		63.92
7,000	6,461,100	11,894,163		71.02
8,000	5,991,900	12,710,069		78.03
9,000	5,284,800	12,701,836	211,392	86.09
10,000	4,627,500	12,430,926	370,200	94.16
11,000	3,893,100	11,561,550	311,448	101.24
12,000	3,247,800	10,560,964	259,824	108.29
13,000	2,578,500	9,117,137	309,420	116.40
14,000	2,075,700	7,922,173	249,084	123.42
15,000	1,692,600	6,939,137	203,112	130.49
20,000	4,631,100	22,365,557	740,976	149.74
Over 20,000	2,958,600	23,369,491	473,376	226.47
	76,605,000	173,887,506	3,128,832	**253,621,338**
		Total revenue:	**253,621,338**	
		Fixed+volumetric revenue only:	250,492,506	

Estimate volumetric charge required for different levels of fixed charge

Fixed charge	Fixed charge revenue	Volumetric revenue required	Volumetric rate needed
25	76,605,000	173,887,506	0.08495
20	61,284,000	189,208,506	0.09243
15	45,963,000	204,529,506	0.09992
10	30,642,000	219,850,506	0.10740

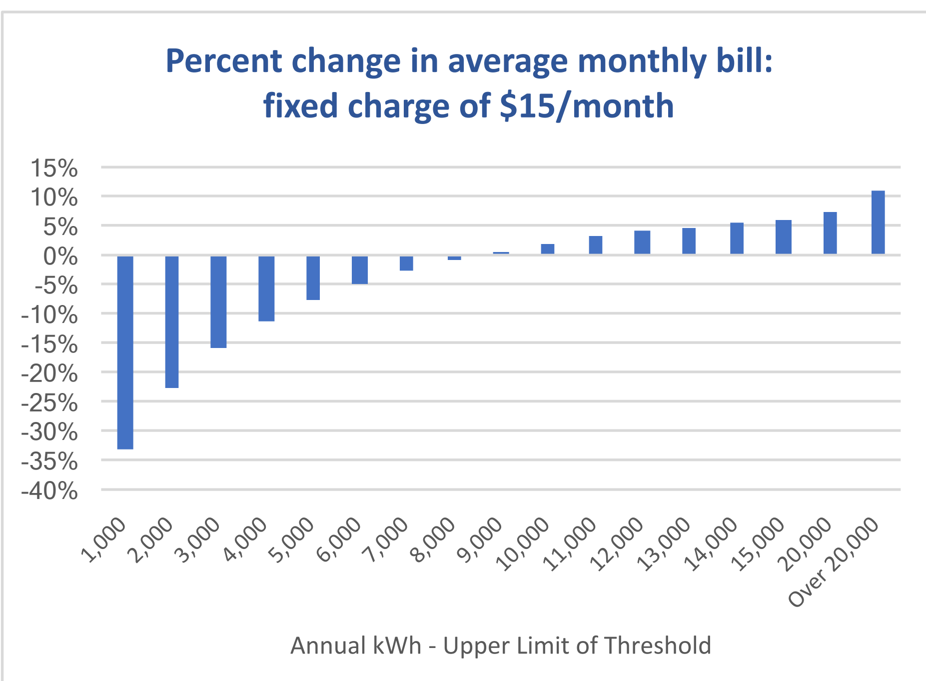
Calculate monthly bills at fixed charge of $20/month

Annual kWh (Upper Limit of Threshold)	Fixed charge	Volumetric charge	Service size charge	Monthly bill per customer	% change in monthly bill from $25 rate
1,000	2,181,600	397,846		23.65	-17%
2,000	3,370,800	2,008,009		31.91	-11%
3,000	4,805,760	4,657,457		39.38	-8%
4,000	5,297,280	7,153,016		47.01	-6%
5,000	5,428,800	9,414,104		54.68	-4%
6,000	5,445,600	11,531,259		62.35	-2%
7,000	5,168,880	12,942,142		70.08	-1%
8,000	4,793,520	13,829,936		77.70	0%
9,000	4,227,840	13,820,978	211,392	86.38	0%
10,000	3,702,000	13,526,199	370,200	95.08	1%
11,000	3,114,480	12,580,223	311,448	102.79	2%
12,000	2,598,240	11,491,477	259,824	110.46	2%
13,000	2,062,800	9,920,436	309,420	119.18	2%
14,000	1,660,560	8,620,185	249,084	126.82	3%
15,000	1,354,080	7,550,535	203,112	134.52	3%
20,000	3,704,880	24,336,157	740,976	155.37	4%
Over 20,000	2,366,880	25,428,546	473,376	238.87	5%
	61,284,000	189,208,506	3,128,832	**253,621,338**	
		Total revenue:	**253,621,338**		



Calculate monthly bills at fixed charge of $15/month

Annual kWh (Upper Limit of Threshold)	Fixed charge	Volumetric charge	Service size charge	Monthly bill per customer	% change in monthly bill from $25 rate
1,000	1,636,200	430,061		18.94	-33%
2,000	2,528,100	2,170,606		27.88	-22%
3,000	3,604,320	5,034,591		35.95	-16%
4,000	3,972,960	7,732,226		44.19	-11%
5,000	4,071,600	10,176,404		52.49	-8%
6,000	4,084,200	12,464,993		60.78	-5%
7,000	3,876,660	13,990,121		69.13	-3%
8,000	3,595,140	14,949,804		77.38	-1%
9,000	3,170,880	14,940,120	211,392	86.67	1%
10,000	2,776,500	14,621,471	370,200	95.99	2%
11,000	2,335,860	13,598,896	311,448	104.33	3%
12,000	1,948,680	12,421,990	259,824	112.62	4%
13,000	1,547,100	10,723,735	309,420	121.97	5%
14,000	1,245,420	9,318,197	249,084	130.23	6%
15,000	1,015,560	8,161,934	203,112	138.55	6%
20,000	2,778,660	26,306,757	740,976	161.01	8%
Over 20,000	1,775,160	27,487,601	473,376	251.27	11%
	45,963,000	204,529,506	3,128,832	**253,621,338**	
		Total revenue:	**253,621,338**		



Calculate monthly bills at fixed charge of $10/month

Annual kWh (Upper Limit of Threshold)	Fixed charge	Volumetric charge	Service size charge	Monthly bill per customer	% change in monthly bill from $25 rate
1,000	1,090,800	462,276		14.24	-50%
2,000	1,685,400	2,333,203		23.84	-34%
3,000	2,402,880	5,411,724		32.52	-24%
4,000	2,648,640	8,311,435		41.38	-17%
5,000	2,714,400	10,938,703		50.30	-12%
6,000	2,722,800	13,398,727		59.21	-7%
7,000	2,584,440	15,038,100		68.19	-4%
8,000	2,396,760	16,069,671		77.05	-1%
9,000	2,113,920	16,059,262	211,392	86.97	1%
10,000	1,851,000	15,716,744	370,200	96.91	3%
11,000	1,557,240	14,617,569	311,448	105.87	5%
12,000	1,299,120	13,352,502	259,824	114.78	6%
13,000	1,031,400	11,527,034	309,420	124.76	7%
14,000	830,280	10,016,209	249,084	133.64	8%
15,000	677,040	8,773,332	203,112	142.58	9%
20,000	1,852,440	28,277,357	740,976	166.65	11%
Over 20,000	1,183,440	29,546,656	473,376	263.67	16%
	30,642,000	219,850,506	3,128,832	**253,621,338**	
		Total revenue:	**253,621,338**