OCC EXHIBIT ____

BEFORE
THE PUBLIC UTILITIES COMMISSION OF OHIO

In the Matter of the Application of Columbia Gas of Ohio, Inc. for Authority to Amend its Filed Tariffs to Increase the Rates and Charges for Gas Services and Related Matters.	)	Case No. 21-637-GA-AIR
In the Matter of the Application of Columbia Gas of Ohio, Inc. for Approval of an Alternative Form of Regulation.	)	Case No. 21-638-GA-ALT
In the Matter of the Application of Columbia Gas of Ohio, Inc. for Approval of a Demand Side Management Program for its Residential and Commercial Customers.	)	Case No. 21-639-GA-UNC
In the Matter of the Application of Columbia Gas of Ohio, Inc. for Approval to Change Accounting Methods.	)	Case No. 21-640-GA-AAM

DIRECT TESTIMONY OF COLLEEN SHUTRUMP

On Behalf of the
Office of the Ohio Consumers' Counsel
65 East State Street, Suite 700
Columbus, Ohio 43215

May 13, 2022

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Attachments

Attachment CLS-1

I. INTRODUCTION AND BACKGROUND

Q1. PLEASE STATE YOUR NAME, TITLE, AND BUSINESS ADDRESS.

A1. My name is Colleen Shutrump. I am employed as the Energy Resource Planning Advisor for the Office of the Ohio Consumers' Counsel ("OCC"). My business address is 65 East State Street, Suite 700, Columbus, Ohio 43215.

Q2. PLEASE BRIEFLY SUMMARIZE YOUR EDUCATION AND PROFESSIONAL EXPERIENCE.

A2. I have a Bachelor of Science in Business Administration from the Youngstown State University with a major in Management and a Master of Business Administration from Baldwin Wallace College with emphasis in International Business. I have worked over ten years in electric utility regulation with emphasis on customer-funded energy efficiency programs. I started as a Utility Analyst at the Indiana Utility Regulatory Commission in 2009. I was promoted to Senior Utility Analyst in 2015. While there, I attended the Institute of Public Utilities Michigan State University Advanced Regulatory Studies Program and Camp NARUC. I began work as an Energy Resource Planning Advisor with OCC in August 2015. In spring 2016, I completed a graduate-level course on Utility Regulation and Deregulation at the Ohio State University, John Glenn College of Public Affairs.

Q3. WHAT ARE YOUR DUTIES AT THE OHIO CONSUMERS' COUNSEL?

***A3*.** I provide analytical support on energy resource planning issues impacting Ohio consumers' interests. I serve as the Analytical Department's lead analyst and policy advisor for the OCC on cases and issues relating to resource planning issues such as customer-funded energy efficiency and demand side management programs. This includes, among other things, advocating for (i) consumer options to reduce their energy use and save money on their utility bills and (ii) developing agency policy that addresses consumer-protection issues. I was extensively involved in each of the 2016 electric energy efficiency portfolio cases of the four major Ohio electric utilities before the Public Utilities Commission of Ohio ("PUCO"). My involvement included providing testimony in the Dayton Power & Light[1] (Case No. 16-0649-EL-POR) and Duke Energy Ohio[2] (Case No. 16-0576-EL-POR) portfolio cases affecting consumers. I testified in the review of FirstEnergy's 2014-2018 DSM rider, Case No. 17-2277-EL-RDR, affecting lost revenue charges to consumers.[3] I also testified in Case No. 19-1940-GA-RDR (Columbia's Demand Side Management rider adjustment) and in Vectren's rate case, Case No. 18-0298-GE-AIR. I also participate in energy efficiency collaborative meetings for utility-led electric and gas programs.

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[1] *In re the Application of the Dayton Power and Light Company for Approval of its Energy Efficiency and Peak Demand Reduction Program Portfolio Plan for 2017 Through 2019*, Case No. 16-0649-EL-POR Direct testimony of Colleen Shutrump (January 30, 2017).

[2] *In re the Application of Duke Energy Ohio, Inc. for Approval of its Energy Efficiency and Peak Demand Reduction Portfolio of Programs*, Case No. 16-576-EL-POR Direct testimony of Colleen Shutrump (February 6, 2017).

[3] *In re the Matter of the 2018 Review of the Demand Side Management and Energy Efficiency Rider of Ohio Edison Company, The Cleveland Electric Illuminating Company, and The Toledo Edison Company*, Case No. 17-2277-EL-RDRDirect testimony of Colleen Shutrump (June 22, 2020).

Q4. ***WHAT IS THE PURPOSE OF YOUR TESTIMONY?***

A4. The purpose of my testimony is to address and support OCC's position protecting residential consumers as it relates to the Application for an Increase in Gas Rates ("Application") filed by Columbia Gas of Ohio ("Columbia"). I will explain and support OCC/NOPEC Objection Nos. 27, 28, 29, and 30 to the Staff Report related to Columbia's Demand Side Management ("DSM") proposal.[4]

Q5. ***DO YOU AGREE WITH ANY OF THE PUCO STAFF'S RECOMMENDATIONS REGARDING COLUMBIA'S DSM PROGRAM?***

A5. Yes, I agree with the PUCO Staff on two issues. First, the PUCO Staff properly recommended that Columbia's DSM shared savings (profit) proposal be denied. Shared savings increases the charge to consumers on top of what they pay for program and administrative costs. As the PUCO Staff recommended, Columbia should not be allowed to charge customers for profit on energy efficiency programs. Second, the PUCO Staff properly recommended the continuation of the WarmChoice® program and properly recommended the removal of $7.1 million in program funding from base rates. But additional consumer protections are needed for modifying Columbia's proposal.

[4] PUCO Case No. 21-0637-GA-AIR et al., Staff Report of Investigation (April 6, 2022), (Staff Report).

II. OCC/NOPEC OBJECTIONS TO STAFF REPORT

OCC/NOPEC Objections No. 27, 28, and 29.

Q6. DO YOU HAVE ANY CONCERNS ABOUT THE PUCO STAFF'S RECOMMENDATIONS FOR THE WARMCHOICE® PROGRAM?

A6. Yes. OCC/NOPEC object to the following issues being addressed in the Staff report.

1. The Staff Report should have recommended (but it did not) that consumer charges collected through the WarmChoice® rider should be subject to an annual PUCO Staff review and audit. Requiring an audit would be consistent with the PUCO's prior DSM orders. The PUCO issued orders in Columbia's Case No. 17-2374-GA-RDR (that ordered annual staff audits for DSM program expenditures in calendar years 2018 and 2019)[5] and Case No. 20-1712-GA-RDR (that approved customer charges subject to an audit of actual DSM program expenditures through December 2020),[6] and Case No. 21-1185-GA-RDR (that approved customer charges subject to an annual audit of actual DSM program expenditures through December 2021).[7]

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[5] *In re the Application of Columbia Gas of Ohio, Inc. For Approval of Adjustments to its IRP and DSM Rider Rates*, Pub. Util. Comm. No. 17-2374-GA-RDR Finding and Order, (April 25, 2018).

[6] *In re Application of Columbia Gas of Ohio, Inc. For Approval of Adjustments to its IRP and DSM Rider Rates,* Pub. Util. Comm. No. 20-1712-GA-RDR Finding and Order (April 21, 2021).

[7] *In re Application of Columbia Gas of Ohio, Inc. For Approval of Adjustments to its IRP and DSM Rider Rates*, Pub. Util. Comm. No. 21-1185-GA-RDR Finding and Order (April 20, 2022).

2. The Staff report should have recommended that Columbia provide a description and analysis of how WarmChoice® funds will be used in conjunction with the Federal Home Weatherization Assistance Program (HWAP) and any other programs that may contribute funds for low-income weatherization services.

Columbia's application proposes "coordination" with HWAP, but Columbia does not state an objective or explain how those funds will be used to maximize the number of homes weatherized.[8] And no explanation and accounting is provided as part of Columbia's stakeholder group meetings where they make the same claims--- that they "leverage" health and safety funding sources with the Ohio Department of Development Agency ("ODSA") and HWAP and the United States Department of Agriculture ("USDA") Rural Housing Trust Fund.[9] When utility consumer-funding is "coordinated" with other funding sources to weatherize homes, I recommend that Columbia's proposal provide a transparent accounting that shows how each funding source will be used to fund specific program expense categories. And I recommend that the objectives should be to 1) determine the minimum weatherization services necessary to help customers reduce their usage and 2) reduce the overall average cost per home so that utility consumer funding is spread across

[8] Application at 14.

[9] Columbia Gas of Ohio DSM Stakeholder Group Meeting, November 5, 2020.

more homes and more homes are weatherized than otherwise possible with just one funding source.

3. Utility consumer funding for the WarmChoice® program should be limited to low-income weatherization services that are targeted to reduce natural gas usage and reduce low-income consumers' natural gas bills.

4. The Staff Report should have recommended that certain expenses for WarmChoice® such as maintenance and repairs and other home improvement items for rental properties that would otherwise be the responsibility of the landlords should be excluded from WarmChoice® funding. In addition, certain expenses not directly related to weatherization or health and safety measures necessary to perform weatherization should be ineligible for WarmChoice® funding.

OCC/NOPEC Objection No. 30

Q7. WHAT ARE OCC/NOPEC OBJECTIONS TO THE STAFF REPORT RELATING TO COLUMBIA'S NON-LOW-INCOME DSM PROGRAMS?

A7. OCC/NOPEC have a number of objections to the PUCO Staff's proposed treatment of DSM programs for non-low-income consumers. The PUCO Staff recommends that the PUCO deny Columbia's requested increase for additional DSM program spending (adding 2 percent per year for a total of $189.7 million by 2027)[10] and recommends capping the annual amounts eligible for collection through Rider DSM at the 2022 levels, i.e., $35,643,682.[11] But the PUCO Staff did not go far enough to protect consumers. Columbia's non-low-income program should be denied. The PUCO Staff failed to evaluate whether Columbia's non-low-income DSM programs (and the subsidies that support them) proposed in its application are reasonable and in the public interest. And the PUCO Staff failed to (but it should) find that Columbia's non-low-income programs to be unjust and unreasonable.

I recommend that the PUCO deny Columbia's proposed non-low-income DSM program and the subsidies that would support them.

Q8. WHAT FACTORS SHOULD THE PUCO CONSIDER WHEN EVALUATING COLUMBIA'S DSM ENERGY EFFICIENCY) PROGRAMS AT CONSUMERS' EXPENSE?

A8. The PUCO is engaging stakeholders through the PUCO Energy Efficiency Workshops to determine, among other issues, whether it has the authority to approve natural gas DSM programs. But even if the PUCO decides it has such authority, there are no PUCO rules guiding the evaluation of the reasonableness of energy efficiency programs in Ohio. The PUCO Staff should have found that

[10] Application at 23, Table 3.

[11] Staff Report at 20.

Columbia's proposed non-low-income programs are unjust and unreasonable for the following reasons.

1. The PUCO Staff's recommendation is not consistent with their recent recommendation for Dominion Energy Ohio ("DEO"). In that case, the PUCO Staff appropriately recommended that the PUCO not approve Dominion's plan because the PUCO is conducting a series of workshops and is in the process of evaluating the role of energy efficiency.[12] OCC/NOPEC object to the PUCO Staff not evaluating whether Columbia's non-low-income DSM programs (and the subsidies that support them) are reasonable and should be approved given the current pause and review of energy efficiency programs for natural gas customers.

2. Most residential consumers are not participating in Columbia's energy efficiency programs yet pay a charge on their bill to subsidize the relatively few customers that do participate. From 2017-2020, the percentage of residential customers not participating, by program, are listed below.

[12] Staff Report at 4 (March 29, 2022) Case No. 21-1109-GA-ALT.

	Participating Customers[13]	**Percentage not Participating[14]**
Home Energy Audits	17,101	99%
Appliance Rebates	25,905	98%
Home Energy Efficiency Reports	641,077	52%
Product Rebates	77,596	94%
Home Energy Efficiency Checkup	27,535	98%

3. The PUCO should rely on the competitive marketplace, and not monopoly utilities and not their charges to consumers for the provision of natural gas energy efficiency services and products to consumers. One example of the marketplace that influences energy efficiency decisions absent utility programs is the Department of Energy's ENERGY STAR program. In 2019, the estimated annual market value of ENERGY STAR product sales is more than $100 billion.[15] And more than 90% of households recognized the Energy Star label. By choosing ENERGY STAR, a typical household can save about $450 on their energy bills. Requiring monopoly consumers to subsidize natural gas energy efficiency programs is unnecessary and unreasonable because the competitive market already provides that connection between energy efficiency products and the information

[13] Responses to OCC Interrogatories Set 11, Case No. 21-0637-GA-AIR, et al.

[14] Total residential customers (1,450,717) minus participating customers divided by total residential customers.

[15] Energy Star by the Numbers-2019, April 2020.

https://www.energystar.gov/sites/default/files/asset/document/2020_EPA_ES_Factsheet_ByTheNumbers_v4_KAB508c.pdf.

needed by consumers to make informed savings decisions. And decades of marketing the benefits of energy efficiency programs have resulted in much better information on energy efficiency programs and more consumer awareness. The market has transformed and utility involvement in offering programs is no longer needed.

4. Per OCC's Objection, Staff should have analyzed whether a Pay as you Save (PAYS®) program should be considered in Ohio, because this program does not involve consumers subsidizing these programs. Energy efficiency programs that help consumers reduce their energy usage and save money on their bill, without the reliance on consumer subsidies, should be considered or implemented to assist consumers with energy efficiency. The PAYS® program. Attached as CLS-1 is an explanation of the PAYS concept.[16]

[16] OCC Comments (January 28, 2022) PUCO Energy Efficiency Workshops https://puco.ohio.gov/utilities/electricity/resources/ee-workshops.

Q9. DOES THIS CONCLUDE YOUR TESTIMONY?

A9. Yes. However, I reserve the right to supplement my testimony if additional testimony is filed, or if new information or data in connection with this proceeding becomes available.

CERTIFICATE OF SERVICE

It is hereby certified that a true copy of the foregoing *Direct Testimony of Colleen Shutrump on Behalf of the Office of the Ohio Consumers' Counsel* has been served electronically this 13th day of May 2022.

/s/ Angela D. O'Brien
Angela D. O'Brien
Assistant Consumers' Counsel

The PUCO's e-filing system will electronically serve notice of the filing of this document on the following parties:

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PAYS® Questions for KCPL MEEIA

January 10, 2019

Q. An overview of PAYS® would be appreciated, how long in business, where it operates etc.?

- The Energy Efficiency Institute, Inc. (EEI) was incorporated in 1988 by Harlan Lachman and Paul A. Cillo. Each of them has 40 years of experience in the resource efficiency field, including program implementation, design, expert witness testimony, and management assistance.
- Work on the development of the PAYS® system started in 1998. The system was first presented in a NARUC commissioned paper in 1999.
- The New Hampshire Public Utilities Commission approved the first PAYS tariff in 2001.
- The first PAYS program was started by Public Service Company of New Hampshire, an IOU, now Eversource in 2002 and they are still running their program.
- A number of questions EEI was asked to address appear to make two assumptions:
    1. That PAYS is an entity, and
    2. That PAYS involves loans to individual customers.
- EEI wants to address both of these now very clearly:
    1. There is no PAYS entity. PAYS is a system developed by the Energy Efficiency Institute, and EEI holds the trademark to the name of that system: PAYS® and Pay As You Save®.
    2. PAYS does not involve loans to individuals. PAYS is a system that allows utilities to invest in efficiency upgrades on the customer side of the meter and recover their costs through a tariffed charge on the participant's bill. It does not involve consumer loans, no individual debt, and not credit checks.

Q. Is there a customer income level profile that PAYS® believes is most effective for targeting for achieving energy savings?

- No. The PAYS system has been designed for all customer classes and types of customers.
- It has been implemented at Investor Owned, Cooperative, and Municipal utilities, and by electric, gas and water utilities.
- Programs based on the PAYS system have been targeted to municipal customers and residential customers (both single family and multifamily).
- Participants in Arkansas and North Carolina live in some of the most economically distressed service territories in the country; other programs have primarily served middle-income to upper-income families.
- The most important criteria is that the customer have cost-effective savings opportunities.

- If I were a utility manager, I would probably run a residential program with funds allocated to multifamily homes where customers pay utility bills and single family customers (with some funds allocated to customers in economically distressed neighborhoods). The no-debt and immediate net savings features of PAYS are also especially attractive to customers managing public buildings and to industrial customers.

Q. Can and is the PAYS® model utilized by customers across multiple classes i.e. low income, middle income etc.? Please discuss any examples, experiences.

- Yes, No PAYS programs have been implemented with income criteria, although some marketing has been targeted to economically distressed neighborhoods and service territories.
- To be clear, PAYS has served all types of customers.

Q. Can and is PAYS® utilized by small businesses/small commercial customers?

- Yes.
- However, depending on your definition of small business/small commercial customers, this is the most challenging market to serve. Unlike all residential customers who live in homes, with some heating and often cooling systems, refrigeration, hot water, and televisions and computers, there are very different types of customers and usages often classified as small business/small commercial.
- For that reason, if I were starting a program, I would not start with small commercial customers.
- That said, in the second PAYS program implemented, a tiny program at a cooperative utility, the utility upgraded HVAC systems for customers operating a health club and retail stores.

Q. What types of energy saving purchases do customers make by availing themselves of PAYS®? (furnaces, insulation etc?)

- PAYS is a utility investment program in resource efficiency on the customers' side of the meter.
- Participants do not purchase items, they receive none of the benefits of ownership. They allow upgrades to be installed and allow the utility to recover its costs through a tariffed charge. The utility "owns" the upgrades through the cost recovery period. Ownership is transferred to the owner of the location when cost recovery is completed.
- Generally, any upgrade that is a proven technology, that produces a reliable savings stream that can pay for the upgrade and provide immediate net savings to the customer, can and has been installed.
- Upgrades installed in PAYS programs include, solar water heaters, street lighting, room lighting, water saving showerheads, toilets, insulation, air and duct sealing, dry summer drought tolerant landscaping, HVAC improvements, heat pump systems, and ground water source heat pumps.

- In 2004, EEI produced a study for Missouri showing more than 50 Industrial projects identified by Missouri's Industrial Assessment Center that would qualify as PAYS upgrades with an investment of $2 million dollars. All had less than three-year paybacks and had not been implemented. For any jurisdiction interested in economic development, offering PAYS to industrial customers would make a lot of sense.

Q. What efficiency projects remain or cannot be accomplished under the PAYS® model? Does PAYS® perform periodic evaluations of additional energy efficiency projects it may decide to finance?

- Projects with long paybacks (e.g., ten years or more such as new windows) cannot be accomplished using the PAYS system unless rebates are available to bring the payback down to approximately six years or less. Unproven technologies should not be included in a PAYS program because savings must be uncertain. To qualify, upgrades must produce immediate, reliable savings for the customer.
- Utilities or program operators who are using or considering using PAYS review new technologies and proven technologies all the time as installation costs, rates, and technologies change to determine whether they can produce sufficient reliable savings to qualify for installation. For example, this year there will be a study about qualifying rooftop solar photovoltaics and efforts to qualify electrification of buses using PAYS tariffs.

Q. How has credit worthiness criteria been established in other PAYS® programs/ jurisdictions? (ie.: a specific credit score/ reliance on specific credit agencies e.g.,. Experian, TransUnion, Equifax or other criteria (such as presented in PSC Rules 13.030(1)(C). etc.)

- No program based on the PAYS system has used credit scores or credit agency reports to determine customer eligibility. Some utilities require customers to be current in their utility billing, some require no more than 2 late payments in the preceding year, and some do not require any eligibility standard.
- One of PAYS requirements for residential programs is that on an annual basis, estimated savings to the participant must exceed program services charges by 25%. All customers currently have to pay their bills and risk disconnection if they fail to do so. It should be easier for all customers to pay lower bills.
- Without customer credit checks, uncollectables relating to PAYS upgrades across the country have averaged less than 0.1%. This is a fraction of utilities' typical rate of uncollectables for all other charges.

Q. How has credit worthiness been demonstrated ie: tools such as automated credit risk scoring conducted by the utility, other tools, mechanisms?

- I believe the answer I provided for the previous question addressed this question.

Q. Is underwriting a component in the PAYS ®model and if so how does it work? Who is responsible for defaulted PAYS® financing/loans?

- PAYS involves no loans to participating customers so there is no underwriting needed for PAYS transactions with customers. Customers at a location agree to allow their utility to invest in upgrades at that location and the tariffed program services charges are assigned to the location.

Q. What are the program costs? Is a flat fee or percent of loan charged? What interest rates are applied? Are the interest rates subject to being adjusted? Do participants sign 'Know Before You Owe' documentation?

- PAYS program services charges are fixed monthly amounts based on the upgrades installed at a location and are significantly less than a reliable estimate of customer savings for that specific location.
- Program costs vary and depend on the size and quality of the program. In EEI's response to Cadmus' PAYS (sic) feasibility study filed by the Office of the Consumer Counsel, EEI recommends one way to implement a PAYS program and provides a budget for planning purposes.
- If a utility borrows capital to use to pay the upfront costs for investments, it recovers its interest costs by rolling them into the program services charges. We have seen program services charges that include interest rates between zero and 7%.
- PAYS program costs are much less than on-bill financing (OBF) programs and unlike these loan programs PAYS programs can reach hard-to-reach customers (low- moderate-income customers and renters) and have much higher offer acceptance rates.
- Customers receive offers. Once the offer is made to the customer, the interest rate used to determine the program services charge cannot be changed. Interest rates can be changed during a program.
- EEI has developed and licenses agreements that provide clear statements to participants of program benefits and their responsibilities (and building owners' responsibilities if the customer does not own the building).
- EEI has developed a new system for providing notice of PAYS upgrades at a location that ensures successor customers who purchase or rent a location which had PAYS upgrades installed – learn of PAYS benefits and obligations prior to their taking occupancy.
- Utilities have no responsibility to provide notice and are not liable for a failure to provide notice of PAYS benefits and obligations at a location.

Q. Has on-bill financing typically been included on utility bills?

- On bill financing (OBF) has typically been defined as making loans to help customers purchase resource efficiency upgrades. By definition, OBF programs involve charges on the bill.
- PAYS does not involve loans to customers. PAYS uses a voluntary tariff. Program services charges are on the utility bills at a location at which PAYS upgrades were installed until the utility receives full cost recovery for its investments.

Q. What opportunities and challenges have arisen with integrating PAYS® into utility billing systems?

- One of the eighteen utilities implementing PAYS programs upgraded its billing and information system based on EEI's recommendations and those of its billing staff. The module cost less than $40,000.
- The seventeen other utilities used existing capabilities, likely those associated with rental or financed technologies, supplemented by program CRM software, and have operated their programs without making changes. EEI recommends any utility committing to the PAYS system investigate the real cost of an EEI approved billing system upgrade.

Q. How many utility clients does PAYS® serve and how many customers are served by PAYS®?

- As of June 30, 2019, eighteen utilities in eight states had operated programs using the PAYS system. The first program started in 2002. As of June 30, 2019, customers at more than 4,900 locations accepted offers for upgrade installations at their locations totaling more than $40 million.

Q. What are various utility and or PAYS® processes utilized to handle customer arrearages?

- Since PAYS charges must be treated the same as all other utility charges for essential services, the same processes the utility uses for other arrearages is used.
- Some utilities have established loss reserve funds. Uncollectables have averaged less than 0.1% for all reporting utilities operating PAYS programs. Only 1 charge against the three loss reserve funds in three states has been made in the past 5 years. EEI does not recommend incurring the cost of setting up reserve funds but that utilities use the same mechanisms they currently use to recover their investments.

Q. What are the 'ranges' of arrearage rates that PAYS® sees from its various utility partners/their customers? How are arrearages handled? Are they tied to service disconnection? What are the up and downsides of tying arrearages to service disconnection?

- Uncollectables related to PAYS upgrades are a fraction of all reporting utilities' average rate of uncollectables.

- Utilities implementing PAYS programs are required to use their same processes for collections of arrearages, including disconnection if necessary, as they currently use for all other charges.
- No utility implementing a PAYS program has ever reported disconnecting a PAYS participant or successor customer for non-payment.

Q. Have defaulted loans led to any evictions or foreclosures? If so, what data does PAYS® maintain and have in its possession on such occurrences?

- No. No defaulted tariffs have led to eviction or foreclosures.
- Some homes in California were subject to foreclosure for reasons other than the PAYS tariff as a result of the financial collapse in 2008 - 2009. The tariff is designed to survive foreclosure or extended vacancy.

Q. What data does PAYS® have regarding loans that have transferred ownership? Did transfers result in accelerations of early pay-offs? Does repayment transfer seamlessly to new customers? Please explain how loan transfers work between customers/households.

- There are no loans with the PAYS system.
- Tariffed charges remain at the location and are binding upon any successor customer taking service at a location.
- Some utilities have waived program services charges at times for customer service reasons. These do not represent a PAYS related expense.
- Based on anecdotal information, EEI has revised its intellectual property (i.e., the forms, agreements and worksheets alluded to above) to provide for tariffs that will not be subject to early pay-offs but that assure that all successor customers who purchase locations will learn about the PAYS upgrades at that location and the tariff's benefits and obligations.

Q. Has PAYS® had any complaints filed against it by ie: state attorney general offices, by consumer advocacy groups, utility commission staffs, Better Business Bureaus etc?

- No. There have been no complaints filed against an implementing utility in the 18 years programs have been operated.
- There have been no challenges to the PAYS system elements (i.e., that PAYS charges represent an essential utility service, that PAYS uncollectables shall be treated the same as all other essential utility charges, including disconnection in accordance with existing rules governing disconnection for non-payment, that charges may be assigned to a location and are binding on successor customers who apply for service at an upgraded location, etc.).

Q. Does PAYS® guarantee monthly savings greater than the monthly tariffed repayment? If not, how do low-income customers participate given that some months customers could receive higher bills.

- There are no savings guarantees.
- There is a guarantee that annual savings estimates for each specific location based on current rates will significantly exceed annual program services charges for that location. Most utilities use EEI's 80% rule. This ensures that solid annual savings estimates will exceed annual program services charges by 25% (i.e., providing a healthy margin of error).
- There is also a guarantee that if upgrades fail and are not repaired, program services charges will cease.
- This offer to customers has resulted in more than 50 percent, and sometimes as high as 90 percent, of customers accepting PAYS offers.

Q. If PAYS® projects under-perform' and the energy savings are not what was projected/ calculated what if anything occurs or what recourse does the customer/utility have?

- PAYS uses only proven technologies. Contractor requirements such as insurance and bonding, quality control mechanisms, mechanisms to ensure high quality upgrades and fair prices, along with other design features have kept under-performance from being a problem.
- Additionally, verification protocols alert implementing utilities to anomalies at PAYS locations that enable investigation prior to complaints. Most of the time, higher than anticipated usage results from increased occupancy. Other times higher than expected usage results from customer purchase and use of new energy using technologies.
- Finally, every implementing utility has reported increased customer satisfaction when they have switched to using the PAYS system.

Q. Who bears the burden of making repairs on PAYS® funded projects should they be required during the course of payback?

- If an upgrade fails as a result of contractor error, substandard products, or poor installation, even problems not identified by a post installation inspection, the contractor or product supplier is required to repair the upgrades.
- If the building owner fails to maintain upgrades as per their agreement or if occupants damage the upgrade, causing its failure, they will be made responsible for repairs and the program services charges will continue, assuring utility cost recovery.
- If the upgrade just failed, the utility or its program operator can determine if it is financially viable to pay for a repair and extend the charges (another required PAYS design feature) or to just terminate the charges.
- The use of proven technologies, high quality contractors and contractor requirements has resulted in no utility using the PAYS system reporting the need for upgrade repairs or to waive charges due to upgrade failure.