SOUTHERN ENVIRONMENTAL LAW CENTER

Telephone 205-745-3060

2829 2ND AVENUE SOUTH, SUITE 282
BIRMINGHAM, AL 35233-2838

Facsimile 205-745-3064

December 4, 2019

VIA E-FILE & OVERNIGHT MAIL

Mr. Walter L. Thomas, Jr., Secretary
Alabama Public Service Commission
RSA Union Building
100 North Union Street, Suite 950
Montgomery, AL 36104

RE: Alabama Power Company Petition for Certificate of Convenience and Necessity; Docket No. 32953

Dear Secretary Thomas:

On behalf of Intervenors Energy Alabama and Gasp, Inc., in Docket No. 32953, please find the enclosed, redacted and public version of the direct testimony of John Howat, an expert witness in this matter. This testimony, along with supporting evidence, is being filed in accordance with the Alabama Public Service Commission's October 9, 2019 Ruling Establishing Procedural Schedule and a subsequent procedural ruling, dated November 26, 2019, altering that schedule. The original and one copy of this public filing are being delivered to the Commission via overnight mail.

A confidential version, with all supporting information, is being sent via overnight mail to the Commission's Legal Division. Both versions will be served on counsel for Alabama Power Company, and a service copy of the public testimony will be served on parties on the service list in this matter.

Please contact me if you have any questions or concerns.

Sincerely,

Keith Johnston
Southern Environmental Law Center

Enclosures
KAJ

Public Version

BEFORE THE

ALABAMA PUBLIC SERVICE COMMISSION

MONTGOMERY, ALABAMA

IN RE:	)	
	)	
ALABAMA POWER COMPANY	)	Docket No. 32953
	)	
Petition for a Certificate of Convenience and Necessity	)	
	)	

DIRECT TESTIMONY OF

JOHN HOWAT

ON BEHALF OF

ENERGY ALABAMA AND GASP

DECEMBER 4, 2019

TABLE OF CONTENTS

EXHIBITS

Introduction

Q. PLEASE STATE YOUR NAME, JOB TITLE, EMPLOYER AND BUSINESS ADDRESS.

A. My name is John Howat. I am a Senior Policy Analyst at the National Consumer Law Center ("NCLC"), 7 Winthrop Square, Boston, Massachusetts 02110. The National Consumer Law Center is a non-profit law and policy advocacy organization using expertise in consumer law and energy policy to advance consumer justice, racial justice, and economic security for low-income families and individuals in the United States.

Q. PLEASE DESCRIBE YOUR PROFESSIONAL BACKGROUND AND EXPERIENCE.

A. Over the past twenty years at NCLC, I have managed a range of regulatory, legislative, and advocacy projects across the country in support of low-income consumers' access to utility and energy related services. I have been involved with the design and implementation of energy affordability and efficiency programs, regulatory consumer protections, transportation electrification, rate design, home energy improvement financing, issues related to metering and billing, credit scoring and reporting, and energy burden and demographic analysis.

I have presented testimony or comments before utility regulatory commissions in California, Idaho, Illinois, Indiana, Louisiana, Maryland, Massachusetts, Missouri, New Mexico, Nevada, North Carolina, Pennsylvania, Rhode Island, South Carolina, Texas, Vermont, Washington State, and Wisconsin. I have worked on behalf of community-based organizations or their associations in Arkansas, Arizona, California,

Idaho, Illinois, Indiana, Kansas, Louisiana, Massachusetts, Mississippi, Nevada, New Jersey, Pennsylvania, Rhode Island, Texas, Utah, Vermont, Washington, and Wisconsin. I have worked under contract on low-income energy and utility issues with the U.S. Department of Energy, U.S. Department of Health and Human Services, Oak Ridge National Laboratory, Lawrence Berkeley National Laboratory, AARP, the National Energy Assistance Directors' Association, Indiana Citizens Action Coalition, Office of the Attorney General in Nevada, Ohio Consumers' Counsel, Pennsylvania Office of Consumer Advocate, Maryland Office of People's Counsel, Office of the Attorney General in Illinois, the District of Columbia Office of Peoples Counsel, Southern Environmental Law Center, and Natural Resources Defense Council. I have presented at conferences of the National Community Action Foundation, the National Energy Assistance Directors' Association, the National Association of Regulatory Utility Commissioners, and the National Association of State Utility Consumer Advocates. I am co-author of Access to Utility Service, a law and policy manual published by National Consumer Law Center, and the 2016 Lawrence Berkeley National Laboratory reports, "Recovery of Utility Fixed Costs: Utility, Consumer, Environmental and Economist Perspectives."[1] And "The Future of Transportation Electrification: Utility, Industry and Consumer Perspectives."[2] I am primary author of "Home Energy Costs: The New Threat to Independent Living for the Nation's Low-Income Elderly,"[3] "Rethinking Prepaid Utility Service: Customers at Risk,"[4] "Tracking

[1] https://emp.lbl.gov/sites/all/files/lbnl-1005742_1.pdf
[2] https://emp.lbl.gov/publications/future-transportation-electrification
[3] Clearinghouse Review, Vol. 9 - 10, Jan - Feb 2008
[4] htttps://www.nclc.org/images/pdf/energy_utility_telecom/consumer_protection_and_regulatory_issues/report_prepaid_utility.pdf

the Home Energy Needs of Low-Income Households through Trend Data on Arrearages and Disconnections,"[5] and "Public Service Commission Consumer Protection Rules and Regulations: A Resource Guide."[6]

I have been professionally involved with energy program and policy issues since 1981. Prior to joining the Advocacy Staff at National Consumer Law Center, I consulted with a broad range of public and private entities on issues related to utility industry restructuring. Previously, I worked as Research Director of the Massachusetts Joint Legislative Committee on Energy, responsible for the development of new energy efficiency programs and low-income energy assistance budgetary matters; economist with the Electric Power Division of the Massachusetts Department of Public Utilities, responsible for analysis of electric industry restructuring proposals; and Director of the Association of Massachusetts Local Energy Officials. I have a Master's Degree from Tufts University's Graduate Department of Urban and Environmental Policy and a Bachelor of Arts Degree from The Evergreen State College.

My resume and table of testimony and comments are included as Exhibit JH-1.

Q. HAVE YOU TESTIFIED PREVIOUSLY BEFORE STATE PUBLIC UTILITIES COMMISSIONS?

A. I have presented testimony or comments before utility regulatory commissions in California, Idaho, Illinois, Indiana, Louisiana, Maryland, Massachusetts, Missouri, New Mexico, Nevada, North Carolina, Pennsylvania, Rhode Island, South Carolina, Texas, Vermont, Washington State, and Wisconsin.

[5] National Energy Assistance Directors' Association, 2004, http://www.neada.org/publications/Tracking_the_Need.pdf
[6] National Energy Assistance Directors' Association, 2006, http://www.neada.org/publications/Consumer_Protection_Guide.pdf

Q. ON WHOSE BEHALF ARE YOU TESTIFYING?

A. I am testifying on behalf of Energy Alabama and Gasp ("Intervenors").

Q. WHAT ARE THE PURPOSES OF YOUR TESTIMONY?

A. The purposes of my testimony are to demonstrate that (1) Alabama Power Company ("APC" or "Company") residential customers' electricity usage and bills are among the highest in the U.S.; (2) low-income Alabamians carry extraordinarily high home electricity burdens;[7] (3) the low-income poverty rate in Alabama is very high, resulting in excessive electricity burdens carried by a high proportion of the population; (4) high electric bills pose a threat to home energy security and bring harsh consequences to lower-income households in the East South Central Census Division, as demonstrated by U.S. Energy Information Administration Survey data; (5) APC's revenues per residential customer are higher than the statewide average of revenues per residential customer; (6) if approved, APC's proposal in the instant proceeding will raise residential customers' bills; (7) effective energy efficiency programming can reduce low-income electricity burdens and is a cornerstone of low-income home energy security; and (8) APC energy efficiency spending, measured as a percentage of revenues from sales, is much lower than the national average.

Q. PLEASE SUMMARIZE YOUR RECOMMENDATIONS.

A. I will recommend that the Commission

- Reject the Company's proposal in its entirety.

[7] "Electricity burden," as used herein, refers to the proportion of gross household income devoted to paying electricity bills.

- Order APC to conduct analysis of rate, bill, and resource need impacts stemming from annual investment in energy efficiency equivalent to 2.7% of the Company's revenues from sales.
- Require APC to continuously pursue all cost-effective efficiency and set program budgets and targets to incrementally displace costlier resources, and adopt cost-effectiveness testing that accounts for the many benefits delivered to utility customers and is not artificially weighted to disfavor energy efficiency.
- Direct the Company to, within six months of the Final Order in this proceeding, prepare, file with the Commission, and make available to the public monthly, in readily accessible spreadsheet format, the following data points by zip code:

  General Residential Customers

  - Number of Residential Accounts
  - Total Usage
  - Total Billed
  - Total Receipts
  - Number of Unpaid Accounts 60-90 Days after issuance of a bill
  - Dollar Value of Unpaid Accounts 60-90 Days after issuance of a bill
  - Number of Unpaid Accounts 90+ Days after issuance of a bill
  - Dollar Value of Unpaid Accounts 90+ Days after issuance of a bill
  - Total Number of Accounts Charged a Late Payment Fee
  - Total Dollar Value of Late Payment Fees Charged
  - Number of Accounts Referred to Collection Agencies

- Number of New Payment Agreements
- Number of New Budget Billing Plans
- Number of Accounts Sent Notice of Disconnection for Non-payment
- Number of Service Disconnections for Non-payment
- Number of Service Restorations after Disconnection for Non-payment
- Average Duration of Service Disconnection for Restored Accounts
- Number of Accounts Written Off as Uncollectible
- Dollar Value of Accounts Written Off as Uncollectible
- Dollar Value of Recovered Bad Debt

Low-Income Customers

- Number of Accounts
- Total Usage
- Total Billed
- Total Receipts
- Total Receipts Paid by LIHEAP
- Total Number of Customers Receiving LIHEAP
- Number of Unpaid Accounts 60-90 Days after issuance of a bill
- Dollar Value of Unpaid Accounts 60-90 Days after issuance of a bill
- Number of Unpaid Accounts 90+ Days after issuance of a bill
- Dollar Value of Unpaid Accounts 90+ Days after issuance of a bill
- Total Number of Unpaid Accounts
- Total Dollar Value of Unpaid Accounts

- Number of Accounts Referred to Collection Agencies
- Number of New Payment Agreements
- Number of New Budget Billing Plans
- Number of Accounts Sent Notice of Disconnection for Non-payment
- Number of Service Disconnections for Non-payment
- Number of Service Restorations after Disconnection for Non-payment
- Average Duration of Service Disconnection for Restored Accounts
- Number of Accounts Written Off as Uncollectible
- Dollar Value of Accounts Written Off as Uncollectible
- Dollar Value of Recovered Bad Debt

➢ Conduct a public technical session with APC and interested stakeholders during the design phase of the data collection and reporting protocol to ensure that resulting reports are of benefit to all parties.

Comparative Analysis of Alabama's Electric Utility Residential Customers, Revenues, and Sales, Home Electricity Burdens, and Poverty Rates with Those of Other States

Q. PLEASE DESCRIBE YOUR ANALYSIS.

A. Using data from The U.S. Department of Energy, Energy Information Administration's 2018 Form 861,[8] I ranked state residential electricity prices, usage per customer, and expenditure (revenue) per customer. In addition, using data from the

[8] Annual Electric Power Industry Report, Form EIA-861 Detailed Data Files, Released October 1, 2019. https://www.eia.gov/electricity/data/eia861/

U.S. Census Bureau's 2018 Current Population Survey,[9] I ranked state ratio of income to poverty rates at the 75% and 150% poverty levels. Finally, I calculated and ranked average home electricity burdens for households with annual gross income of $75,000, 150% of the federal poverty level ("FPL"), and 75% FPL.

A table reflecting these data points and calculations is included as Exhibit JH-2.

In addition, I reviewed Form 861 residential customer, sales and revenue data and calculated price per kilowatt-hour ('kWh"), sales per customer, and revenue per customer for each electric distribution utility in Alabama. I sorted the data by price (cent per kWh) to compare APC's with other electric utilities in the state.

Q. PLEASE DESCRIBE YOUR FINDINGS WITH RESPECT TO ALABAMA ELECTRIC UTILTY RESIDENTIAL USAGE, EXPENDITURES AND BURDENS.

A. The average 2018 residential electricity price in Alabama was $0.1218 per kWh, and ranked 25th among U.S. states and the District of Columbia. While the average statewide price was very close to the national median ($0.1224 per kWh), residential usage and expenditure per customer in Alabama were very high. In 2018, residential electricity usage ranked 48th among the 51 U.S. jurisdictions, and expenditures[10] ranked 49th. Thus, despite the relatively modest electricity price, the average electricity burden borne by Alabamans was extremely high, exceeded only by residential electricity customers in Hawaii and Connecticut.

[9] U.S. Census Bureau, Current Population Survey, Annual Social and Economic Supplement, 2018. https://www.census.gov/cps/data/cpstablecreator html#

[10] Expenditures are calculated by multiplying usage by price.

The high Alabama electricity usage and expenditures produced very high home electricity burdens—ranked 49th in the nation. The average electricity burden borne by an Alabama household with annual income of $75,000 was 2.4%, but a household living at 150% FPL carried a burden of 7.3%, fully three times higher than the burden of a household with a $75,000 annual income. For a very poor household living at 75% FPL, the average home electricity burden was a 14.6%, six times higher than that of a household with annual income of $75,000. For comparative purposes, the median nation *total* home energy burden was 3.4% in 2015. The national median home *electricity* burden was 2.5%.[11] Thus, assuming electricity burdens remained levels remained fairly constant between 2015 and 2018, an Alabama household living at 150% FPL carried an electricity burden nearly 3 times higher than the national average. For an Alabama household at 75% FPL, the electricity burden was nearly 6 times the national average.

Q. WHAT WERE YOUR FINDINGS WITH RESPECT TO POVERTY RATES IN ALABAMA?

A. On a gratifying note, poverty rates in Alabama have declined over recent years, perhaps signaling a positive and hopeful trend.[12] However, poverty in the state remains high. Based on calculations using the U.S. Census Bureau's 2018 Current Population Survey data, 24.4% of the state's population lived at or below 150% FPL, and 10.5% fell at or below 75% FPL. These rates ranked 44th among the 51 U.S. states

[11] U.S. Department of Energy, Energy Information Administration, 2015 Residential Energy Consumption Survey Microdata, https://www.eia.gov/consumption/residential/data/2015/index.php?view=microdata. Burden variables calculated by National Consumer Law Center.

[12] https://www.al.com/news/2017/09/alabama_poverty_rate_decreasin html

plus Washington D.C. For purposes of this testimony, the high poverty rates are important in that they indicate a high proportion of Alabamians shoulder an electricity burden that is unaffordable, posing a threat to the home energy security and well-being of these households. "Home energy security" is defined here as uninterrupted access necessary service without threat of disconnection or foregoing other necessities to pay for home energy bills, and while retaining healthy indoor temperatures.

Q. WHAT ARE SOME OF THE CONSEQUENSES OF HIGH ELECTRICITY BURDENS AND UNAFFORDABLE UTILITY BILLS?

A. The consequences of high home energy burdens can be profound. Many households experiencing home energy affordability challenges and high home energy burdens report receiving disconnection notices, keeping indoor temperatures at an unsafe level, or foregoing other necessities to pay for energy service. According to the U.S. Energy Information Administration, Residential Energy Consumption Survey ("RECS") 10.6% of households in the East South Central Census Division[13] reported receiving a service disconnection notice almost every month or some months in 2015, 9.1% reported keeping unhealthy indoor temperatures some months or almost every month, and 29.2% reported forgoing necessities to pay home energy bills some months or almost every month.[14] Frequencies of home energy security threats in the East South Central Census Division are included as Exhibit JH-3.

[13] Includes Kentucky, Tennessee, Mississippi, and Alabama. Census Division is the smallest geographical area to which analysis of RECS data may be applied.
[14] U.S. Department of Energy, Energy Information Administration, 2015 Residential Energy Consumption Survey Microdata, https://www.eia.gov/consumption/residential/data/2015/index.php?view=microdata

The data shows clearly that household struggling to stay connected to energy service can experience serious threats to security and well-being. This further illustrates that households with the lowest incomes and highest home electricity burdens experience home energy insecurity far more frequently than their higher income counterparts. For example, cross-tabulating the RECS service disconnection variable by the household income data shows that in the East South Central Census Division, 8.8% of households with income below $40,000 reported receiving a disconnection notice almost every month in 2015, compared with 0% by households with income of $60,000 or more.[15] Cross-tabulations of RECS home energy insecurity variables by household income are attached as Exhibit JH-4.

In addition to the high frequency of the home energy security threats discussed above, unaffordable bills can be costly for households struggling to make ends meet. Examples of added costs include late payment fees, collection charges, and in the event of service disconnection for non-payment, reconnection charges. As reflected in disconnection notice data, lower-income households are more likely to be late in making utility bill payments, and are therefore more likely to be subject to these fees, adding to the total cost of retaining access to basic, necessary electricity service. For APC residential customers, late payments are subject to a 1.5% fee, plus a $10 collection charge. In the case of a customer who is disconnected for nonpayment, a $50 reconnection charge is issued, except reconnection after hours, weekends or holidays, when the charge is $75.[16] I note that in 2018 APC reported collecting $9.9

[15] Id.
[16] APC Rules and Regulations for Electric Service, Appendix A, as approved by the Alabama Public Service Commission in Docket No. U-3170, Effective date: May 2, 2017.

million in late payment fees and charges, likely disproportionately burdening lower-income customers.[17] APC's 2018 FERC Form 1 Filing, page 300, is attached as Exhibit JH-5.

Q. DID INTERVENORS REQUEST APC DATA ON GENERAL RESIDENTIAL AND LOW INCOME RESIDENTIAL CUSTOMER BILLING, ARREARAGES BY VINTAGE, LATE PAYMENT CHARGES, AND DISCONNECTION FOR NONPAYMENT?

A. Yes. Intervenors requested these data points in IR-1-51 – IR-1-54. APC initially responded by objecting and providing no data, and subsequently supplementing with total number of residential accounts, total number and dollar value of residential unpaid accounts, disconnections for nonpayment (all customers), and disconnection notices (all customers). The lack of disaggregation of the data points provided severely limits the usefulness of the supplemental response. Additional recommendations with respect to regular, time series reporting of critical credit and collections data will be provided below.

Comparative Analysis of Alabama Power Company's Residential Customers, Revenues, and Sales with Those of Other Alabama Electric Utilities

Q. PLEASE DESCRIBE YOUR ANALYSIS.

A. Using data from The U.S. Department of Energy, Energy Information Administration's 2018 Form 861,[18] I reviewed Alabama electric utility residential customer counts, and ranked residential electricity prices, usage per customer, and revenue per customer.

[17] Alabama Power Company 2018 FERC Form 1 Filing, p. 300, line 16.
[18] Annual Electric Power Industry Report, Form EIA-861 Detailed Data Files, Released October 1, 2019. https://www.eia.gov/electricity/data/eia861/

Q. PLEASE DESCRIBE YOUR FINDINGS.

A. I found that 51 electric utilities serve Alabama residential customers and make an annual filing with the U. S. Energy Information Administration. Approximately 2.2 million residential customers are served by these utilities. APC serves about 1.3 million – or nearly 58% – of these customers.[19] I further found that in 2018 APC reported an average residential price of 12.81 cents/kWh, about 11.5% higher than the statewide median price of 11.49 Cents/kWh, or 11th highest in the state. Similarly, on a revenue (or expenditure) per customer basis, APC was ranked 10th highest in the state with an average annual expenditure of $1,873 per customer. The median expenditure among utilities statewide was $1,683. In sum, APC, the only investor-owned, franchised monopoly, utility operating in Alabama, serves a majority of residential electricity customers in Alabama, charges rates that are higher than 40 of the 51 utilities serving the state, and APC residential electricity customers use and spend more than the statewide median.

A table reflecting Alabama electric utility customer counts, sales, revenues and average price per kWh is attached as Exhibit JH-6.

Q. HOW DO YOUR FINDINGS WITH RESPECT TO APC'S RESIDENTIAL PRICE AND AVERAGE EXPENDITURES RELATE TO YOUR FINDINGS WITH RESPECT TO ALABAMA PRICES AND EXPENDITURES DESCRIBED IN THE PREVIOUS SECTION?

A. I found in the previous section that Alabamans experience electric service bills and burdens that are among the highest in the United States. The findings from this section – that APC residential customers pay more for electricity than the statewide

[19] APC is the only investor-owned utility operating in Alabama.

average – indicate that home electricity burdens for APC customers are even higher than those reflected in the comparative analysis of the states.

APC's Proposal in the Instant Proceeding and Impacts on Affordability

Q. WHAT INFORMATION HAS APC PROVIDED REGARDING RESIDENTIAL CUSTOMER BILL IMPACTS FROM ITS PROPOSAL IN THIS PROCEEDING?

A. The Company stated that it performed [redacted] APC further stated that the [redacted]

Q. PLEASE COMMENT ON THE PROSPECTIVE BILL IMPACT AS OUTLINED BY APC.

A. As an initial matter, it appears as though average sales per APC residential customer exceed the [redacted] In fact, according to the most recent EIA Form 861 filing, average sales per residential APC customer in 2018 was 14,626 kWh per year, or 1,219 kWh per month. Average residential usage in 2018 was nearly 22% greater than the usage level used by APC in its projected bill impacts. Thus, under the usage and sales levels reflected in the 2018 EIA Form 861 filing, average bill impacts under the two scenarios proposed by APC would be greater than those reflected in the Company's response to the interrogatory cited above.

[redacted]

Q. WILL THE RATE AND BILL IMPACTS ASSOCIATED WITH THE COMPANY'S PROPOSAL IN THE INSTANT PROCEEDING ADVERSELY AFFECT LOW-INCOME RESIDENTIAL CUSTOMERS?

A. Yes. As demonstrated above, publicly-available data clearly demonstrates that thousands of Alabama households already carry extremely high electricity burdens. These burdens are much higher than the national average and higher than even the Alabama average. Increasing rates and bills, as proposed by the Company, absent a significant increase in the efficiency of usage in low-income households, will exacerbate the electricity burden and home energy security challenges detailed previously in this testimony. Because APC's proposal, if approved, will increase residential customer bills, with particular impact on low-income households, I respectfully recommend that the Commission reject the Company's proposal in its entirety.

The Role of Effective Residential Energy Efficiency Programs

Q. DO YOU HAVE RECOMMENDATIONS ON WAYS TO MITIGATE THE IMPACTS OF HIGH ELECTRICITY BILLS AND BURDENS ON CUSTOMERS IN GENERAL AND LOW-INCOME CUSTOMERS IN PARTICULAR?

A. Yes. Low-income home energy security is dependent on the availability robust, effective energy-efficiency programs. Such programs not only generate substantial bill savings, they also improve comfort, safety and health. The high bills and expenditures of residential customers, as described above, may be reduced through more efficient usage of electricity.

The primary path to reasonable rates is for the utility to invest in least-cost resources, and greater energy efficiency is consistently found to be the preferred resource, when it is assessed fairly. At a minimum, the Commission should require APC to continuously pursue all cost-effective efficiency, and also should set program budgets and targets to incrementally displace costlier resources. The Commission should assure that cost-effectiveness accounts for the many benefits delivered to utility customers and is not artificially weighted to disfavor energy efficiency.

Q. IS THE COMPANY DOING ENOUGH TO DELIVER THE BENEFITS OF ENERGY EFFICIENCY TO ITS CUSTOMERS?

A. No. APC's energy-efficiency programs are limited and underfunded. Greater investment and program scope are needed to deliver the benefits of energy efficiency to APC's customers.

Q. WHAT IS THE APPROPRIATE FUNDING LEVEL OF APC'S ENERGY EFFICIENCY PORTFOLIO AND LOW-INCOME ENERGY EFFICIENCY PROGRAMMING IN PARTICULAR?

A. In 2015, the average energy efficiency spending among 51 major investor-owned utilities in the U.S., as a percentage of revenue, was 2.7%. During that year, APC spending on energy efficiency as a percentage of the Company's revenues was less than one-tenth of one percent.[22] APC energy efficiency spending even at the average level would thus vastly increase availability and benefit of the resource in the Company's service territory. Through, appropriate program design and allocation of

[22] Relf, et al., "2017 Utility Energy Efficiency Scorecard," American Council for an Energy Efficient Economy, June 2017, p. 20.

resources, APC investment in energy efficiency could be instrumental in reduction of low-income electricity bills and burdens.

I therefore recommend that the Commission reject the APC proposal in the instant proceeding, and order the company to conduct an analysis of rate, bill, and resource need impact stemming from annual investment in energy efficiency equivalent to 2.7% of the Company's revenues from sales.

Collection and Reporting of Time Series Data on Residential Arrearages, Disconnections, and Uncollectible Account Write-offs

Q. PLEASE DESCRIBE THE NEED FOR MONTHLY COLLECTION AND REPORTING OF INFORMATION REGARDING ARREARAGES, SERVICE DISCONNECTIONS AND OTHER DATA POINTS RELATED TO THE HOME ENERGY SECURITY OF RESIDENTIAL ELECTRICITY CONSUMERS.

A. As indicated above, Intervenors in this proceeding requested information from APC regarding credit, collections, and customer service to evaluate impacts of the Company's proposal on low-income and other residential customers. APC objected to this request and denied access to basic information as requested by Intervenors. Alabama regulators, policy-makers, consumers, and utility decision-makers are faced with difficult questions regarding resource investments and the effectiveness of programs and policies designed to ensure home energy security and regular payment for utility service. Questions regarding home energy security and the effectiveness of existing credit and collection practices can only be answered through data-driven analysis of trends in customer arrearages, service disconnections and related indicators of the magnitude of utility payment troubles.

APC's low-income residential customers face serious payment difficulties and risk of loss of essential home electricity service. Regular reporting of indicators of payment problems is required to assess on an ongoing basis the state of home energy security among APC's residential customers, and to evaluate the effectiveness of programs and policies intended to protect that security. Further, such data reporting is needed to assess the effectiveness of the credit and collection policies and practices of the Company, with an eye toward improving such practices when appropriate. Implementing a regular data collection and reporting protocol, in light of sweeping changes underway in energy and utility industry technology and economics – changes that have profound bearing on the energy security of the Company's most vulnerable customers – is particularly relevant and timely.

State regulators and consumer advocates have recognized the need for collection of trend data on arrearages, disconnections, and related points. In fact, just days ago the National Association of Regulatory Utility Commissioners ("NARUC")[23] and the National Association of State Utility Consumer Advocates ("NASUCA")[24] jointly adopted a resolution calling for the collection and reporting of this information.

Q. IS APC ADEQUATELY TRACKING AND PUBLICLY REPORTING DATA ON ARREARAGES, DISCONNECTIONS, AND RELATED POINTS?

[23] https://pubs.naruc.org/pub/9392BD1E-D055-4A2C-9677-AAD00FEA7527
[24] https://www.nasuca.org/nwp/wp-content/uploads/2018/11/2019-07-NASUCA-Data-Collection-Resolution-Joint-with-NARUC-Final.pdf

A. No. In a data request, Intervenors asked APC to provide time series data on the number of low-income[25] customer accounts, billing, receipts, unpaid accounts, payment agreements, disconnection notices, disconnections for nonpayment, and late payment charges. In response, the Company stated it would not provide the information requested.

Q. PLEASE SPECIFY THE DATA POINTS AND REPORTING PROTOCOL THAT ARE REQUIRED TO GAUGE THE STATE OF LOW-INCOME AND GENERAL RESIDENTIAL HOME ENERGY SECURITY IN THE APC SERVICE TERRITORY.

A. I recommend that the Commission direct the Company to, within six months of the Final Order in this proceeding, prepare, file with the Commission, and make available to the public monthly, in readily accessible spreadsheet format, the following data points by zip code:

General Residential Customers

- Number of Residential Accounts
- Total Usage
- Total Billed
- Total Receipts
- Number of Unpaid Accounts 60-90 Days after issuance of a bill
- Dollar Value of Unpaid Accounts 60-90 Days after issuance of a bill

[25] "Low-income" customers are defined as those who "participate in the Low Income Home Energy Assistance Program, the Weatherization Assistance Program, any ratepayer-funded bill payment assistance or arrearage management program, or any low-income, ratepayer-funded energy efficiency or DSM program. or any other means-tested energy assistance or efficiency program.

- Number of Unpaid Accounts 90+ Days after issuance of a bill
- Dollar Value of Unpaid Accounts 90+ Days after issuance of a bill
- Total Number of Accounts Charged a Late Payment Fee
- Total Dollar Value of Late Payment Fees Charged
- Number of Accounts Referred to Collection Agencies
- Number of New Payment Agreements
- Number of New Budget Billing Plans
- Number of Accounts Sent Notice of Disconnection for Non-payment
- Number of Service Disconnections for Non-payment
- Number of Service Restorations after Disconnection for Non-payment
- Average Duration of Service Disconnection for Restored Accounts
- Number of Accounts Written Off as Uncollectible
- Dollar Value of Accounts Written Off as Uncollectible
- Dollar Value of Recovered Bad Debt

Low-Income Customers

- Number of Accounts
- Total Usage
- Total Billed
- Total Receipts
- Total Receipts Paid by LIHEAP
- Total Number of Customers Receiving LIHEAP
- Number of Unpaid Accounts 60-90 Days after issuance of a bill

- Dollar Value of Unpaid Accounts 60-90 Days after issuance of a bill
- Number of Unpaid Accounts 90+ Days after issuance of a bill
- Dollar Value of Unpaid Accounts 90+ Days after issuance of a bill
- Total Number of Unpaid Accounts
- Total Dollar Value of Unpaid Accounts
- Number of Accounts Referred to Collection Agencies
- Number of New Payment Agreements
- Number of New Budget Billing Plans
- Number of Accounts Sent Notice of Disconnection for Non-payment
- Number of Service Disconnections for Non-payment
- Number of Service Restorations after Disconnection for Non-payment
- Average Duration of Service Disconnection for Restored Accounts
- Number of Accounts Written Off as Uncollectible
- Dollar Value of Accounts Written Off as Uncollectible
- Dollar Value of Recovered Bad Debt

I further recommend that Commission staff conduct a public technical session with APC and interested stakeholders during the design phase of the data collection and reporting protocol to ensure that resulting reports are of benefit to all parties.

Q. PLEASE PROVIDE EXAMPLES OF REPORTING FROM OTHER STATES THAT IS SIMILAR TO THE PROTOCOL AND DATA POINT SELECTION THAT YOU HAVE RECOMMENDED.

A. In Ohio, electric and natural gas utilities have long collected and reported monthly data on arrearages, disconnections, and payment plans for general residential

customers and those participating in the state's low-income Percentage of Income Payment Plan ("PIPP"). With respect to customers participating in the PIPP bill payment assistance program, Ohio utilities report monthly the number of accounts, billing and payment information, benefits from the PIPP, arrearage, and usage information. For all residential customers, Ohio utilities report number of accounts, service disconnections and reconnections, duration of disconnections, and information regarding payment plans and security deposits. Pursuant to the state's annual Winter Reconnection Order docket, companies file a separate report on customers having service restored or avoiding disconnection through that policy.

In Illinois, electric and natural gas utilities are required by rule to submit reports as required by the Commission. The Illinois rule states:

Not later than February 20 and May 20 of each year, each gas and electric utility which has former customers affected by this Section shall file a report with the Commission providing statistical data concerning numbers of disconnections and reconnections involving utility service and deposits, and data concerning the dollar amounts involved in such transactions. The Commission shall notify each gas and electric utility prior to August 1 of each year concerning the information which is to be included in the report for the following heating season (Section 8-207 of the Act).[26]

In Pennsylvania, the Public Utility Commission ("PA PUC") regulations[27] require that electric, natural gas, and steam heat utilities file—on a monthly basis—information regarding residential customer accounts. Monthly information includes

[26] Illinois Administrative Code § 280.180(h).
[27] Monthly reporting requirements can be found in 52 PA Code § 56.231. Annual reporting requirements can be found in 52 PA Code § 62.5 and § 54.75.

arrearages by heating and non-heating usage, and dollar value and vintages of residential accounts in arrears. In addition, Pennsylvania utilities provide monthly data on residential termination notices sent and personal contacts made with customers prior to termination. Companies also report on numbers of terminations completed by heating or non-heating usage, dollar value and vintage of arrears, and zip code. Reconnections are reported by usage type and by circumstances associated with reconnection (i.e., payment plan settlement between company and customer, presentation of a medical certificate, or through making payment in full). In addition to monthly data, Pennsylvania utilities are required to report on an annual basis on the number of residential payment arrangements entered into, annual collection expenses incurred, dollar value of residential uncollectible write-offs, numbers of residential customers in arrears but not in payment agreements, and total number of low-income households served. The PA PUC produces and publicizes a detailed annual report presenting by company the information gathered pursuant to provisions in the PA Code.

In Iowa, provisions in the Administrative Code require that investor-owned electric[28] and natural gas[29] utilities report residential customer statistics to the Iowa Utilities Board ("IUB") on a monthly basis. Since 1999, Iowa utilities have reported monthly the number of accounts, the number of accounts in arrears, dollar amounts in arrears, disconnection notices issued, number of disconnections, number of reconnections, and uncollectible accounts. Except for disconnection and reconnection

[28] Iowa Admin. Code 199-20.2(5)(j).
[29] Iowa Admin. Code 199-19.2(5)(j).

reporting, companies differentiate between general residential customers and those who have been deemed eligible for energy assistance benefits. The data collected by the IUB is available on the Board's website,[30] and are distributed to interested parties on a monthly basis.

Conclusions

Q. PLEASE SUMMARIZE YOUR FINDINGS.

A. My findings, as described above, include the following:

- The average 2018 residential electricity price in Alabama was $0.1218 per kWh, and ranked 25th among U.S. states and the District of Columbia.
- Alabama residential electricity usage ranked (lowest to highest) 48th among the 51 U.S. jurisdictions, and expenditures ranked 49th.
- Home electricity burdens ranked 49th in the nation (again, lowest to highest), with home electricity burdens higher only in Hawaii and Connecticut.
- 24.4% of Alabama households live at or below 150% FPL, and 10.5% live below 75% FPL.
- 10.6% of households in the East South Central Census Division reported receiving a utility service disconnection notice every month or some months in 2015, 9.1% reported keeping unhealthy indoor temperatures every month or some months, and 29% reported foregoing necessities nearly every month or some months to pay for home energy bills.

[30] https://iub.iowa.gov/moratorium-report

- 8.8% of East South Central households with annual income below $40,000 reported receiving a disconnection notice nearly every month.
- APC collected $9.9 million in late payment fees in 2018.
- APC serves about 58% of Alabama's residential customers, has residential rates that are 11th highest among 51 utilities operating in the state, and its customers use about 11% more electricity than the statewide median.
- Bill impacts associated with the APC proposal, absent increased energy efficiency investment, will increase energy costs and burdens, particularly for lower-income residential customers.
- An Alabama household living at 150% FPL carried an electricity burden of nearly three times higher than the national median home electricity burden, and an Alabama household living at 75% FPL carried a burden nearly 6 times higher than the national median.
- Increasing rates and bills, as proposed by the Company, and absent a significant increase in the efficiency of usage in low-income households, will exacerbate the electricity burden and home energy security challenges faced by APC's low-income customers.
- In 2015, the average energy efficiency spending among 51 major investor-owned utilities in the U.S., as a percentage of revenue, was 2.7%.
- In 2015, APC spending on energy efficiency as a percentage of the Company's revenues was less than one-tenth of one percent.
- Increased efficiency of usage can mitigate problems associated with high electricity usage and expenditures among APC customers.

- APC does not regularly report billing, credit and collections information needed for regulators and stakeholders to assess the state of utility customer home energy security or the effectiveness of ongoing credit and collection policies.

Q. PLEASE SUMMARIZE YOUR RECOMMENDATIONS.

A. My recommendations, based on the above findings, include the following:

- Reject the Company's proposal in its entirety.
- Order APC to conduct analysis of rate, bill, and resource need impacts stemming from annual investment in energy efficiency equivalent to 2.7% of the Company's revenues from sales.
- Require APC to continuously pursue all cost-effective efficiency and set program budgets and targets to incrementally displace costlier resources, and adopt cost-effectiveness testing that accounts for the many benefits delivered to utility customers and is not artificially weighted to disfavor energy efficiency.
- Direct the Company to, within six months of the Final Order in this proceeding, prepare, file with the Commission, and make available to the public monthly, in readily accessible spreadsheet format, the following data points by zip code:

  General Residential Customers

  - Number of Residential Accounts
  - Total Usage
  - Total Billed
  - Total Receipts
  - Number of Unpaid Accounts 60-90 Days after issuance of a bill

- Dollar Value of Unpaid Accounts 60-90 Days after issuance of a bill
- Number of Unpaid Accounts 90+ Days after issuance of a bill
- Dollar Value of Unpaid Accounts 90+ Days after issuance of a bill
- Total Number of Accounts Charged a Late Payment Fee
- Total Dollar Value of Late Payment Fees Charged
- Number of Accounts Referred to Collection Agencies
- Number of New Payment Agreements
- Number of New Budget Billing Plans
- Number of Accounts Sent Notice of Disconnection for Non-payment
- Number of Service Disconnections for Non-payment
- Number of Service Restorations after Disconnection for Non-payment
- Average Duration of Service Disconnection for Restored Accounts
- Number of Accounts Written Off as Uncollectible
- Dollar Value of Accounts Written Off as Uncollectible
- Dollar Value of Recovered Bad Debt

Low-Income Customers

- Number of Accounts
- Total Usage
- Total Billed
- Total Receipts
- Total Receipts Paid by LIHEAP
- Total Number of Customers Receiving LIHEAP

- Number of Unpaid Accounts 60-90 Days after issuance of a bill
- Dollar Value of Unpaid Accounts 60-90 Days after issuance of a bill
- Number of Unpaid Accounts 90+ Days after issuance of a bill
- Dollar Value of Unpaid Accounts 90+ Days after issuance of a bill
- Total Number of Unpaid Accounts
- Total Dollar Value of Unpaid Accounts
- Number of Accounts Referred to Collection Agencies
- Number of New Payment Agreements
- Number of New Budget Billing Plans
- Number of Accounts Sent Notice of Disconnection for Non-payment
- Number of Service Disconnections for Non-payment
- Number of Service Restorations after Disconnection for Non-payment
- Average Duration of Service Disconnection for Restored Accounts
- Number of Accounts Written Off as Uncollectible
- Dollar Value of Accounts Written Off as Uncollectible
- Dollar Value of Recovered Bad Debt

➢ Conduct a public technical session with APC and interested stakeholders during the design phase of the data collection and reporting protocol to ensure that resulting reports are of benefit to all parties.

Q. DOES THIS CONCLUDE YOUR TESTIMONY?

A. Yes.

BEFORE THE
ALABAMA PUBLIC SERVICE COMMISSION

In re: Petition for a Certificate of Convenience and Necessity by Alabama Power Company	)	**Docket No. 32953**

TESTIMONY OF JOHN HOWAT

State of Massachusetts)

County of Suffolk)

John Howat, being first duly sworn, deposes and says that he has read the foregoing prepared testimony and that the matters and things set forth therein are true and correct to the best of his knowledge, information and belief.

John Howat

ss: Suffolk Commonwealth of Massachusetts

Subscribed and sworn to before me
this 3rd day of December, 2019.

Notary Public

My commission expires: 12/24/21

NOTARY SEAL:

CERTIFICATE OF SERVICE

I certify that copies of the foregoing have been served on the following counsel and interested parties this the 4th day of December, 2019.

Dan H. McCrary
Scott B. Grover
Balch & Bingham, LLP
P.O. Box 306
Birmingham, AL 35201-0306
dmccrary@balch.com
sgrover@balch.com

Jennifer L. Howard
Baker, Donelson, Bearman, Caldwell
& Berkowitz, P.C.
1400 Wells Fargo Tower
420 20th Street North
Birmingham, AL 35203
jhoward@bakerdonelson.com

Conwell Hooper
Executive Director
American Senior Alliance
225 Peachtreet Street NE
Suite 1430 South Tower
Atlanta, GA 30303
conwellhooper@gmail.com

Patrick V. Cagle
President
Alabama Coal Association
2 Office Park Circle, Suite 200
Birmingham, AL 35223
patrick@alcoal.com

Joel E. Dillard
Baxley, Dillard, McKnight, James & McElroy
P.O. Box 530333
Birmingham, Alabama 35223-0333
jdillard@baxleydillard.com

Diana Csank
Julie Kaplan
Sierra Club
50 F Street NW, 8th Floor
Washington, DC 20001
diana.csank@sierraclub.org
julie.kaplan@sierraclub.org

Paul Griffin
Executive Director
Energy Fairness
P.O. Box 70072
Montgomery, AL 36107
paul@energyfairness.org

C. Richard Hill, Jr.
Capell & Howard, P.C.
P.O. Box 2069
Montgomery, AL 36102-2069
crh@chlaw.com

Olivia Martin
Tina Hammonds
Zack Wilson
Assistant Attorney General
Office Of The Attorney General
501 Washington Avenue
Montgomery, AL 36130
omartin@ago.state.al.us
thammonds@ago.state.al.us
zwilson@ago.state.al.us

George N. Clark
President
Manufacture Alabama
401 Adams Avenue, Suite 710
Montgomery, AL 36104
george@manufacturealabama.org

Attorney for Intervenors Energy Alabama and Gasp

Public Version

Direct Testimony of John Howat
Exhibit JH-1

JOHN G. HOWAT

PROFESSIONAL EXPERIENCE

Senior Energy Policy Analyst: National Consumer Law Center. 1999 - Present Boston, MA

- Advocate for enhanced low-income home energy security with particular focus on energy and utility economics, technologies and regulation
- Manage broad range of state and national low-income energy advocacy projects
- Provide expert testimony on low-income energy and utility issues before state regulatory agencies
- Support the enhancement of advocacy capacity of a national network of low-income program delivery and policy organizations through targeted advice and assistance, trainings, and maintenance of communications networks
- Track technology, economic, programmatic, regulatory and policy developments pertaining to low-income access to energy and utility service
- Provide state and federal legislative services on behalf of low-income advocates and clients
- Develop reports and publications; coordinate and present low-income energy advocacy perspectives at national energy conferences

Sole Proprietor: John Howat Associates. 1995 - 1999 Boston, MA

- Conducted market and economic analysis, analysis of customer energy consumption and load profiles, development of power supply requests for proposals, and analysis of utility rates, assets and power purchase contracts.
- Provided Legislative and Regulatory representation
- Provided communications planning and program implementation
- Registered Massachusetts Energy Broker

Resource Planning Economist: Massachusetts Department of Public Utilities. 1991 - 1995 Boston, MA

- Participated in adjudication and settlement proceedings pertaining to electric utility resource planning.
- Conducted technical analysis in conjunction with development of regulatory review policies.
- Prepared and conducted discovery and cross examinations of witnesses.
- Drafted Orders, Decisions, and internal communications.
- Acted as liaison to various public and private sector organizations.

Massachusetts State Legislature. 1985 - 1991 Boston, MA

Research Director: Joint Committee on Energy. 1991

- Directed all committee legislative activities.
- Hired, trained and supervised research and support staffs.
- Conducted legal research and quantitative analysis leading to development of new legislation.
- Worked with Committee Chairmen, rank and file legislators, lobbyists, members of the public and the press.

Legislative Director: State Senator Sal Albano. 1988 - 1990

- Coordinated all legislative and budgetary activities for Senate Chairman of the Joint Committees on Education and Public Safety, including drafting of legislation, amendments and budgetary proposals, and supervision of legislative aides and interns.
- Advised the Senator on policies and programs related to education, health care, human services, housing, the environment, public safety, and taxation.
- Coordinated public relations, including drafting of press releases and answering press inquiries.
- Developed a legislative tracking system.
- Wrote briefing materials for debates and public presentations.

jhowat@nclc.org
617-542-8010

Senior Legislative Research Analyst: Joint Committee on Energy. 1985 - 1988

- Conducted research and analysis of legislation before the committee.
- Drafted new legislation relative to energy efficiency programs and policies, non-utility generation, low-income energy programs, utility rates, municipal utilities, and the "Bottle Law."

Executive Director: Association of Massachusetts Local Energy Officials. 1982 - 1985 Boston, MA

- Promoted, monitored and evaluated four statewide institutional energy conservation programs as a consultant to the Mass. Municipal Assn. and the Mass. Executive Office of Energy Resources.
- Wrote and negotiated grant proposals.
- Conducted member recruitment, fund raising and financial management.
- Produced, edited and contributed to quarterly newsletters distributed statewide.
- Organized workshops and conferences for public sector energy managers.

Teaching Assistant: Tufts University Graduate Department of Urban and Environmental Policy.
1983 - 1984 Medford, MA

- Conducted graduate workshops in financial analysis and management of local governments and non-profit organizations.
- Subject matter included cash flow, net present value, internal rate of return, business planning and benefit/cost analyses with emphasis on externalities and non-quantitative values.

Legislative Aide: Washington State Senator King Lysen. 1981 - 1982 Olympia, WA

- Conducted inquiry into energy consumption, rate structures and taxation of Direct Service Industrial customers of energy suppliers and brokers in the Pacific Northwest.
- Coordinated media relations and production of constituent newsletters.

County Coordinator/Research Analyst: "Don't Bankrupt Washington" Campaign. 1981 Olympia, WA

- Conducted analysis of economic impacts to electric utility ratepayers caused by cost overruns on five Washington Public Power Supply System nuclear power plants.
- Served as Thurston County Coordinator of the organization that sponsored Initiative Measure No. 394, requiring voter approval for bonding of public energy facilities.
- Conducted fund raising activities, coordinated the efforts of 30 volunteers, and waged an effective voter turnout campaign.

EDUCATION

Master of Urban and Environmental Policy. Tufts University. Graduate Department of Urban and Environmental Policy. Medford, Massachusetts. January, 1984.

Areas of Study: Community Energy Planning, Energy Economics, Housing Policy, Community Economic Development, Communications Methods, Financial Analysis and Management, Research Methods, Statistical Analysis, and various computer applications.

Bachelor of Arts. The Evergreen State College. Olympia, Washington. June, 1981.

Areas of Study: Economics, Political Science, American and European History.

jhowat@nclc.org
617-542-8010

John Howat Regulatory Commission Testimony and Comment Experience

Case Name/Docket	Client	Topic	Jurisdiction	Date
Cause No. 45253	Indiana Citizens Action Coalition, Indiana Community Action Association, Environmental Working Group	Low-income affordability program, credit and collections data reporting	Indiana	Oct-19
D.P.U. 18-150	Massachusetts Energy Directors Association	Direct Testimony - Transportation Electrification, Rate Design	Massachusetts	Mar-19
Docket No. 2018-318-E - Duke Energy Progress	Southern Environmental Law Center, NAACP, South Carolina Coastal Conservation League	Direct Testimony - Rate design, low-income energy efficiency and affordability programs	South Carolina	Mar-19
Docket No. 2018-319-E	Southern Environmental Law Center, SC NAACP, SC Costal Conservation League, Upstate Forever	Direct Testimony - Rate design, credit and collections data, low-income energy efficiency	South Carolina	Feb-19
Cause No. 45159 - Northern Indiana Public Service Company	Citizens Action Coalition of Indiana	Direct Testimony - Rate design, low-income affordability program, credit and collections data reporting	Indiana	Feb-19
Docket No. 18-1008/1009 - Ameren Illinois Company	Illinois Attorney General's Office	Rebuttal Testimony - Prepaid utility service	Illinois	Nov-18
D.P.U. 18-40 - The Berkshire Gas Company	Massachusetts Low-Income Weatherization and Fuel Assistance Program Network and the Massachusetts Energy Directors Association	Direct Testimony - General rate case, low-income discount rate	Massachusetts	Sep-18
Docket No. 18-1008/1009 - Ameren Illinois Company	Illinois Attorney General's Office	Direct Testimony - Prepaid utility service	Illinois	Sep-18
Case No. 18-00043-UT - Public Service Company of New Mexico	New Mexico Coalition for Clean Affordable Energy	Direct Testimony - Rate design	New Mexico	Aug-18
D.P.U. 18-45 - Bay State Gas Company d/b/a Columbia Gas of Massachusetts	Massachusetts Low-Income Weatherization and Fuel Assistance Program Network and the Massachusetts Energy Directors Association	Direct Testimony - General rate case, low-income discount rate	Massachusetts	Aug-18
Cause No. 45029 - Indianapolis Power &	Citizens Action Coalition of Indiana, Indiana Coalition for Human Services,	Direct Testimony - Rate design	Indiana	May-18

Light Company	Indiana Community Action Association, Sierra Club			
D.P.U. 17-170 - Boston Gas Company, Colonial Gas Company, each d/b/a National Grid	Massachusetts Low-Income Weatherization and Fuel Assistance Program Network and the Massachusetts Energy Directors Association	Direct Testimony - General rate case, low-income discount rate	Massachusetts	Mar-18
Docket No. 17-0837 - Commonwealth Edison Company	Illinois Attorney General's Office	Direct Testimony - Prepaid utility service	Illinois	Mar-18
Docket No. E-7, Sub 1146 - Duke Energy Carolinas	Southern Environmental Law Center, North Carolina Justice Center, North Carolina Housing Coalition, Natural Resources Defense Council, and Southern Alliance for Clean Energy	Direct Testimony - General rate case, rate design, affordable payment program	North Carolina	Jan-18
Cause No. 44967 - Indiana Michigan Power Company	Citizens Action Coalition of Indiana, Indiana Coalition for Human Services, Indiana Community Action Association, Sierra Club	Direct Testimony - Rate design, affordable payment program	Indiana	Nov-17
Docket No. E-2, Sub 1142 - Duke Energy Progress	Southern Environmental Law Center, North Carolina Justice Center, North Carolina Housing Coalition, Natural Resources Defense Council, and Southern Alliance for Clean Energy	Direct Testimony - General rate case, rate design, affordable payment program	North Carolina	Oct-17
Docket No. P-2016-2572033 - RECO Energy Company's plan for an advanced payments program and petition for waiver of a portion of the Commission's regulations	Pennsylvania Office of Consumer Advocate	Surrebuttal Testimony - Prepaid utility service	Pennsylvania	Aug-17

jhowat@nclc.org
617-542-8010

Docket No. P-2016-2572033 - RECO Energy Company's plan for an advanced payments program and petition for waiver of a portion of the Commission's regulations	Pennsylvania Office of Consumer Advocate	Rebuttal Testimony - Prepaid utility service	Pennsylvania	Jul-17
Docket No. P-2016-2572033 - RECO Energy Company's plan for an advanced payments program and petition for waiver of a portion of the Commission's regulations	Pennsylvania Office of Consumer Advocate	Direct Testimony - Prepaid utility service	Pennsylvania	Jun-17
D.P.U 15-155 - Massachusetts Electric Company, Nantucket Electric Company, each d/b/a National Grid	Massachusetts Low-Income Weatherization and Fuel Assistance Program Network	Direct Testimony - low-income discount rate, rate design, net energy metering and solar renewable energy credits	Massachusetts	Mar-16
Case No. 15-00261-UT - Public Service Company of New Mexico	New Mexico Coalition for Clean Affordable Energy	Direct Testimony - Rate design, affordable payment program, credit and collections data collection and reporting	New Mexico	Jan-16
Cause No. 44688 - Northern Indiana Public Service Company	Citizens Actions Coalition of Indiana and the Environmental Law & Policy Center	Direct Testimony - General rate case - rate design, affordability program, credit and collections data reporting	Indiana	Jan-16
6690-UR-124 - Wisconsin Public Service Corporation	Wisconsin Community Action Program Association	Comment - Rate design	Wisconsin	Oct-15
Cause No. 44576 - Indianapolis Power and Light Company	Citizens Actions Coalition of Indiana, Indiana Association for Community and Economic Development, Indiana Coalition of Human Services, Indiana	Direct Testimony - energy affordability program, rate design	Indiana	Jul-15

jhowat@nclc.org
617-542-8010

	Community Action Association, Indiana NAACP, and National Association of Social Workers Indiana Chapter			
05-UR-107 - Wisconsin Electric Power Company and Wisconsin Gas Company	Wisconsin Community Action Program Association	Comment - Rate design	Wisconsin	Oct-14
3270-UR-120 - Madison Gas and Electric Company	Wisconsin Community Action Program Association	Comment - Rate design	Wisconsin	Oct-14
6690-UR-123 - Wisconsin Public Service Corporation	Wisconsin Community Action Program Association	Comment - Rate design	Wisconsin	Sep-14
Docket 14-05004 - Nevada Energy Company	Nevada Bureau of Consumer Protection	Direct Testimony - Prepaid utility service	Nevada	Aug-14
D.P.U. 14-04 - Investigation into time-varying rates	NCLC's low-income clients	Comment - Rate design, regulatory consumer protections	Massachusetts	Mar-14
Docket No. 4450 - Rules and regulations governing the termination of residential electric and natural gas service	George Wiley Center	Comment - Regulatory consumer protections	Rhode Island	Dec-13
Application 11-10-002 - San Diego Gas and Electric Company For Authority To Update Marginal Costs, Cost Allocation, And Electric Rate Design	National Consumer Law Center's low-income clients, The Utility Reform Network, Center for Accessible Technology, Greenlining Institute	Direct Testimony - Prepaid utility service	California	Jun-12

jhowat@nclc.org
617-542-8010

Rulemaking 09-11-014 - Rulemaking to Examine the Commission's Post-2008 Energy Efficiency Policies, Programs, Evaluation, Measurement, and Verification, and Related Issues	NCLC's low-income clients	Comment - Energy efficiency financing	California	Feb-12
Rulemaking 09-11-014 - Rulemaking to Examine the Commission's Post-2008 Energy Efficiency Policies, Programs, Evaluation, Measurement, and Verification, and Related Issues	NCLC's low-income clients	Reply Comment - Energy efficiency financing	California	Feb-12
Docket Nos. UE-111048 and UG-111049 - Puget Sound Energy	The Opportunity Council	Direct Testimony - Bill payment assistance, home energy affordability	Washington	Dec-11
R-10-02-005 - Rulemaking to address the issue of customers' electric and natural gas service disconnection	NCLC's low-income clients	Comments - Regulatory consumer protections	California	Sep-10
Docket No. 7535 - Petition of AARP for the establishment of reduced rates for low-income consumers of Green Mountain Power Corporation and Central	AARP Vermont	Rebuttal Testimony - Bill payment assistance	Vermont	Jun-10

jhowat@nclc.org
617-542-8010

Vermont Public Service Corporation; and as expanded to possibly include general applicability to all Vermont retail electric utilities				
Docket 10-02009 - Nevada Energy	Washoe County Senior Law Project	Direct Testimony - Advanced meter consumer protections	Nevada	Apr-10
R-10-02-005 - Rulemaking to address the issue of customers' electric and natural gas service disconnection	NCLC's low-income clients	Opening Comment - Regulatory consumer protections	California	Mar-10
Docket No. 06-0703 - Rulemaking IL Admin. Code - Part 280	South Austin Community Council and Community Action for Fair Utility Practice	Direct Testimony - Regulatory consumer protections	Illinois	Jan-10
Project No. 35533	NCLC's low-income clients	Comment - Prepaid utility service	Texas	Jan-10
Docket No. 7535 - Petition of AARP for the establishment of reduced rates for low-income consumers of Green Mountain Power Corporation and Central Vermont Public Service Corporation; and as expanded to possibly include general applicability to all Vermont retail electric utilities	AARP Vermont	Direct Testimony - Bill payment assistance	Vermont	Sep-09

jhowat@nclc.org
617-542-8010

Cause No. 43669 - Citizens Gas, Northern Indiana Public Service Company, and Vectren Energy Delivery	AARP and Citizens Action Coalition	Direct Testimony - Bill payment assistance, home energy affordability	Indiana	Sep-09
D.P.U. 09-34 - Western Massachusetts Electric Company	Low Income Weatherization and Fuel Assistance Network	Comment - Prepaid utility service	Massachusetts	Jun-09
Case No. ER-2008-0318 - Ameren UE	AARP	Surrebuttal Testimony - Hot weather safety program	Missouri	Nov-08
Case No. ER-2008-0318 - Ameren UE	AARP	Direct Testimony - Hot weather safety program	Missouri	Aug-08
D.T.E./D.P.U. 07-30 - Petition of the Attorney General for an Oversight Investigation of the Proposed Merger of National Grid and Keyspan	Low-Income Weatherization and Fuel Assistance Program Network and Massachusetts Energy Directors Association	Supplemental Direct Testimony - Customer service and regulatory consumer protections	Massachusetts	Nov-07
D.T.E./D.P.U. 07-30 - Petition of the Attorney General for an Oversight Investigation of the Proposed Merger of National Grid and Keyspan	Low-Income Weatherization and Fuel Assistance Program Network and Massachusetts Energy Directors Association	Direct Testimony - Customer service and regulatory consumer protections	Massachusetts	Nov-07
CASE NO. PAC- 07-5 - Rocky Mountain Power	Community Action Partnership of Idaho	Direct Testimony - Collection agency costs, credit and collection rules	Idaho	Sep-07

jhowat@nclc.org
617-542-8010

Docket No. P- 00062240 - Equitable Gas company for Approval to Increase the Level of Funding for its Customer Assistance Program and to Implement an Adjustable Rate Mechanism to Recover Associated Expenses Concerning Universal Service and Energy Conservation Plan Costs	Pennsylvania Utility Law Project	Surrebuttal Testimony - Low Income affordability programs	Pennsylvania	May-07
Docket No. P- 00062240 - Equitable Gas company for Approval to Increase the Level of Funding for its Customer Assistance Program and to Implement an Adjustable Rate Mechanism to Recover Associated Expenses Concerning Universal Service and Energy Conservation Plan Costs	Pennsylvania Utility Law Project	Rebuttal Testimony - Low Income affordability programs	Pennsylvania	May-07
Docket No. P- 00062240 - Equitable Gas company for Approval to Increase the Level of Funding for its Customer Assistance Program and to Implement an Adjustable Rate Mechanism to Recover Associated Expenses	Pennsylvania Utility Law Project	Direct Testimony - Low Income affordability programs	Pennsylvania	Apr-07

jhowat@nclc.org
617-542-8010

Concerning Universal Service and Energy Conservation Plan Costs				
Project No. 33814 - Rulemaking concerning prepaid retail electric service	AARP	Reply Comment - Prepaid electric service	Texas	Mar-07
Docket No. D-06-13 - Petition of Narragansett Electric Company and Southern Union Gas Company for Purchase and Sale of Assets	George Wiley Center	Direct Testimony - Merger impact mitigation	Rhode Island	Jun-06
Docket No. 06-0202 - Petition to Initiate Rulemaking with Notice and Comment for Approval of Certain Amendments to Illinois Administrative Code Part 280	South Austin Community Council and Community Action for Fair Utility Practice	Direct Testimony - Regulatory consumer protections	Illinois	Apr-06
Docket No. 3696 - New England Gas Company	George Wiley Center	Direct Testimony - General rate case - mitigation of low-income rate and bill impacts	Rhode Island	Oct-05
Docket 05-0237 - Petition to Initiate Rulemaking with Notice and Comment for Approval of Certain Amendments to Illinois	South Austin Community Council and Community Action for Fair Utility Practice	Direct Testimony - Regulatory consumer protections	Illinois	Jun-05

jhowat@nclc.org
617-542-8010

Administrative Code Part 280				
Docket No. 04-5003 - Nevada Power Company	Nevada Bureau of Consumer Protection	Direct Testimony - Prepaid utility service	Nevada	Jun-04
Docket No. R-00049255 - PPL Universal Service Programs	Commission on Economic Opportunity	Direct Testimony - Universal service programs	Pennsylvania	Jun-04
Docket No. UD-97-5 - Entergy New Orleans' and Entergy Louisiana's Electric and Natural Gas Service Regulations, Policies and Standards	Alliance for Affordable Energy, Louisiana Environmental Action Network, League of Women Voters of New Orleans, Pax Christi, and Bread for the World	Direct Testimony - Regulatory consumer protections	New Orleans City Council	Jul-00

jhowat@nclc.org
617-542-8010

Public Version

Direct Testimony of John Howat
Exhibit JH-2

See File "Exh. JH-2 2018 Electricity Sales Revenues Customers Price and Poverty by State"

State Rankings: Residential Electricity Price, Usage, and Expenditure, Plus Poverty and Home Electricity Burden by State

State	2018 Retail Sales (kWh x 1,000,000)	2018 Revenue from Sales ($ x 1,000,000)	2018 Number of Residential Customers	2018 Residential Price per kWh		2018 Usage per Residential Cusomter (kWh)		2018 Electricity Expenditure per Customer		2018 Population </= 150% Federal Poverty			2018 Population </= 75% Federal Poverty			Home Electricity Burden (2-person household) by Selected Income Levels			
				Price	*Rank*	*Usage*	*Rank*	*Expenditure*	*Rank*	*#*	*%*	*Rank*	*#*	*%*	*Rank*	*$75000/yr*	*150% FPG*	*75% FPG*	*Rank*
Alabama	33,080	4,028	2,229,470	$0.1218	25	14,838	48	$1,807	49	1,176,702	24.4%	44	505,966	10.5%	44	2.4%	7.3%	14.6%	49
Alaska	1,975	433	287,523	$0.2192	50	6,869	5	$1,506	36	159,619	22.3%	38	69,498	9.7%	37	2.0%	6.1%	12.2%	36
Arizona	34,660	4,425	2,808,351	$0.1277	33	12,342	34	$1,576	42	1,499,870	21.4%	32	636,984	9.1%	32	2.1%	6.4%	12.8%	42
Arkansas	19,259	1,889	1,388,359	$0.0981	3	13,872	43	$1,361	22	769,850	26.4%	47	303,362	10.4%	43	1.8%	5.5%	11.0%	22
California	89,100	16,782	13,591,149	$0.1884	45	6,556	2	$1,235	14	8,630,239	22.1%	36	3,243,243	8.3%	26	1.6%	5.0%	10.0%	14
Colorado	19,287	2,343	2,326,974	$0.1215	24	8,288	13	$1,007	3	927,871	16.8%	11	310,796	5.6%	3	1.3%	4.1%	8.2%	3
Connecticut	13,061	2,769	1,503,701	$0.2120	48	8,686	15	$1,841	50	594,277	16.7%	8	276,667	7.8%	22	2.5%	7.5%	14.9%	50
Delaware	5,070	635	432,449	$0.1252	29	11,724	30	$1,468	30	166,364	17.3%	12	71,352	7.4%	16	2.0%	5.9%	11.9%	30
District Of Columbia	2,592	333	274,613	$0.1285	34	9,439	19	$1,213	13	149,215	21.6%	33	72,730	10.5%	45	1.6%	4.9%	9.8%	13
Florida	125,528	14,485	9,423,019	$0.1154	20	13,321	36	$1,537	39	4,750,277	22.7%	40	2,026,253	9.7%	38	2.0%	6.2%	12.5%	39
Georgia	59,689	6,847	4,354,020	$0.1147	19	13,709	42	$1,573	40	2,508,040	24.5%	45	982,450	9.6%	36	2.1%	6.4%	12.7%	40
Hawaii	2,711	880	436,266	$0.3246	51	6,214	1	$2,017	51	248,801	17.8%	15	97,670	7.0%	11	2.7%	8.2%	16.3%	51
Idaho	8,428	855	743,564	$0.1014	4	11,335	27	$1,150	8	336,035	19.4%	22	130,565	7.6%	20	1.5%	4.7%	9.3%	8
Illinois	47,226	6,029	5,289,571	$0.1277	32	8,928	17	$1,140	7	2,235,029	17.7%	13	971,362	7.7%	21	1.5%	4.6%	9.2%	7
Indiana	34,575	4,240	2,863,350	$0.1226	27	12,075	32	$1,481	32	1,247,275	19.0%	20	579,868	8.8%	29	2.0%	6.0%	12.0%	32
Iowa	14,840	1,817	1,385,752	$0.1224	26	10,709	23	$1,311	19	480,350	15.8%	5	187,688	6.2%	5	1.7%	5.3%	10.6%	19
Kansas	14,187	1,894	1,266,041	$0.1335	37	11,206	26	$1,496	34	626,658	21.9%	34	286,744	10.0%	41	2.0%	6.1%	12.1%	34
Kentucky	27,713	2,936	1,980,206	$0.1059	8	13,995	46	$1,483	33	1,028,208	23.4%	41	399,428	9.1%	33	2.0%	6.0%	12.0%	33
Louisiana	32,066	3,074	2,085,054	$0.0959	1	15,379	50	$1,474	31	1,444,551	31.9%	51	675,376	14.9%	51	2.0%	6.0%	11.9%	31
Maine	4,872	821	709,849	$0.1685	42	6,863	4	$1,157	9	273,509	20.8%	30	98,151	7.5%	18	1.5%	4.7%	9.4%	9
Maryland	28,138	3,742	2,332,516	$0.1330	36	12,063	31	$1,604	44	891,200	14.9%	2	334,755	5.6%	4	2.1%	6.5%	13.0%	44
Massachusetts	20,285	4,383	2,784,243	$0.2161	49	7,286	8	$1,574	41	1,136,926	16.7%	10	487,243	7.1%	12	2.1%	6.4%	12.8%	41
Michigan	35,131	5,427	4,365,526	$0.1545	41	8,047	11	$1,243	16	2,034,765	20.5%	28	924,971	9.3%	35	1.7%	5.0%	10.1%	16
Minnesota	22,837	3,001	2,420,321	$0.1314	35	9,436	18	$1,240	15	884,575	15.7%	4	378,159	6.7%	9	1.7%	5.0%	10.0%	15
Mississippi	19,311	2,147	1,290,280	$0.1112	14	14,967	49	$1,664	47	895,062	30.3%	49	387,176	13.1%	49	2.2%	6.7%	13.5%	47
Missouri	37,463	4,249	2,792,451	$0.1134	18	13,416	37	$1,522	38	1,183,206	19.7%	25	434,544	7.2%	13	2.0%	6.2%	12.3%	38
Montana	5,198	570	509,527	$0.1097	11	10,202	21	$1,119	4	184,523	17.7%	14	69,979	6.7%	10	1.5%	4.5%	9.1%	4
Nebraska	10,412	1,114	849,891	$0.1070	9	12,251	33	$1,311	18	353,361	18.9%	19	148,321	7.9%	23	1.7%	5.3%	10.6%	18
Nevada	13,450	1,593	1,183,659	$0.1184	23	11,363	28	$1,346	21	669,137	22.4%	39	303,542	10.2%	42	1.8%	5.5%	10.9%	21
New Hampshire	4,641	914	622,670	$0.1969	46	7,453	9	$1,468	29	179,048	13.4%	1	51,400	3.9%	1	2.0%	5.9%	11.9%	29
New Jersey	29,531	4,550	3,568,043	$0.1541	40	8,277	12	$1,275	17	1,499,111	16.6%	7	555,308	6.2%	6	1.7%	5.2%	10.3%	17

Sources: U.S. EIA Form 861 2018, U.S. Census Bureau 2018 CPS, U.S. HHS 2019 Poverty Guidelines

State Rankings: Residential Electricity Price, Usage, and Expenditure, Plus Poverty and Home Electricity Burden by State

State	2018 Retail Sales (kWh x 1,000,000)	2018 Revenue from Sales ($ x 1,000,000)	2018 Number of Residential Customers	2018 Residential Price per kWh		2018 Usage per Residential Cusomter (kWh)		2018 Electricity Expenditure per Customer		2018 Population </= 150% Federal Poverty			2018 Population </= 75% Federal Poverty			Home Electricity Burden (2-person household) by Selected Income Levels			
				Price	*Rank*	*Usage*	*Rank*	*Expenditure*	*Rank*	*#*	*%*	*Rank*	*#*	*%*	*Rank*	*$75000/yr*	*150% FPG*	*75% FPG*	*Rank*
New Mexico	6,826	866	889,838	$0.1269	31	7,671	10	$973	2	623,735	30.5%	50	275,362	13.5%	50	1.3%	3.9%	7.9%	2
New York	52,153	9,659	7,190,903	$0.1852	44	7,253	7	$1,343	20	4,347,833	22.0%	35	1,739,172	8.8%	30	1.8%	5.4%	10.9%	20
North Carolina	61,622	6,835	4,550,417	$0.1109	13	13,542	39	$1,502	35	2,586,835	25.2%	46	1,138,310	11.1%	46	2.0%	6.1%	12.2%	35
North Dakota	5,133	526	382,592	$0.1025	5	13,416	38	$1,375	23	134,488	18.1%	17	64,820	8.7%	28	1.8%	5.6%	11.1%	23
Ohio	54,452	6,840	4,964,849	$0.1256	30	10,968	25	$1,378	24	2,364,838	20.5%	29	1,050,071	9.1%	34	1.8%	5.6%	11.2%	24
Oklahoma	24,117	2,484	1,764,979	$0.1030	6	13,664	41	$1,407	25	849,216	22.2%	37	336,515	8.8%	31	1.9%	5.7%	11.4%	25
Oregon	18,931	2,079	1,750,239	$0.1098	12	10,816	24	$1,188	11	848,192	20.2%	26	310,216	7.4%	15	1.6%	4.8%	9.6%	11
Pennsylvania	55,896	7,765	5,390,427	$0.1389	38	10,369	22	$1,441	26	2,319,020	18.5%	18	1,063,073	8.5%	27	1.9%	5.8%	11.7%	26
Rhode Island	3,124	642	442,006	$0.2055	47	7,068	6	$1,452	27	200,438	19.4%	23	100,458	9.7%	39	1.9%	5.9%	11.8%	27
South Carolina	31,852	3,963	2,290,200	$0.1244	28	13,908	44	$1,730	48	1,194,728	24.1%	43	557,190	11.3%	48	2.3%	7.0%	14.0%	48
South Dakota	5,018	582	400,147	$0.1160	21	12,540	35	$1,454	28	164,988	19.0%	21	68,746	7.9%	24	1.9%	5.9%	11.8%	28
Tennessee	44,382	4,752	2,882,983	$0.1071	10	15,394	51	$1,648	46	1,356,193	20.3%	27	539,750	8.1%	25	2.2%	6.7%	13.4%	46
Texas	157,268	17,610	11,148,781	$0.1120	16	14,106	47	$1,580	43	6,592,118	23.4%	42	2,727,333	9.7%	40	2.1%	6.4%	12.8%	43
Utah	9,715	1,011	1,091,159	$0.1041	7	8,903	16	$927	1	483,104	15.4%	3	170,882	5.5%	2	1.2%	3.8%	7.5%	1
Vermont	2,116	381	315,137	$0.1801	43	6,715	3	$1,209	12	119,259	19.5%	24	40,602	6.6%	8	1.6%	4.9%	9.8%	12
Virginia	47,963	5,624	3,431,575	$0.1173	22	13,977	45	$1,639	45	1,463,012	17.8%	16	609,467	7.4%	17	2.2%	6.6%	13.3%	45
Washington	35,339	3,446	3,076,868	$0.0975	2	11,485	29	$1,120	5	1,239,761	16.7%	9	532,464	7.2%	14	1.5%	4.5%	9.1%	5
West Virginia	11,679	1,306	859,039	$0.1118	15	13,595	40	$1,520	37	495,524	27.6%	48	203,663	11.3%	47	2.0%	6.2%	12.3%	37
Wisconsin	22,445	3,147	2,700,651	$0.1402	39	8,311	14	$1,165	10	932,920	16.0%	6	365,955	6.3%	7	1.6%	4.7%	9.4%	10
Wyoming	2,748	310	272,429	$0.1128	17	10,087	20	$1,138	6	118,908	21.2%	31	42,009	7.5%	19	1.5%	4.6%	9.2%	6

Sources: U.S. EIA Form 861 2018, U.S. Census Bureau 2018 CPS, U.S. HHS 2019 Poverty Guidelines

Public Version

Direct Testimony of John Howat
Exhibit JH-3

See File "Exh. JH-3 Burdens by Division"

MedianTotal Home Energy Burden and Median Electricity Burden by Census Division - 2015

Census Division	Total Home Energy Burden	Home Electricity Burden
New England	4.9%	2.6%
Middle Atlantic	3.7%	2.1%
East North Central	3.2%	2.1%
West North Central	3.4%	2.3%
South Atlantic	3.6%	3.0%
East South Central	5.3%	4.4%
West South Central	3.5%	3.0%
Mountain North	2.7%	1.6%
Mountain South	3.7%	2.9%
Pacific	2.3%	1.7%
Total	3.4%	2.5%

Source: EIA 2015 Residential Energy Consumption Survey

Burden variables computed by National Consumer Law Center

Public Version

Direct Testimony of John Howat
Exhibit JH-4

See File "Exh. JH-4 Energy Insecurity Frequencies East South Central"

East South Central Census Division:
Frequency of reducing or forgoing basic necessities due to home energy bill

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Never	4,704,908	65.4	65.4	65.4
	Almost every month	794,937	11.0	11.0	76.4
	Some months	1,306,777	18.2	18.2	94.6
	1 or 2 months	390,567	5.4	5.4	100.0
	Total	7,197,189	100.0	100.0	

East South Central Census Division:
Frequency of receiving disconnect notice

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Never	5,652,575	78.5	78.5	78.5
	Almost every month	213,172	3.0	3.0	81.5
	Some months	544,606	7.6	7.6	89.1
	1 or 2 months	786,835	10.9	10.9	100.0
	Total	7,197,189	100.0	100.0	

East South Central Census Division:
Frequency of keeping home at unhealthy temperature

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Never	6,143,907	85.4	85.4	85.4
	Almost every month	210,745	2.9	2.9	88.3
	Some months	447,222	6.2	6.2	94.5
	1 or 2 months	395,314	5.5	5.5	100.0
	Total	7,197,189	100.0	100.0	

Source: EIA 2015 Residential Energy Consumption Survey

Public Version

Direct Testimony of John Howat
Exhibit JH-5

See File "Exh. JH-5 Energy Insecurity Crosstabs East South Central"

East South Central Census Division:

Annual gross household income for the last year * Frequency of reducing or forgoing basic necessities due to home energy bill Crosstabulation

			Frequency of reducing or forgoing basic necessities due to home energy bill				
			Never	Almost every month	Some months	1 or 2 months	Total
Annual gross household income for the last year	Less than $20,000	Count	1078471	424902	554290	123673	2181336
		% within Annual gross household income for the last year	49.4%	19.5%	25.4%	5.7%	100.0%
	$20,000 - $39,999	Count	1191395	190078	434978	167437	1983888
		% within Annual gross household income for the last year	60.1%	9.6%	21.9%	8.4%	100.0%
	$40,000 - $59,999	Count	908075	149782	239699	11380	1308936
		% within Annual gross household income for the last year	69.4%	11.4%	18.3%	.9%	100.0%
	$60,000 to $79,999	Count	523618	0	54814	65953	644385
		% within Annual gross household income for the last year	81.3%	0.0%	8.5%	10.2%	100.0%
	$80,000 to $99,999	Count	405254	0	0	0	405254
		% within Annual gross household income for the last year	100.0%	0.0%	0.0%	0.0%	100.0%
	$100,000 to $119,999	Count	166265	0	22996	22124	211385
		% within Annual gross household income for the last year	78.7%	0.0%	10.9%	10.5%	100.0%
	$120,000 to $139,999	Count	111348	30176	0	0	141524
		% within Annual gross household income for the last year	78.7%	21.3%	0.0%	0.0%	100.0%
	$140,000 or more	Count	320482	0	0	0	320482
		% within Annual gross household income for the last year	100.0%	0.0%	0.0%	0.0%	100.0%
Total		Count	4704908	794938	1306777	390567	7197190
		% within Annual gross household income for the last year	65.4%	11.0%	18.2%	5.4%	100.0%

Source: EIA 2015 Residential Energy Consumption Survey

East South Central Census Division:

Annual gross household income for the last year * Frequency of receiving disconnect notice Crosstabulation

			Frequency of receiving disconnect notice				
			Never	Almost every month	Some months	1 or 2 months	Total
Annual gross household income for the last year	Less than $20,000	Count	1602595	82532	203713	292496	2181336
		% within Annual gross household income for the last year	73.5%	3.8%	9.3%	13.4%	100.0%
	$20,000 - $39,999	Count	1429625	98337	196367	259558	1983887

		% within Annual gross household income for the last year	72.1%	5.0%	9.9%	13.1%	100.0%
	$40,000 - $59,999	Count	1046823	32303	94832	134978	1308936
		% within Annual gross household income for the last year	80.0%	2.5%	7.2%	10.3%	100.0%
	$60,000 to $79,999	Count	494887	0	49694	99803	644384
		% within Annual gross household income for the last year	76.8%	0.0%	7.7%	15.5%	100.0%
	$80,000 to $99,999	Count	405254	0	0	0	405254
		% within Annual gross household income for the last year	100.0%	0.0%	0.0%	0.0%	100.0%
	$100,000 to $119,999	Count	211385	0	0	0	211385
		% within Annual gross household income for the last year	100.0%	0.0%	0.0%	0.0%	100.0%
	$120,000 to $139,999	Count	141524	0	0	0	141524
		% within Annual gross household income for the last year	100.0%	0.0%	0.0%	0.0%	100.0%
	$140,000 or more	Count	320482	0	0	0	320482
		% within Annual gross household income for the last year	100.0%	0.0%	0.0%	0.0%	100.0%
Total		Count	5652575	213172	544606	786835	7197188
		% within Annual gross household income for the last year	78.5%	3.0%	7.6%	10.9%	100.0%

Source: EIA 2015 Residential Energy Consumption Survey

East South Central Census Division:
Annual gross household income for the last year * Frequency of keeping home at unhealthy temperature Crosstabulation

			Frequency of keeping home at unhealthy temperature				
			Never	Almost every month	Some months	1 or 2 months	Total
Annual gross household income for the last year	Less than $20,000	Count	1636947	86006	303879	154503	2181335
		% within Annual gross household income for the last year	75.0%	3.9%	13.9%	7.1%	100.0%
	$20,000 - $39,999	Count	1734993	94563	41193	113139	1983888
		% within Annual gross household income for the last year	87.5%	4.8%	2.1%	5.7%	100.0%
	$40,000 - $59,999	Count	1127232	0	86276	95428	1308936
		% within Annual gross household income for the last year	86.1%	0.0%	6.6%	7.3%	100.0%
	$60,000 to $79,999	Count	618390	0	15874	10120	644384
		% within Annual gross household income for the last year	96.0%	0.0%	2.5%	1.6%	100.0%
	$80,000 to $99,999	Count	405254	0	0	0	405254
		% within Annual gross household income for the last year	100.0%	0.0%	0.0%	0.0%	100.0%

	$100,000 to $119,999	Count	189261	0	0	22124	211385
		% within Annual gross household income for the last year	89.5%	0.0%	0.0%	10.5%	100.0%
	$120,000 to $139,999	Count	111348	30176	0	0	141524
		% within Annual gross household income for the last year	78.7%	21.3%	0.0%	0.0%	100.0%
	$140,000 or more	Count	320482	0	0	0	320482
		% within Annual gross household income for the last year	100.0%	0.0%	0.0%	0.0%	100.0%
Total		Count	6143907	210745	447222	395314	7197188
		% within Annual gross household income for the last year	85.4%	2.9%	6.2%	5.5%	100.0%

Source: EIA 2015 Residential Energy Consumption Survey

Public Version

Direct Testimony of John Howat
Exhibit JH-6

Name of Respondent	This Report Is:	Date of Report (Mo, Da, Yr)	Year/Period of Report
ALABAMA POWER COMPANY	(1) [X] An Original (2) [ ] A Resubmission	12/31/2018	End of 2018/Q4

ELECTRIC OPERATING REVENUES (Account 400)

1. The following instructions generally apply to the annual version of these pages. Do not report quarterly data in columns (c), (e), (f), and (g). Unbilled revenues and MWH related to unbilled revenues need not be reported separately as required in the annual version of these pages.
2. Report below operating revenues for each prescribed account, and manufactured gas revenues in total.
3. Report number of customers, columns (f) and (g), on the basis of meters, in addition to the number of flat rate accounts; except that where separate meter readings are added for billing purposes, one customer should be counted for each group of meters added. The -average number of customers means the average of twelve figures at the close of each month.
4. If increases or decreases from previous period (columns (c),(e), and (g)), are not derived from previously reported figures, explain any inconsistencies in a footnote.
5. Disclose amounts of $250,000 or greater in a footnote for accounts 451, 456, and 457.2.

Line No.	Title of Account (a)	Operating Revenues Year to Date Quarterly/Annual (b)	Operating Revenues Previous year (no Quarterly) (c)
1	Sales of Electricity		
2	(440) Residential Sales	2,335,175,722	2,302,495,439
3	(442) Commercial and Industrial Sales		
4	Small (or Comm.) (See Instr. 4)	1,578,302,583	1,649,255,424
5	Large (or Ind.) (See Instr. 4)	1,428,119,859	1,476,668,643
6	(444) Public Street and Highway Lighting	25,493,141	29,406,285
7	(445) Other Sales to Public Authorities		
8	(446) Sales to Railroads and Railways		
9	(448) Interdepartmental Sales		
10	TOTAL Sales to Ultimate Consumers	5,367,091,305	5,457,825,791
11	(447) Sales for Resale	398,043,439	372,499,113
12	TOTAL Sales of Electricity	5,765,134,744	5,830,324,904
13	(Less) (449.1) Provision for Rate Refunds	2,603,857	3,863,559
14	TOTAL Revenues Net of Prov. for Refunds	5,762,530,887	5,826,461,345
15	Other Operating Revenues		
16	(450) Forfeited Discounts	9,883,881	9,735,496
17	(451) Miscellaneous Service Revenues	21,069,815	19,056,936
18	(453) Sales of Water and Water Power	651,982	874,756
19	(454) Rent from Electric Property	65,500,798	70,593,749
20	(455) Interdepartmental Rents		
21	(456) Other Electric Revenues	46,774,206	45,435,886
22	(456.1) Revenues from Transmission of Electricity of Others	56,706,481	67,236,120
23	(457.1) Regional Control Service Revenues		
24	(457.2) Miscellaneous Revenues		
25			
26	TOTAL Other Operating Revenues	200,587,163	212,932,943
27	TOTAL Electric Operating Revenues	5,963,118,050	6,039,394,288

Public Version

Direct Testimony of John Howat
Exhibit JH-7

See File "Exh. JH-7 Alabama Elec Utils 2018 861"

(Data from forms EIA-861- schedules 4A & 4D and EIA-861S)

Entity	State	Ownership	Customers (Count)	Sales (Megawatthours)	Revenues (Thousands Dollars)	Average Price (cents/kWh)	Sales per Customer	Revenue per Customer
Pioneer Electric Coop, Inc - (AL)	AL	Cooperative	12,004	150,587	$24,719	16.42	12,545	$2,059
Diverse Power Incorporated	AL	Cooperative	566	8,221	$1,272	15.48	14,525	$2,248
Covington Electric Coop, Inc	AL	Cooperative	22,017	304,801	$43,700	14.34	13,844	$1,985
Tombigbee Electric Coop, Inc	AL	Cooperative	8,101	101,478	$14,115	13.91	12,527	$1,742
City of Tuskegee	AL	Municipal	5,846	60,790	$8,128	13.37	10,399	$1,390
Cherokee Electric Coop	AL	Cooperative	17,484	252,933	$33,542	13.26	14,467	$1,918
City of Andalusia	AL	Municipal	3,639	43,068	$5,621	13.05	11,835	$1,545
Coosa Valley Electric Coop Inc	AL	Cooperative	14,227	219,080	$28,416	12.97	15,399	$1,997
South Alabama Elec Coop, Inc	AL	Cooperative	15,815	222,835	$28,798	12.92	14,090	$1,821
Central Alabama Electric Coop	AL	Cooperative	41,567	604,252	$77,931	12.90	14,537	$1,875
Alabama Power Co	AL	Investor Owned	1,273,526	18,626,138	$2,385,939	12.81	14,626	$1,873
Wiregrass Electric Coop, Inc	AL	Cooperative	20,739	306,788	$39,131	12.76	14,793	$1,887
Clarke-Washington E M C	AL	Cooperative	18,368	229,838	$29,145	12.68	12,513	$1,587
Pea River Electric Coop	AL	Cooperative	14,546	213,209	$26,188	12.28	14,658	$1,800
City of Tarrant	AL	Municipal	2,167	30,593	$3,740	12.23	14,118	$1,726
City of Opelika - (AL)	AL	Municipal	10,756	142,583	$17,231	12.08	13,256	$1,602
Franklin Electric Coop - (AL)	AL	Cooperative	5,761	81,902	$9,811	11.98	14,217	$1,703
Foley Board of Utilities	AL	Municipal	39,708	627,843	$75,129	11.97	15,811	$1,892
City of Russellville - (AL)	AL	Municipal	3,961	53,881	$6,412	11.90	13,603	$1,619
Baldwin County El Member Corp	AL	Cooperative	69,514	976,956	$116,118	11.89	14,054	$1,670
Dixie Electric Coop	AL	Cooperative	20,192	309,633	$36,508	11.79	15,334	$1,808
Joe Wheeler Elec Member Corp	AL	Cooperative	35,028	618,168	$72,028	11.65	17,648	$2,056
Tallapoosa River Elec Coop Inc	AL	Cooperative	26,295	382,003	$44,208	11.57	14,528	$1,681
Singing River Elec Cooperative	AL	Cooperative	320	4,551	$526	11.56	14,222	$1,644
Cullman Electric Coop, Inc	AL	Cooperative	35,851	574,490	$66,181	11.52	16,024	$1,846
Southern Pine Elec Coop, Inc	AL	Cooperative	19,668	264,904	$30,432	11.49	13,469	$1,547
North Alabama Electric Coop	AL	Cooperative	12,925	207,527	$23,507	11.33	16,056	$1,819
City of Scottsboro	AL	Municipal	6,778	102,206	$11,566	11.32	15,079	$1,706
City of Fairhope - (AL)	AL	Municipal	5,954	80,964	$9,039	11.16	13,598	$1,518
Sand Mountain Electric Coop	AL	Cooperative	25,449	392,510	$43,492	11.08	15,423	$1,709

(Data from forms EIA-861- schedules 4A & 4D and EIA-861S)

Entity	State	Ownership	Customers (Count)	Sales (Megawatthours)	Revenues (Thousands Dollars)	Average Price (cents/kWh)	Sales per Customer	Revenue per Customer
Cullman Power Board	AL	Municipal	6,727	94,093	$10,333	10.98	13,987	$1,536
City of Athens - (AL)	AL	Municipal	39,891	634,846	$69,279	10.91	15,915	$1,737
Marshall-De Kalb Electric Coop	AL	Cooperative	15,482	248,181	$27,064	10.90	16,030	$1,748
Black Warrior Elec Member Corp	AL	Cooperative	20,321	283,628	$30,860	10.88	13,957	$1,519
City of Bessemer Utilities	AL	Municipal	9,381	122,169	$13,261	10.85	13,023	$1,414
Arab Electric Coop Inc	AL	Cooperative	12,665	205,642	$22,311	10.85	16,237	$1,762
City of Tuscumbia	AL	Municipal	3,961	55,986	$6,070	10.84	14,134	$1,532
Sheffield Utilities	AL	Municipal	15,295	248,560	$26,763	10.77	16,251	$1,750
City of Alexander City	AL	Municipal	5,067	55,023	$5,860	10.65	10,859	$1,157
Fort Payne Improvement Authority	AL	Municipal	6,577	99,910	$10,614	10.62	15,191	$1,614
Guntersville Electric Board	AL	Municipal	4,720	73,467	$7,716	10.50	15,565	$1,635
City of Hartselle	AL	Municipal	4,315	66,660	$6,950	10.43	15,448	$1,611
City of Muscle Shoals	AL	Municipal	6,466	106,330	$10,882	10.23	16,444	$1,683
City of Florence - (AL)	AL	Municipal	40,569	670,112	$68,542	10.23	16,518	$1,690
City of Huntsville - (AL)	AL	Municipal	162,839	2,646,045	$267,818	10.12	16,249	$1,645
Sylacauga Utilities Board	AL	Municipal	5,222	76,365	$7,702	10.09	14,624	$1,475
City of Dothan - (AL)	AL	Municipal	25,559	383,670	$38,615	10.06	15,011	$1,511
City of Courtland	AL	Municipal	595	8,490	$852	10.04	14,269	$1,432
Albertville Municipal Utilities Board	AL	Municipal	7,982	126,620	$12,378	9.78	15,863	$1,551
Decatur Utilities	AL	Municipal	22,557	347,486	$33,753	9.71	15,405	$1,496
City of Troy - (AL)	AL	Municipal	6,534	99,871	$9,580	9.59	15,285	$1,466