BEFORE THE

COUNCIL OF THE CITY OF NEW ORLEANS

IN RE: APPLICATION OF ENTERGY NEW ORLEANS, INC. FOR APPROVAL TO DEPLOY ADVANCED METERING INFRASTRUCTURE, AND REQUEST FOR COST RECOVERY AND RELATED RELIEF	**)))))**	**DOCKET NO. UD-16-04**

DIRECT TESTIMONY

OF

CORTNEY A. CROUCH

ON BEHALF OF

THE ADVISORS TO THE

COUNCIL OF THE CITY OF NEW ORLEANS

MAY 26, 2017

PREPARED DIRECT TESTIMONY

OF

CORTNEY A. CROUCH

I. INTRODUCTION

Q. PLEASE STATE YOUR NAME, BUSINESS ADDRESS AND OCCUPATION.

A. My name is Cortney A. Crouch. My business address is 8055 East Tufts Avenue, Suite 1250, Denver, Colorado. I am a Senior Economist with the firm, Legend Consulting Group Limited ("Legend").

Q. ON WHOSE BEHALF DO YOU APPEAR IN THIS PROCEEDING?

A. I am presenting testimony on behalf of the Advisors to the Council of the City of New Orleans ("Council" or "CNO"). The Council regulates the rates, terms, and conditions of electric and gas service of Entergy New Orleans, Inc. ("ENO"). ENO is one of the Entergy Operating Companies[1] and is a wholly-owned subsidiary of Entergy Corporation ("Entergy").

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1 The Entergy Operating Companies ("Operating Companies") are Entergy Arkansas, Inc. ("EAI"); Entergy Louisiana, LLC ("ELL"); Entergy Mississippi, Inc. ("EMI"); Entergy Texas, Inc. ("ETI"); and ENO.

Q. PLEASE SUMMARIZE YOUR RELEVANT EDUCATIONAL BACKGROUND AND PROFESSIONAL EXPERIENCE.

A. Exhibit No. ___ (CAC-2) provides a summary of my relevant education and professional experience and Exhibit No. ____ (CAC-3) lists my previous testimony.

Q. WHAT IS THE PURPOSE OF YOUR TESTIMONY?

A. The purpose of my testimony is to present three exhibits, resulting from a revenue requirements model with various adjustments developed under the direction of Advisor witnesses Mr. Victor M. Prep, P.E. and Mr. Byron S. Watson, CFA, CRRA. HSPM Exhibit No. ___ (CAC-4) presents estimated energy and demand related Advanced Metering Infrastructure ("AMI") benefits. HSPM Exhibit No. ___ (CAC-5) presents a cost/benefit analysis developed from projected revenue requirements. HSPM Exhibit No. ___ (CAC-6) presents adjusted AMI revenue requirements for the implementation period.

Q. PLEASE BRIEFLY DESCRIBE THE THREE EXHIBITS THAT YOU PRESENT IN YOUR TESTIMONY.

A. Exhibit No. ___ (CAC-4) presents adjustments to the energy related benefits calculations provided by Company witness Mr. Jay A. Lewis in HSPM Exhibit JAL-2 to reflect the lower sales forecast provided in the Company's response to Advisors' RFI CNO 2-8 (CNO 2-8). Utilizing the adjusted energy related benefits contained in Exhibit No. ___ (CAC-4), Exhibit No. ___ (CAC-5) presents the results of a cost/benefit analysis over the fifteen-year AMI life that includes the impact of an incremental stranded cost recovery on revenue requirements and the AMI project's net present value. Exhibit No. ___ (CAC-6) presents the results of an adjustment to the estimated electric revenue requirements provided by Company Witness Mr. Orlando Todd in HSPM Exhibit OT-1 and the estimated gas revenue requirements in HSPM Exhibit OT-2 that reflects the updated energy related benefits presented in Exhibit No. ___ (CAC-4) and includes the incremental stranded cost recovery value presented in Exhibit No. ___ (CAC-5).

Q. PLEASE EXPLAIN THE ASSUMPTIONS THAT WERE USED IN DEVELOPING THE REVENUE REQUIREMENT MODEL.

A. As Mr. Watson discusses in his testimony, the revenue requirement estimates reflect the expensing of all AMI Operations and Maintenance ("O&M") costs and customer education expenses as they are incurred. As such, the revenue requirements model used in Exhibit No. ___ (CAC-5) and Exhibit No. ___ (CAC-6) does not include an amortization expense associated with the deferral of those AMI O&M and customer education costs from 2017 and 2018 as contained in Exhibits OT-1, OT-2, JAL-2, and the Company's response to Advisors' RFI CNO 2-9 (CNO 2-9). For the business case period, the model employs the fifteen-year book life of AMI as proposed in the Application and as used in Exhibits OT-1, OT-2, JAL-2, and the Company's response to CNO 2-9. Per Exhibits OT-1 and OT-2, the analysis employed the ten-year Bonus 40 depreciation schedule for plant placed in service in 2018, the ten-year Bonus 30 depreciation schedule for plant placed in service in 2019, and the 10-year Modified

Accelerated Cost Recovery System ("MACRS") depreciation schedule for all plant placed in service in 2020 and later. All capital and O&M costs are utilized as reported in Exhibit OT-1 for electric and Exhibit OT-2 for gas and the Company's response to CNO 2-9. Electric O&M savings are the sum of savings from Meter Reading, Meter Services, and Reduced Customer Receivables Write-Offs calculated in Exhibit JAL-2 and the Company's response to CNO 2-9. Gas O&M savings are the sum of savings from Meter Reading and Meter Services as reported in Exhibit JAL-2 and the Company's response to CNO 2-9.

Q. PLEASE EXPLAIN THE PROCESS USED IN DEVELOPING THE REVENUE REQUIREMENTS MODEL EMPLOYED IN THE COST/BENEFIT ANALYSIS CONTAINED IN EXHIBIT NO. ___ (CAC-5).

A. The revenue requirements model for both electric and gas utilized all of the inputs and sales forecast used in Exhibit JAL-2 for AMI benefits. The model utilized the inputs and depreciation schedules used in Exhibits OT-1 and OT-2 and in the Company's response to CNO 2-9 for AMI costs. As directed by Mr. Watson, this revenue requirements model excluded the amortization expense of deferring certain AMI O&M costs and customer education expenses in 2017 and 2018; instead, it expensed these costs as they are incurred.

Q. WHAT ARE THE AMI NET BENEFITS THAT WERE CALCULATED BASED ON THE ORIGINAL INPUTS FROM EXHIBIT OT-1, EXHIBIT OT-2, EXHIBIT

JAL-2, AND THE COMPANY'S RESPONSE TO CNO 2-9 WITH NO ADJUSTMENTS IN THE REVENUE REQUIREMENTS MODEL?

A. The nominal AMI net benefits calculated using the revenue requirements model is $100.6 million. In Table 1 at pages 7 and 8 of his Direct Testimony, Mr. Lewis presents net nominal AMI benefits of $101 million. Applying an 8.02 percent discount rate for electric and a 7.85 percent discount rate for gas as utilized in Exhibit JAL-2 to the revenue requirements model developed, the present value ($, 2018) of AMI net benefits is approximately $30.0 million.

Q. WHAT IS THE FIRST ADJUSTMENT TO ENO'S ASSUMPTIONS MADE IN THE REVENUE REQUIREMENTS MODEL?

A. The first adjustment made in the model incorporated the recalculated benefits related to consumption reduction and the reduction in unaccounted for energy ("UFE") as contained in Exhibit No. ___ (CAC-4). The recalculated benefits reflect the lower residential and commercial sales forecasts provided in the accompanying workpaper to the Company's response to Advisors' RFI CNO 2-8 (CNO 2-8).

Q. WHY IS THIS ADJUSTMENT NECESSARY?

A. In their response to CNO 2-8, the Company stated that the updated total load requirement dated February 17, 2017, was based on a contemporaneous sales forecast that includes a decrement for the implementation of AMI's assumed effect on sales. The workpaper accompanying the response to CNO 2-8 provides an initial sales forecast, which is lower than the sales forecast that Mr. Lewis used in Exhibit JAL-2 to calculate AMI benefits. Under the direction of Mr. Prep, the lower sales forecast provided by the Company in their response to CNO 2-8 was used to recalculate the AMI benefits to ensure that AMI benefits are not overstated in revenue requirements.

Q. ARE THERE ANY OTHER ADJUSTMENTS MADE TO THE ASSUMPTIONS IN EXHIBIT OT-1, EXHIBIT OT-2, EXHIBIT JAL-2, AND THE COMPANY'S RESPONSE TO CNO 2-8 THAT ARE INCLUDED IN THE REVENUE REQUIREMENTS MODEL?

A. Exhibit JAL-2 utilized an electric usage reduction of 1.75 percent for residential and commercial customers in calculating the AMI benefits associated with consumption reduction. However, the workpaper corresponding to the Company's response to CNO 2-8 used a 1.50 percent sales reduction for residential and commercial customers. Since the updated total load requirement is based on a contemporaneous 1.50 percent sales reduction, Mr. Prep directed that a 1.50 percent reduction be used in the model to calculate the savings associated with consumption reduction. Exhibit JAL-2 also utilized an AMI penetration timeline that decreases to zero percent by 2037. Per Mr. Prep's direction, this timeline reflects the Company proposed AMI fifteen-year book life and is therefore utilized in the model to calculate AMI benefits.

Q. ARE THERE ANY ADDITIONAL BENEFITS IMPACTED BY THE CHANGE IN LOAD FORECAST REQUIREMENTS PROVIDED BY THE COMPANY IN FEBRUARY OF 2017?

A. Yes. The updated load forecast requirements impact the AMI savings associated with reductions in peak capacity. Under the direction of Mr. Prep, an adjustment was made to the peak capacity savings to reflect the lower load forecast requirements provided by the Company. The Company's response to CNO 2-8 did not provide the values for the load forecast that correspond to the lower initial sales forecasts. Utilizing the load and capability information provided by the Company in February of 2017,[2] Mr. Prep estimated a percent reduction to the load requirement that was applied to the peak capacity requirement as provided in Exhibit JAL-2 to recalculate the benefits associated with AMI-related peak capacity requirement reductions.

Q. WHAT RETURN ON EQUITY IS UTILIZED IN THE REVENUE REQUIREMENTS MODEL?

A. Under the direction of Mr. Prep, the last Council-approved Return on Equity ("ROE") of 9.95 percent was utilized to calculate revenue requirements.

Q. WHAT ARE THE RESULTS OF THE ADJUSTMENTS MADE TO AMI ENERGY AND DEMAND BENEFITS AND THE RETURN ON EQUITY ON THE PROJECT'S NET PRESENT VALUE?

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[2] ENO Updated Load and Capability, February 17, 2017.

A. Using the adjusted consumption reduction, UFE reduction, and peak capacity savings and applying a 10.64 percent discount rate (equal to the Company's before-tax Weighted Average Cost of Capital ("WACC") consistent with a 9.95 percent ROE) to the resulting revenue requirements, the estimated present value of AMI net benefits is $10.5 million.

Q. DOES THE COST/BENEFIT ANALYSIS INCORPORATE ANY ADDITIONAL ADJUSTMENTS TO ENO'S ASSUMPTIONS?

A. Yes. Under the direction of both Mr. Watson and Mr. Prep, an amortization expense for the recovery of the retired meter plant was estimated and included in the revenue requirements model. Utilizing the difference between the regulatory asset amortized over a fifteen-year period calculated in Mr. Watson's analysis and the estimated annual revenue requirements based on the Company's response to Advisors' RFI CNO 2-22 (b) (CNO 2-22 (b)), an incremental stranded cost was included in the revenue requirements model. This adjustment to revenue requirements results in an additional $3.6 million in present value of AMI net benefits, for a total present value of AMI net benefits of $14.1 million.

Q. DOES THE REVENUE REQUIREMENTS MODEL THAT INCLUDES ALL OF THE PREVIOUSLY DESCRIBED ADJUSTMENTS LEAD TO THE REVISION OF ANY OTHER COMPANY PROVIDED EXHIBITS?

A. Yes. The estimated revenue requirements presented in Exhibits OT-1 and OT-2 are adjusted using the revenue requirements model described above and are presented in

Exhibit No. ___ (CAC-6). Exhibit No. ___ (CAC-6) estimates the revenue requirements based on all fixed costs and does not include those AMI benefits associated with energy consumption and assumed to flow through the Fuel Adjustment Clause ("FAC").

Q. WHERE ARE THE RESULTS OF THE REVENUE REQUIREMENTS MODEL PRESENTED?

A. The results of the model are presented in HSPM Exhibit No. ___ (CAC-4), HSPM Exhibit No. ___ (CAC-5), and HSPM Exhibit No. ___ (CAC-6) and are summarized in the below table.

Table 1: Summary of Cost/Benefit Analysis

	Nominal Net Benefits/(Costs) ($M)	**PV of Net Benefits/(Costs) ($M, 2018)**
Revenue Requirements Model with no Adjustments --No Amortization Expense for Deferral of O&M and Customer Education Costs --Discounted at ENO's After-Tax WACC	$100.1	$30.0
Adjusted Benefits --No Amortization Expense for Deferral of O&M and Customer Education Costs --Discounted at ENO's Before-Tax WACC --Benefits Adjusted to Reflect Lower Sales Forecast per ENO Response to CNO 2-8	$74.1	$10.5
Adjusted Benefits Including Stranded Cost Recovery --No Amortization Expense for Deferral of O&M and Customer Education Costs --Discounted at ENO's Before-Tax WACC --Benefits Adjusted to Reflect Lower Sales Forecast per ENO Response to CNO 2-8 --Stranded Cost is the Difference Between a Straight Line Amortization over 15 Years at ENO's Cost of Long-Term Debt	$89.2	$14.1

Q. DOES THIS CONCLUDE YOUR TESTIMONY?

A. Yes.

AFFIRMATION

STATE OF COLORADO)
)
COUNTY OF DENVER)

I, Cortney A. Crouch, am the person identified in the attached Testimony and such testimony was prepared by me or under my direct supervision; the answers and information set forth therein are true to the best of my knowledge and belief, and if asked the questions set forth therein, my answers thereto would, under oath, be the same.

Cortney A Crouch

Cortney A. Crouch

Subscribed and sworn to before me
this 26th day of May, 2017.

Robin M Shaver-Labarge

NOTARY PUBLIC

ROBIN MARIE SHAVER-LaBARGE
NOTARY PUBLIC
STATE OF COLORADO
NOTARY ID 20064043695
MY COMMISSION EXPIRES APRIL 3, 2019