BEFORE THE
COUNCIL OF THE CITY OF NEW ORLEANS

APPLICATION OF ENTERGY NEW ORLEANS, INC. FOR APPROVAL TO CONSTRUCT NEW ORLEANS POWER STATION AND REQUEST FOR COST RECOVERY AND TIMELY RELIEF	**)))))**	**DOCKET NO. UD-16-02**

Direct Testimony & Exhibits of

Maurice Brubaker

On behalf of

Air Products and Chemicals, Inc.

January 6, 2017

BRUBAKER & ASSOCIATES, INC.

BEFORE THE
COUNCIL OF THE CITY OF NEW ORLEANS

APPLICATION OF ENTERGY NEW ORLEANS, INC. FOR APPROVAL TO CONSTRUCT NEW ORLEANS POWER STATION AND REQUEST FOR COST RECOVERY AND TIMELY RELIEF	)))))	DOCKET NO. UD-16-02

STATE OF MISSOURI)
) SS
COUNTY OF ST. LOUIS)

Affidavit of Maurice Brubaker

Maurice Brubaker, being first duly sworn, on his oath states:

1. My name is Maurice Brubaker. I am a consultant with Brubaker & Associates, Inc., having its principal place of business at 16690 Swingley Ridge Road, Suite 140, Chesterfield, Missouri 63017. We have been retained by Air Products and Chemicals, Inc. in this proceeding on their behalf.

2. Attached hereto and made a part hereof for all purposes is my direct testimony and exhibits which were prepared in written form for introduction into evidence in the Council of the City of New Orleans Docket No. UD-16-02.

3. I hereby swear and affirm that the testimony and exhibits are true and correct and that they show the matters and things that they purport to show.

M E Brubaker
Maurice Brubaker

Subscribed and sworn to before me this 5th day of January, 2017.

TAMMY S. KLOSSNER
Notary Public - Notary Seal
STATE OF MISSOURI
St. Charles County
My Commission Expires: Mar. 18, 2019
Commission # 15024862

Tammy S Klossner
Notary Public

BEFORE THE
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APPLICATION OF ENTERGY NEW ORLEANS, INC. FOR APPROVAL TO CONSTRUCT NEW ORLEANS POWER STATION AND REQUEST FOR COST RECOVERY AND TIMELY RELIEF	)	**DOCKET NO. UD-16-02**

<u>Direct Testimony of Maurice Brubaker</u>

Q PLEASE STATE YOUR NAME AND BUSINESS ADDRESS.

A Maurice Brubaker. My business address is 16690 Swingley Ridge Road, Suite 140, Chesterfield, MO 63017.

Q WHAT IS YOUR OCCUPATION?

A I am a consultant in the field of public utility regulation and President of Brubaker & Associates, Inc., energy, economic and regulatory consultants.

Q PLEASE DESCRIBE YOUR EDUCATIONAL BACKGROUND AND EXPERIENCE.

A This information is included in Appendix A to my testimony.

Q ON WHOSE BEHALF ARE YOU APPEARING IN THIS PROCEEDING?

A I am appearing on behalf of Air Products and Chemicals, Inc. ("Air Products"), a large industrial customer taking service from Entergy New Orleans, Inc. ("ENO"). Air Products has been a customer of ENO, and predecessor company New Orleans Public

Service, Inc., since 1965. Its load is primarily interruptible, and it is the only customer taking service under the LIS rate.

The Air Products facility sustained significant damage as a result of Hurricane Katrina. Air Products spent in excess of $80 million to rebuild the facility and to maintain its presence in New Orleans.

Q HAVE YOU REVIEWED THE APPLICATION, TESTIMONY, EXHIBITS AND OTHER MATERIAL FILED IN THIS PROCEEDING?

A Yes. I have reviewed both the public and the highly sensitive protected material (“HSPM”) from this proceeding, including the application, testimony, exhibits and responses to data requests. In addition, I have reviewed other material, including the final integrated resource plan (“IRP”) from Docket No. UD-08-02, the final action plan from Docket No. UD-08-02, the material filed by ENO in Docket No. UD-16-01 and in UD-16-03. I also reviewed material from the Council of the City of New Orleans (“Council”) and the Louisiana Public Service Commission (“LPSC”) dockets concerning Ninemile Unit 6 (“NM6”) and Union Power Station (“UPS”).

Q WHAT SUBJECTS DO YOU ADDRESS IN YOUR TESTIMONY?

A My testimony addresses the question of what action the Council should take with respect to the application of ENO for approval to construct the New Orleans Power Station (“NOPS”), and the request for approval of a cost recovery plan.

Q IS ANY OTHER TESTIMONY BEING FILED ON BEHALF OF AIR PRODUCTS?

A Yes. My colleague, James R. Dauphinais, is filing testimony on transmission issues.

SUMMARY

Q WHAT ARE YOUR FINDINGS AND RECOMMENDATIONS?

A First, I find that ENO has not justified a need to add 226 MW of capacity at this time. Second, I find that even if the amount of new capacity that has been identified by ENO were appropriate, ENO has not taken appropriate steps to determine the most reasonable choice for meeting the projected needs of ENO's customers. Third, I find that a competitive solicitation approach in the form of a request for proposals ("RFP") is an appropriate way to test the market to determine the full range of credible options available when a utility has identified a need for new capacity. Fourth, I find that ENO has not conducted any form of RFP to determine what alternatives exist to the self-construction of NOPS.

I also find that the conduct of a competitive solicitation in the form of an RFP is a requirement that many regulatory bodies, including the LPSC, have established as an integral step in the certification process for new capacity, and is a process that ENO should follow.

ENO's failure to conduct a competitive solicitation process by means of an RFP is an additional reason that I recommend the Council not grant approval for ENO to construct NOPS at this time.

I find that ENO requests an exact rider cost recovery, such as the existing Purchased Power and Capacity Acquisition Cost Recovery Rider ("PPCACR Rider") for use between the time that new generation enters commercial service and the time that there is either a full rate case or an annual Formula Rate Plan ("FRP") review.

I find that the PPCACR Rider is arbitrary because it allocates the non-fuel revenue requirement to customers on the basis of kWh purchased, and therefore is not cost-based and not an appropriate means of collecting non-fuel revenue requirements. Because of this inappropriate PPCACR Rider mechanism that allocates cost on a kWh basis, Air Products is already being charged at the rate of about $2.5 million per year, instead of a cost-based amount of about $1 million per year, for the Ninemile Unit 6 PPA ("NM6 PPA") and the Union Power Station Power Block No. 1 ("UPS").

I also find that ENO does not need to have an exact cost recovery rider of any kind. Rather, it can capitalize and defer for later recovery (after the conclusion of a prudency review) the non-fuel costs associated with any new unit, should it be approved by the Council. This prudency review and reflection of costs in rates can occur in the context of a general rate case, or in an annual FRP review proceeding.

REQUEST FOR APPROVAL OF NOPS

Q WHAT IS NOPS?

A NOPS is a 226 MW (summer rating) combustion turbine which ENO proposes to construct and locate at the Michoud site. Because ENO will own the NOPS generating unit, it is best described as a self-build unit.

Q HAVE YOU REVIEWED THE DIRECT TESTIMONY OF ENO WITNESS CUREINGTON WITH RESPECT TO THE CLAIMED NEED FOR CAPACITY?

A Yes. At page 5 of his testimony he states that ENO's studies indicate a long-term capacity need of approximately 124 MW in 2016 and up to 205 MW by 2030.

Q WHAT IS THE BASIS FOR THE 81 MW ESCALATION IN CLAIMED NEED FROM 2016 TO 2030?

A There are essentially two components. The first is a projected increase in load (including a 12% reserve margin) of 28 MW, and the second is a reduction in available capacity of 53 MW.

Q ARE THESE CHANGES CERTAIN TO OCCUR?

A No. The 2030 data is a forecast 14 years into the future, and it is possible that the load does not grow as much as projected, that the minor retirements that have been identified will be delayed until a later point in time, or that both will occur.

A review of page 1 of Exhibit SEC-4 also reveals that the claimed need for additional capacity does not even exceed 150 MW until the year 2026, so most of the increase in requirements occurs during the last several years of the referenced time period.

Q IN YOUR OPINION, DO THESE FORECASTS JUSTIFY ADDING 226 MW OF CAPACITY (THE PROPOSED NOPS UNIT) AT THIS TIME?

A No. There is not an immediate need for that amount of capacity. The immediate need as forecasted by ENO is less than 150 MW. In light of the long time before an indicated capacity need would approach 226 MW, installing a smaller amount of capacity now will cover needs in the near future, and provide time to evaluate how loads actually materialize, and to monitor the need for and timing of unit retirements. The smaller revenue requirement associated with a smaller capacity addition also will mean less of an impact on customers.

Q AT PAGE 5 OF HIS TESTIMONY, MR. CUREINGTON APPEARS TO ATTEMPT TO JUSTIFY THE INSTALLATION OF NOPS BASED ON A CLAIMED NEED FOR PEAKING AND RESERVE CAPACITY RESOURCES, SEPARATE AND APART FROM THE OVERALL NEED FOR RESOURCES. IS THIS A REASONABLE BASIS FOR INSTALLING A LARGER UNIT SUCH AS NOPS?

A No. While it is reasonable to identify the types of capacity needed, those evaluations should only influence the type of capacity that is installed when an overall need has been identified, and should not determine the amount of capacity to be installed. So long as the utility has sufficient capacity to meet its requirements, it is neither reasonable nor prudent to install more capacity than is required simply for the purpose of increasing the amount of one particular type of capacity that is not otherwise needed.

Q DID ENO UNDERTAKE TO DETERMINE WHETHER THERE WERE OTHER POWER SUPPLY RESOURCES THAT COULD HAVE SATISFIED ITS IDENTIFIED NEEDS?

A No. ENO did not make any effort to determine if third-party resources were available under a Purchased Power Agreement ("PPA"), if third parties were willing to sell existing assets to ENO, if third parties were willing to construct the necessary capacity and sell the asset to ENO, or if third parties would be willing to construct the necessary capacity and sell the output to ENO under a PPA. (See ENO's response to APC 2-6, which is attached hereto as Exhibit MEB-1.)

As is evident from the response provided by ENO to APC 2-6, no effort was made to determine if other sources of capacity might be available on more attractive terms than ENO's proposed self-build NOPS. Referring to the response to APC 2-6, the answer really begs the question. ENO states that it did not do an RFP because (see last sentence):

> "The Company is not aware of any existing or proposed new-build peaking resources in the City of New Orleans other than NOPS.

This obviously misses the point. The point of doing an RFP is to inquire of the market what options may be available either in the form of a sale of assets, or a PPA from existing assets, a PPA from newly constructed assets, or from a third-party willing to construct capacity and sell the asset to ENO. Tying the build of a potential new asset to a specific location in ENO's service territory defeats the purpose of ENO joining MISO and of stakeholder feedback to a specific location and/or need.

Q WHAT IS YOUR OPINION OF THE PROCESS FOLLOWED BY ENO?

A I believe ENO short-cut the process and did not make proper inquiries of the market to determine if there were credible alternatives to its intended self-build of NOPS that might have provided more value to customers.

Q IS USE OF AN RFP MECHANISM AN ACCEPTED MEANS OF TESTING THE MARKET TO ENSURE THAT THE BEST CHOICE OF NEW CAPACITY IS SELECTED?

A Yes. It is an accepted methodology, and is an important element of a robust decision-making process.

Q DO OTHER REGULATORY BODIES REQUIRE UTILITIES SEEKING NEW CAPACITY TO FOLLOW AN RFP PROCESS?

A Yes. For example, the LPSC has issued a series of orders over the years dealing with this subject. The LPSC's order in Docket No. U-31971 (Ninemile Unit 6) provides a summary of these requirements at page 5 of the March 21, 2012 LPSC Order approving construction of NM6. The LPSC summarized these requirements as follows:

> "**C MARKET-BASED MECHANISMS ("MBM") ORDER**
> On February 16, 2004, the Commission adopted the current version of the MBM Order, establishing various procedures and requirements for the market testing of any proposed capacity acquisition or purchased power contract.[7] The MBM Order augments the procedures of the 1983 General Order and requires a utility proposing to acquire or build new generating capacity or to enter into purchased power contracts to "employ a market-based mechanism" consisting of a "Request For Proposal ("RFP") competitive solicitation process."[8] The utility must present the results and analysis from this RFP to the Commission as

> part of the "justifications" required by Paragraph (2) of the 1983 General Order.[9] In addition, the MBM Order prescribes procedures to be followed by the utility in conducting the RFP process and presenting the results of that process to the Commission Staff.[10] The procedures required by the MBM Order include, among other things, the use of an independent monitor to track the utility's conduct of the RFP process in which affiliates or self-build/self-supply proposals are competing, and the obligation to alert the Staff to any irregularities in the RFP process or any concerns.[11] Finally, the MBM Order provides a number of procedural safeguards designed to protect against changes to the self-build cost estimate during the RFP evaluation and selection process.[12]"

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[7]See generally MBM Order. The MBM Order dated February 16, 2004 amended and superseded the Commission's General Order dated April 10, 2002, which was the Commission's first order establishing market testing requirements for new capacity additions. The MBM Order also was amended by General Order, Docket No. R-26 172 Subdocket B, dated November 3, 2006, and further amended by the April 26, 2007 General Order, and the amendments approved by the Commission at its October 15, 2008 Business & Executive Meeting and now in General Order, Docket No. R-26 172, Subdocket C dated October 29, 2008.

[8]General Order, Docket No. R-26 172, Subdocket C dated October 29, 2008., at p. 5.

[9]*Id.*

[10]*Id.* at pp. 6-7.

[11]*Id.* at p. 8

[12]*Id.* at pp. 9-10.

Q HOW DOES THE PROCESS WORK IF A UTILITY WANTS TO HAVE A SELF-BUILD UNIT CONSIDERED AS PART OF THE EVALUATION OF OFFERS?

A If the utility wishes to have a self-build offer considered, it must identify, describe and provide the economics associated with its self-build offer prior to the time that the market is solicited for responses. This ensures that the process is fair and that the utility cannot "game" the selection process by changing its proposal after it has seen the offers received through the RFP process. It also must retain the services of an independent monitor to ensure that the evaluation process is conducted fairly.

Q HAS THE LPSC GENERALLY FOLLOWED THE APPROACH DESCRIBED IN THE ABOVE-CITED EXPERT?

A Yes. The LPSC generally has followed this procedure when a utility has identified a need for new capacity. Recently, for example, this process was followed with respect to NM6, the St. Charles Power Station and the Lake Charles Power Station.

Q IN RESPONDING TO APC 2-6, ENO REFERENCES COUNCIL RESOLUTION R-15-524 WHICH DIRECTED ENO TO "USE REASONABLE DILIGENT EFFORTS TO PURSUE THE DEVELOPMENT OF AT LEAST 120 MW OF NEW-BUILD PEAKING GENERATION CAPACITY WITHIN THE CITY OF NEW ORLEANS," AND "TO USE DILIGENT EFFORTS TO HAVE AT LEAST ONE FUTURE GENERATION FACILITY LOCATED IN THE CITY OF NEW ORLEANS." SHOULD THAT LANGUAGE PRECLUDE CONSIDERATION OF CAPACITY THAT IS NOT LOCATED WITHIN THE CITY OF NEW ORLEANS?

A No, it should not. If there are viable alternatives that are not within the City of New Orleans, but are otherwise attractive, ENO should identify them and present them to the Council, along with other options that may be located within the City limits. The Council can then make a decision. On the other hand, if such options are not presented to the Council, the Council would never have the chance to make that decision, which could result in a detriment to the customers of ENO.

Q WHAT IS YOUR RECOMMENDATION WITH RESPECT TO APPROVAL OF CONSTRUCTION OF THE NOPS UNIT?

A My recommendation is that the Council not approve the construction of the NOPS unit, or any other capacity, at this time. Rather, the Council should require ENO to conduct a robust competitive solicitation in the form of an RFP to determine if capacity from existing or other proposed units might be more attractive from the perspective of the customers of ENO than the proposed self-build NOPS unit, or the smaller new capacity increment that I recommend.

COST RECOVERY PROPOSALS

Q WHAT DOES ENO PROPOSE AS A MEANS OF RECOVERING THE NON-FUEL REVENUE REQUIREMENT FOR NOPS?

A This is discussed in the testimony of ENO witness Orlando Todd, beginning at page 7. He notes that the Company expects the Combined Rate Case described in Paragraph 8 of the Algiers Transaction Agreement in Principle ("AIP") approved in Council Resolution R-15-194 dated May 14, 2015 to be completed prior to the time that NOPS (if approved) would enter commercial operation – which is expected to be the second half of 2019. Accordingly, ENO's expectation is that NOPS would not achieve commercial operation until after the conclusion of this Combined Rate Case.

As a result of this timing, ENO proposes that the non-fuel revenue requirement associated with NOPS be recovered through the PPCACR Rider, or a modified version of that Rider, until such time as there is a subsequent rate case or an annual review in an FRP proceeding.

Q WOULD IT BE APPROPRIATE TO RECOVER THE NON-FUEL REVENUE REQUIREMENTS ASSOCIATED WITH NOPS, OR ANY OTHER GENERATION RESOURCE, USING THE PPCACR RIDER?

A No. The PPCACR Rider grew out of a decision in the NM6 case. Essentially, the AIP and the Resolution adopted in the NM6 case provided for recovery of the non-fuel revenue requirements of NM6 on a kWh basis, but only until such time as the rate case contemplated by the NM6 docket was processed and the cost brought into base rates. That intended rate case never happened, and, in the meantime, the AIP and Resolution in the Algiers docket (referenced above) eclipsed those plans and moved the date of the next rate case into the 2018/2019 time frame.

Then, along came UPP and the Council decided to continue using the same non cost-based rider, namely an equal amount per kWh from all classes.

Regardless of whether the Rider is called PPCACR or something else, recovery of non-fuel revenue requirements associated with generation facility investment or generation PPAs by means of a kWh mechanism is not cost-based and is outside the mainstream of cost recovery practices.

Q HOW SHOULD THE NON-FUEL REVENUE REQUIREMENTS OF THE NM6 PPA AND UPS HAVE BEEN COLLECTED FROM CUSTOMERS?

A If there were a class cost of service study available, that should have formed the basis for determining how to apportion those costs among customer classes. These costs would have been allocated to customer classes using a demand-based allocator that recognized the fixed cost nature of that revenue equipment, similar to what was used in ENO's previous rate case, Docket No. UD-08-03.

In the absence of a class cost of service study, the appropriate approach would be to apply a uniform percentage factor to the base rate revenues of all customer classes. This would essentially preserve existing rate relationships, and would be consistent with generally accepted cost of service principles.

Q IN THE LPSC PROCEEDINGS, HOW DID ELL ALLOCATE THE COST OF ITS OWNERSHIP SHARE OF NM6 AND ITS OWNERSHIP OF UPP UNITS 3 AND 4 AMONG ITS CUSTOMER CLASSES?

A As to both its ownership share of NM6 and UPP Units 3 and 4, ELL collected the non-fuel revenue requirements by applying a uniform percentage increase to the base rate revenues of all customer classes, except for the portion of customer base rates that were either for interruptible power service or were special contracts.

Q HOW WERE THE NON-FUEL REVENUE REQUIREMENTS ASSOCIATED WITH NM6 THAT WERE ALLOCATED TO ELL'S SERVICE TERRITORY IN ALGIERS COLLECTED FROM CUSTOMERS?

A ELL allocated these revenue requirements among the Algiers customer classes using a cost-based approach. Specifically, it used a factor based on the contribution of each class to the 12 monthly system peak demands.

Q HOW HAS THE APPLICATION OF THE PPCACR IMPACTED AIR PRODUCTS?

A The recovery of the non-fuel revenue requirements of the NM6 PPA and UPS on a per kWh basis has resulted in significant overcharges to Air Products.

Because a kWh allocation charges Air Products approximately 3.2% of the cost being allocated, whereas a more appropriate allocation on base rates would charge Air Products approximately 1.2% of the cost being allocated, the overcharge to Air Products from application of the kWh-based Rider is significant. As a result, Air Products is being allocated about $2.5 million per year of cost for these two resources instead of a more appropriate allocation of approximately $1 million, resulting in an annual overcharge of approximately $1.5 million. I have attached as Exhibit MEB-2 my direct testimony of September 26, 2016 in Docket UD-16-03 (public version), which explains the overcharge in more detail.

Q IF THIS SAME MECHANISM WERE APPLIED TO REVENUE REQUIREMENTS ASSOCIATED WITH NOPS, WHAT WOULD BE THE RESULT?

A Were this non cost-based allocation applied to the $33 million annual revenue requirement for NOPS, Air Products would be allocated approximately $1.06 million of cost, instead of approximately $400,000 of cost if the 1.2% base rate allocation factor were used. This would result in an annual overcharge to Air Products of about $660,000.

Q IF NOPS, OR ANOTHER FACILITY, IS APPROVED AND ENTERS SERVICE IN BETWEEN RATE CASES, HOW SHOULD THE NON-FUEL REVENUE REQUIREMENT BE TREATED?

A Assuming NOPS, or another facility, enters service between rate cases, the non-fuel cost could be capitalized and deferred for consideration in a subsequent rate case or annual review as a part of an FRP. This approach would allow ENO ultimately to recover all of its prudently incurred costs, and avoid having to adjust customer rates until a full analysis, including a prudency review, can be conducted and evaluated in the context of a regular rate case or an annual review as part of an FRP.

Q DOES THIS CONCLUDE YOUR DIRECT TESTIMONY?

A Yes, it does.

Qualifications of Maurice Brubaker

Q PLEASE STATE YOUR NAME AND BUSINESS ADDRESS.

A Maurice Brubaker. My business address is 16690 Swingley Ridge Road, Suite 140, Chesterfield, MO 63017.

Q PLEASE STATE YOUR OCCUPATION.

A I am a consultant in the field of public utility regulation and President of the firm of Brubaker & Associates, Inc. ("BAI"), energy, economic and regulatory consultants.

Q PLEASE SUMMARIZE YOUR EDUCATIONAL BACKGROUND AND EXPERIENCE.

A I was graduated from the University of Missouri in 1965, with a Bachelor's Degree in Electrical Engineering. Subsequent to graduation I was employed by the Utilities Section of the Engineering and Technology Division of Esso Research and Engineering Corporation of Morristown, New Jersey, a subsidiary of Standard Oil of New Jersey.

In the Fall of 1965, I enrolled in the Graduate School of Business at Washington University in St. Louis, Missouri. I was graduated in June of 1967 with the Degree of Master of Business Administration. My major field was finance.

From March of 1966 until March of 1970, I was employed by Emerson Electric Company in St. Louis. During this time I pursued the Degree of Master of Science in Engineering at Washington University, which I received in June, 1970.

In March of 1970, I joined the firm of Drazen Associates, Inc., of St. Louis, Missouri. Since that time I have been engaged in the preparation of numerous studies relating to electric, gas, and water utilities. These studies have included analyses of the cost to serve various types of customers, the design of rates for utility services, cost forecasts, cogeneration rates and determinations of rate base and operating income. I have also addressed utility resource planning principles and plans, reviewed capacity additions to determine whether or not they were used and useful, addressed demand-side management issues independently and as part of least cost planning, and have reviewed utility determinations of the need for capacity additions and/or purchased power to determine the consistency of such plans with least cost planning principles. I have also testified about the prudency of the actions undertaken by utilities to meet the needs of their customers in the wholesale power markets and have recommended disallowances of costs where such actions were deemed imprudent.

I have testified before the Federal Energy Regulatory Commission ("FERC"), various courts and legislatures, and the state regulatory commissions of Alabama, Arizona, Arkansas, California, Colorado, Connecticut, Delaware, Florida, Georgia, Guam, Hawaii, Illinois, Indiana, Iowa, Kentucky, Louisiana, Michigan, Missouri, Nevada, New Jersey, New Mexico, New York, North Carolina, Ohio, Pennsylvania, Rhode Island, South Carolina, South Dakota, Texas, Utah, Virginia, West Virginia, Wisconsin and Wyoming.

The firm of Drazen-Brubaker & Associates, Inc. was incorporated in 1972 and assumed the utility rate and economic consulting activities of Drazen Associates, Inc., founded in 1937. In April, 1995 the firm of Brubaker & Associates, Inc. was formed.

It includes most of the former DBA principals and staff. Our staff includes consultants with backgrounds in accounting, engineering, economics, mathematics, computer science and business.

Brubaker & Associates, Inc. and its predecessor firm has participated in over 700 major utility rate and other cases and statewide generic investigations before utility regulatory commissions in 40 states, involving electric, gas, water, and steam rates and other issues. Cases in which the firm has been involved have included more than 80 of the 100 largest electric utilities and over 30 gas distribution companies and pipelines.

An increasing portion of the firm's activities is concentrated in the areas of competitive procurement. While the firm has always assisted its clients in negotiating contracts for utility services in the regulated environment, increasingly there are opportunities for certain customers to acquire power on a competitive basis from a supplier other than its traditional electric utility. The firm assists clients in identifying and evaluating purchased power options, conducts RFPs and negotiates with suppliers for the acquisition and delivery of supplies. We have prepared option studies and/or conducted RFPs for competitive acquisition of power supply for industrial and other end-use customers throughout the Unites States and in Canada, involving total needs in excess of 3,000 megawatts. The firm is also an associate member of the Electric Reliability Council of Texas and a licensed electricity aggregator in the State of Texas.

In addition to our main office in St. Louis, the firm has branch offices in Phoenix, Arizona and Corpus Christi, Texas.

ENTERGY NEW ORLEANS, INC.
CITY OF NEW ORLEANS
Docket No. UD-16-02

Response of: Entergy New Orleans, Inc.
to the Second Set of Data Requests
of Requesting Party: Air Products and
Chemicals, Inc.

Question No.: APC 2-6 Part No.: Addendum:

Question:

As a part of the process which resulted in the selection of the NOPS unit, was a Request for Proposals ("RFP") issued to solicit from other entities:

1. Resources offered under a Purchased Power Agreement?
2. Offers to sell existing assets to ENO?
3. Offers to construct the necessary capacity and sell the asset to ENO?
4. Offers to construct the necessary capacity and sell the output to ENO under a Purchased Power Agreement?

Response:

Through the public IRP process the Company clearly identified a long-term need for local peaking and reserve capacity resources to help address the deactivation of Michoud Units 2 and 3. Once that need was established, the process that led to selection of the Mitsubishi 501 GAC combustion turbine included a competitive solicitation for Engineering, Procurement and Construction services, the largest single component of the total estimated project cost. The Company did not solicit proposals for, or receive unsolicited offers from, resources offered for sale (i.e. asset or Purchased Power Agreement, existing or new) to ENO. In using this approach, the Company was complying with Council Resolution R-15-524, which directed ENO to "use reasonable diligent efforts to pursue the development of at least 120 MW of new-build peaking generation capacity within the City of New Orleans." That Resolution also emphasizes a commitment for ENO "to use diligent efforts to have at least one future generation facility located in the City of New Orleans." The Company is not aware of any existing or proposed new-build peaking resources in the City of New Orleans other than NOPS.

BEFORE THE
COUNCIL OF THE CITY OF NEW ORLEANS

APPLICATION OF ENTERGY NEW ORLEANS, INC. FOR APPROVAL TO RESTRUCTURE	**)))**	**DOCKET NO. UD-16-03**

Direct Testimony of

Maurice Brubaker

On behalf of

Air Products and Chemicals, Inc.

PUBLIC VERSION

September 26, 2016

BRUBAKER & ASSOCIATES, INC.

BEFORE THE
COUNCIL OF THE CITY OF NEW ORLEANS

APPLICATION OF ENTERGY NEW ORLEANS, INC. FOR APPROVAL TO RESTRUCTURE	)))	**DOCKET NO. UD-16-03**

STATE OF MISSOURI	)	
	)	**SS**
COUNTY OF ST. LOUIS	)	

Affidavit of Maurice Brubaker

Maurice Brubaker, being first duly sworn, on his oath states:

1. My name is Maurice Brubaker. I am a consultant with Brubaker & Associates, Inc., having its principal place of business at 16690 Swingley Ridge Road, Suite 140, Chesterfield, Missouri 63017. We have been retained by Air Products and Chemicals, Inc. in this proceeding on their behalf.

2. Attached hereto and made a part hereof for all purposes is my direct testimony which was prepared in written form for introduction into evidence in the Council of the City of New Orleans Docket No. UD-16-03.

3. I hereby swear and affirm that the testimony is true and correct and that it shows the matters and things that it purports to show.

M E Brubaker
Maurice Brubaker

Subscribed and sworn to before me this 23rd day of September, 2016.

TAMMY S. KLOSSNER
Notary Public - Notary Seal
STATE OF MISSOURI
St. Charles County
My Commission Expires: Mar. 18, 2019
Commission # 15024862

Tammy S Klossner
Notary Public

BEFORE THE
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<u>Direct Testimony of Maurice Brubaker</u>

Q PLEASE STATE YOUR NAME AND BUSINESS ADDRESS.

A Maurice Brubaker. My business address is 16690 Swingley Ridge Road, Suite 140, Chesterfield, MO 63017.

Q WHAT IS YOUR OCCUPATION?

A I am a consultant in the field of public utility regulation and President of Brubaker & Associates, Inc., energy, economic and regulatory consultants.

Q PLEASE DESCRIBE YOUR EDUCATIONAL BACKGROUND AND EXPERIENCE.

A This information is included in Appendix A to my testimony.

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A I am appearing on behalf of Air Products and Chemicals, Inc. ("Air Products"), a large industrial customer taking service from Entergy New Orleans, Inc. ("ENO"). Air Products has been a customer of ENO, and predecessor company New Orleans Public Service, Inc., since 1965. Its load is primarily interruptible, and it is the only customer taking service under the LIS rate.

The Air Products facility sustained significant damage as a result of Hurricane Katrina. Air Products spent in excess of $80 million to rebuild the facility and to maintain its presence in New Orleans.

Q HAVE YOU REVIEWED THE APPLICATION, TESTIMONY, EXHIBITS AND OTHER MATERIAL FILED IN THIS PROCEEDING?

A Yes. I have reviewed both the public and highly sensitive protected material ("HSPM") testimony and the responses to data requests.

SUMMARY

Q WHAT ARE YOUR FINDINGS AND RECOMMENDATIONS?

A First, I find that ENO's proposal to provide five restructuring credits of $5 million each during the years 2016 through 2020 is insufficient, and that ENO should provide more credits to customers.

Second, I find that the per kWh allocation of capacity costs associated with the Ninemile 6 Unit PPA ("NM6 PPA") and the capacity cost associated with Union Power Station Power Block No. 1 ("UPS") disproportionately burdens Air Products. Its costs have gone up by more than $200,000 per month, or $2.5 million per year. This is about a 90% increase in base rates. This increase exceeds a reasonable allocation by at least $125,000 per month, or $1.5 million per year.

I also find that it would be appropriate to utilize a portion of the annual credits to mitigate the impact on Air Products resulting from the mis-allocation of the NM6

PPA and UPS by providing monthly credits to Air Products at the rate of $125,000 per month to partially mitigate this impact.

In addition, I find that because of certain agreements made by ENO, it appears unlikely that any permanent adjustment can be made prior to the 2018 rate case, so it is imperative that the mitigation described in this testimony begin now. Those credits should be applied beginning with the date when Air Products was first charged costs associated with UPS, and continue until an appropriate capacity cost allocation can be made in a rate case.

I recommend that the proposed reorganization not be approved unless these two items are a part of it; namely: (1) larger benefits to all customers; and (2) a separate credit to Air Products in the amount of $125,000 per month to partially mitigate the excess costs charged to Air Products under the PPCACR.

CUSTOMER CREDITS

Q ARE YOU FAMILIAR WITH ENO'S PROPOSAL TO PROVIDE CUSTOMERS WITH CREDITS OF $5 MILLION IN 2016 AND IN 2017 IF THE COUNCIL APPROVES ITS APPLICATION BY DECEMBER 31, 2016, AND ADDITIONAL CREDITS OF $5 MILLION IN EACH OF THE YEARS 2018, 2019 AND 2020 IF THE FEDERAL ENERGY REGULATORY COMMISSION ("FERC") APPROVES IT BY DECEMBER 31, 2018?

A Yes, I am.

Q DO YOU HAVE ANY COMMENTS WITH RESPECT TO THESE CREDITS?

A Yes, I do.

Q DO YOU BELIEVE THAT THESE AMOUNTS ARE ADEQUATE?

A No. For reasons which I will discuss below, I believe that customers should be entitled to larger benefits.

BEGINNING OF HSPM MATERIAL

END OF HSPM MATERIAL

IMPACT MITIGATION FOR RATE LIS

Q HOW ARE THE CAPACITY COSTS ASSOCIATED WITH THE NM6 PPA AND UPS BEING COLLECTED FROM ENO'S CUSTOMERS?

A Both are being collected through a mechanism that is part of the Purchased Power and Capacity Acquisition Cost Recovery Rider ("PPCACR").

Q WHAT IS THE MECHANISM BY WHICH THE PPCACR COLLECTS THESE CAPACITY COSTS?

A The operation of the PPCACR is to charge customers for these costs as a uniform amount per kWh regardless of customer class or rate schedule, with only a minor difference because of a slightly lower loss factor for customers taking service at the transmission voltage level.

Q IS THIS HOW GENERATION CAPACITY COSTS TYPICALLY ARE ALLOCATED AND COLLECTED FROM CUSTOMERS?

A No. Typically these types of cost are allocated to customers in a cost of service study using some measure of customer demand, rather than kWh. This approach allows for full consideration of the load characteristics of all customer classes. One of the most important for the purposes of allocating generation capacity costs is differences in class load factor. Load factor is a measure of how intensively a customer utilizes the capacity provided to serve its needs. If a customer had a 100% load factor, its take from the system would be approximately the same every hour of the year. A customer with a 50% load factor would be taking from the system at a much lower rate most of the time.

A customer with a high load factor uses the system more efficiently, and is less costly to serve than a lower load factor customer. A high load factor customer might, for example, only use 1% of the system's capacity, but would purchase 2% or 3% of the energy. A low load factor customer would have the reverse characteristics, perhaps using 3% of the utility system's capacity, but only purchasing 1% of its energy.

What this demonstrates is that allocation of capacity cost to customer classes on a kWh basis will over-allocate costs to high load factor customers, and under-allocate costs to low load factor customers.

Q DOES AIR PRODUCTS HAVE A HIGH LOAD FACTOR?

A Yes. Air Products' average monthly load factor is approximately 80%. This is well above average.

Q ARE THERE ANY CHARACTERISTICS OF THE AIR PRODUCTS LOAD, OTHER THAN ITS HIGH LOAD FACTOR, THAT ARE UNIQUE AND SET IT APART FROM OTHER CUSTOMERS?

A Yes. Approximately 83% of Air Products' load is interruptible. Interruptible service is of lower quality than firm service, and is much less costly to serve because ENO does not have to include the interruptible load in its generation resource planning. In fact, in generation resource planning, ENO treats the Air Products interruptible load as a "load modifying resource" and adds it to its own generation resources and PPAs to determine its total available resources.

Q OVERALL, WHAT CONCLUSION SHOULD BE DRAWN FROM THE FACT THAT AIR PRODUCTS OPERATES AT A VERY HIGH LOAD FACTOR AND A SUBSTANTIAL PERCENTAGE OF ITS LOAD IS INTERRUPTIBLE?

A Overall, this means that the generation capacity cost required to serve a kWh to Air Products is substantially less than the cost to supply a kWh to other customers on the system who are neither high load factor, nor interruptible.[1]

Q IN THE ABSENCE OF A COST OF SERVICE STUDY, HOW SHOULD CAPACITY COSTS ASSOCIATED WITH GENERATION BE ALLOCATED AND RECOVERED FROM CUSTOMERS?

A Instead of inappropriately allocating generation capacity costs on an energy basis, a much more logical approach would be to allocate them on class base rate revenues. This approach is how ELL and the two predecessor companies have handled the allocation of these types of costs in their Formula Rate Plan ("FRP") filings. While not as precise as using a cost of service study, it is a much more reasonable proxy than using class kWh.

[1] Evidence from ENO's most recent rate case, Docket No. UD-08-03, clearly shows the difference in capacity cost responsibility and energy responsibility. The direct testimony of ENO witness Michael Considine included a cost of service study and the supporting allocation factors. Exhibit ENO_(MPC 2-E07), page 1, summarized the allocation factors. At that time (2007), Air Products' energy allocation factor was 5.86%, but its demand allocation for purposes of production capacity was 1.19%. Because of changes in overall ENO sales and demand and in Air Products' energy purchases and demand, the absolute values of the numbers have changed since then, but the key fact that remains is that Air Products' capacity responsibility factor is significantly less that its energy responsibility factor.

Q HOW MUCH OF AN INCREASE HAS AIR PRODUCTS EXPERIENCED BECAUSE OF THE CHARGING OF NM6 PPA AND UPS CAPACITY COSTS?

A Air Products' costs have increased more than $200,000 per month, or $2.5 million per year. This is a 90% increase on base rates.

Q HAVE YOU MADE ANY ESTIMATES OF THE ALLOCATION FACTORS AND ADVERSE IMPACT ON THE LIS RATE?

A Yes. Because of the fast time schedule for this docket, I used data from the FERC Form 1 report for 2015 to approximate the allocations. ENO easily can provide more precise numbers.

Q WHAT DID YOUR ANALYSIS SHOW?

A Air Products on the LIS rate consumes approximately 3.2% of ENO's energy. Approximating base rate revenue by subtracting FAC revenues from total revenues shows that the LIS rate represents only about 1.2% of base rate revenues. Thus, an energy-based collection allocates almost three times as much cost to LIS as would a base rate revenue allocator, and produces a significant distortion in cost allocation.

Q LOOKING AT THE COST ALLOCATION ON AN ANNUAL BASIS, APPROXIMATELY HOW MUCH COST OF UPS IS ALLOCATED TO AIR PRODUCTS, AND HOW MUCH WOULD BE ALLOCATED TO IT USING BASE RATE REVENUES?

A The annual capacity revenue requirement for UPS is about $54 million, so 3.2% of that amount is $1.728 million. The base rate revenue percentage of 1.2% would allocate $648,000, and subtracting one from the other indicates that the annual over-allocation of costs to Air Products is about $1.080 million.

Q WHAT ARE THE COMPARABLE NUMBERS FOR THE NM6 PPA?

A I estimate that the revenue requirement for the NM6 PPA is about $23 million, so 3.2% allocated on a kWh basis would be about $736,000. On the other hand, allocating on a base revenue basis, at 1.2%, would allocate $276,000. The difference is $460,000 as the excess allocation to Air Products.

Adding the NM6 PPA and UPS together, the amount of over-allocation to Air Products that results from using a kWh allocation, rather than a more cost-based allocation, is slightly more than $1.5 million per year.

Q COULD THESE DISTORTIONS BE CORRECTED IN A RATE CASE?

A Yes, but likely on a prospective basis from the time of a rate case. However, it is my understanding that a rate case may not occur before 2018, by which time Air Products would have paid many million dollars more in electric costs than it should unless some mitigation takes place now.

Q WHAT COULD THE COUNCIL DO AT THIS POINT IN TIME TO MITIGATE THIS PROBLEM IF IT DOES NOT WANT TO MODIFY THE PPCACR?

A As an approach that would not require the PPCACR to be modified, the Council could use a part of the $5 million annual credits, that ENO is going to be providing to customers as a result of its restructuring, as an offset to the misallocation occurring under the energy-based PPCACR. Assigning to Air Products each year $1.5 million of the $5 million credit ($125,000 per month) would mitigate this problem from the time that it is applied until such time as a permanent adjustment can be made in a rate case.

Q DOES THIS CONCLUDE YOUR DIRECT TESTIMONY?

A Yes, it does.

Qualifications of Maurice Brubaker

Q PLEASE STATE YOUR NAME AND BUSINESS ADDRESS.

A Maurice Brubaker. My business address is 16690 Swingley Ridge Road, Suite 140, Chesterfield, MO 63017.

Q PLEASE STATE YOUR OCCUPATION.

A I am a consultant in the field of public utility regulation and President of the firm of Brubaker & Associates, Inc. ("BAI"), energy, economic and regulatory consultants.

Q PLEASE SUMMARIZE YOUR EDUCATIONAL BACKGROUND AND EXPERIENCE.

A I was graduated from the University of Missouri in 1965, with a Bachelor's Degree in Electrical Engineering. Subsequent to graduation I was employed by the Utilities Section of the Engineering and Technology Division of Esso Research and Engineering Corporation of Morristown, New Jersey, a subsidiary of Standard Oil of New Jersey.

In the Fall of 1965, I enrolled in the Graduate School of Business at Washington University in St. Louis, Missouri. I was graduated in June of 1967 with the Degree of Master of Business Administration. My major field was finance.

From March of 1966 until March of 1970, I was employed by Emerson Electric Company in St. Louis. During this time I pursued the Degree of Master of Science in Engineering at Washington University, which I received in June, 1970.

In March of 1970, I joined the firm of Drazen Associates, Inc., of St. Louis, Missouri. Since that time I have been engaged in the preparation of numerous studies relating to electric, gas, and water utilities. These studies have included analyses of the cost to serve various types of customers, the design of rates for utility services, cost forecasts, cogeneration rates and determinations of rate base and operating income. I have also addressed utility resource planning principles and plans, reviewed capacity additions to determine whether or not they were used and useful, addressed demand-side management issues independently and as part of least cost planning, and have reviewed utility determinations of the need for capacity additions and/or purchased power to determine the consistency of such plans with least cost planning principles. I have also testified about the prudency of the actions undertaken by utilities to meet the needs of their customers in the wholesale power markets and have recommended disallowances of costs where such actions were deemed imprudent.

I have testified before the Federal Energy Regulatory Commission ("FERC"), various courts and legislatures, and the state regulatory commissions of Alabama, Arizona, Arkansas, California, Colorado, Connecticut, Delaware, Florida, Georgia, Guam, Hawaii, Illinois, Indiana, Iowa, Kentucky, Louisiana, Michigan, Missouri, Nevada, New Jersey, New Mexico, New York, North Carolina, Ohio, Pennsylvania, Rhode Island, South Carolina, South Dakota, Texas, Utah, Virginia, West Virginia, Wisconsin and Wyoming.

The firm of Drazen-Brubaker & Associates, Inc. was incorporated in 1972 and assumed the utility rate and economic consulting activities of Drazen Associates, Inc., founded in 1937. In April, 1995 the firm of Brubaker & Associates, Inc. was formed.

It includes most of the former DBA principals and staff. Our staff includes consultants with backgrounds in accounting, engineering, economics, mathematics, computer science and business.

Brubaker & Associates, Inc. and its predecessor firm has participated in over 700 major utility rate and other cases and statewide generic investigations before utility regulatory commissions in 40 states, involving electric, gas, water, and steam rates and other issues. Cases in which the firm has been involved have included more than 80 of the 100 largest electric utilities and over 30 gas distribution companies and pipelines.

An increasing portion of the firm's activities is concentrated in the areas of competitive procurement. While the firm has always assisted its clients in negotiating contracts for utility services in the regulated environment, increasingly there are opportunities for certain customers to acquire power on a competitive basis from a supplier other than its traditional electric utility. The firm assists clients in identifying and evaluating purchased power options, conducts RFPs and negotiates with suppliers for the acquisition and delivery of supplies. We have prepared option studies and/or conducted RFPs for competitive acquisition of power supply for industrial and other end-use customers throughout the Unites States and in Canada, involving total needs in excess of 3,000 megawatts. The firm is also an associate member of the Electric Reliability Council of Texas and a licensed electricity aggregator in the State of Texas.

In addition to our main office in St. Louis, the firm has branch offices in Phoenix, Arizona and Corpus Christi, Texas.

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