

**Duke Energy Kentucky
Case No. 2019-00271
Staff's Second Set Data Requests
Date Received: October 11, 2019**

**PUBLIC STAFF-DR-02-144
(As to Attachment 2 only)**

REQUEST:

Refer to the Setser Testimony, page 29, lines 9- 13. Provide a copy of the market research referenced in the testimony showing that the costs of common business functions that are allocated to Duke Kentucky and shared among all affiliated companies result in a lower overall cost to Duke Kentucky than if it had to maintain separate functions.

RESPONSE:

CONFIDENTIAL PROPRIETARY TRADE SECRET (As to Attachment 2 only)

Attached as STAFF-DR-02-144 Attachment 1 is the public version of the most recent DEBs Market Study which was filed in NC. This study would be applicable to Kentucky. Subsequent to this study the tax function has been largely outsourced to EY, resulting in additional savings. In addition, attached as STAFF-DR-02-144 Confidential Attachment 2 is a more detailed analysis of service company costs and showed that functional costs were lower than competitors or market.

PERSON RESPONSIBLE: Jeffrey R. Setser



Kendrick C. Fentress
Associate General Counsel

Mailing Address:
NCRH 20 / P.O. Box 1551
Raleigh, NC 27602

o: 919.546.6733
f: 919.546.2694

Kendrick.Fentress@duke-energy.com

January 13, 2017

VIA ELECTRONIC FILING

M. Lynn Jarvis
Chief Clerk
North Carolina Utilities Commission
4325 Mail Service Center
Raleigh, North Carolina 27699-4300

**RE: Duke Energy Carolinas, LLC and Duke Energy Progress, LLC
Progress Report on Market Competitiveness Study
Docket No. E-7, Sub 986D**

Dear Ms. Jarvis:

Pursuant to the Commission's August 4, 2016 *Order Requesting Additional Information Regarding Studies* and its December 28, 2016 *Order Granting Extension of Time*, enclosed please find the Market Competitiveness Study (the "Study") of Duke Energy Carolinas, LLC ("DEC") and Duke Energy Progress, LLC ("DEP") (collectively, the "Companies") required by Regulatory Condition No. 5.2(b) in connection with the referenced matter. Portions of the Study contain confidential, proprietary and competitively sensitive information, and are being filed under seal. The Companies respectfully request protection of this information pursuant to N.C. Gen. Stat. §132-1.2.

If you have any questions, please let me know.

Sincerely,

A handwritten signature in black ink that reads "Kendrick C. Fentress".

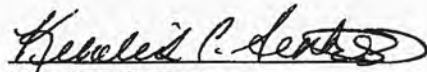
Kendrick C. Fentress

cc: Parties of Record

CERTIFICATE OF SERVICE

I certify that a copy of Duke Energy Carolinas, LLC's and Duke Energy Progress, LLC's Market Competitiveness Study, in Docket No. E-7, Sub 986D, has been served by electronic mail, hand delivery, or by depositing a copy in the United States mail, 1st Class Postage Prepaid, properly addressed to parties of record.

This the 13th day of January, 2017.



Kendrick C. Fentress
Associate General Counsel
Duke Energy Corporation
P.O. Box 1551/ NCRH 20
Raleigh, North Carolina 27602
Tel: 919.546.6733
kendrick.fentress@duke-energy.com

*Attorney for Duke Energy Carolinas, LLC
and Duke Energy Progress, LLC*



Duke Energy Market Study

2016 Market Study Assessment Guidelines

Applicability: Duke Energy Business Services (DEBS), Duke Energy Carolinas (DEC), Duke Energy Progress (DEP)

Originator: Ethics & Compliance, Corporate Compliance, James Hollingsworth

Approval: DEC/DEP Rates and Regulatory

Effective Date: 05/01/2016

Revision Date: 05/12/2016

Applicable Regulatory Condition

Docket No. E-2, Sub 998

Docket No. E-7, Sub 986

5.2 Procurement or Provision of Goods and Services by DEC or DEP to or from Affiliates or Nonpublic Utility Operations.

Except as to transactions between DEC and DEP pursuant to filed and approved service agreements and lists of services, and subject to additional provisions set forth in the Code of Conduct, DEC and DEP shall take the following actions in connection with procuring goods and services for their respective utility operations from Affiliates or Nonpublic Utility Operations and providing goods and services to Affiliates or Nonpublic Utility Operations:

(a) DEC and DEP shall seek out and buy all goods and services from the lowest cost qualified provider of comparable goods and services, and shall have the burden of proving that any and all goods and services procured from their Utility Affiliates, Non-Utility Affiliates, and Nonpublic Utility Operations have been procured on terms and conditions comparable to the most favorable terms and conditions reasonably available in the relevant market, which shall include a showing that comparable goods or services could not have been procured at a lower price from qualified nonAffiliate sources or that neither DEC nor DEP could have provided the services or goods for itself on the same basis at a lower cost. To this end, no less than every four years DEC and DEP shall perform comprehensive, non-solicitation based assessments at a functional level of the market competitiveness of the costs for goods and services they receive from a Utility Affiliate, DEBS, PESC, another Non-Utility Affiliate, and a Nonpublic Utility Operation, including periodic testing of services being provided internally or obtained individually through outside providers. To the extent the Commission approves the procurement or provision of goods and services between and



Duke Energy Market Study

among DEC, DEP, and the Utility Affiliates, those goods and services may be provided at the supplier's Fully Distributed Cost.

(b) To the extent they are allowed to provide such goods and services, DEC and DEP shall have the burden of proving that all goods and services provided by either of them to Duke Energy, a Non-Utility Affiliate, any other Affiliate, or a Nonpublic Utility Operation have been provided on the terms and conditions comparable to the most favorable terms and conditions reasonably available in the market, which shall include a showing that such goods or services have been provided at the higher of cost or market price. To this end, no less than every four years DEC and DEP shall perform comprehensive, non-solicitation based assessments at a functional level of the market competitiveness of the costs for goods and services provided by either of them to a Utility Affiliate, DEBS, another Non-Utility Affiliate, any other Affiliate, and a Nonpublic Utility Operation.

(c) The periodic assessments required by subdivisions (a) and (b) of this subsection may take into consideration qualitative as well as quantitative factors. To the extent that comparable goods or services provided to DEC or DEP or by DEC or DEP are not commercially available, this Regulatory Condition shall not apply.

Statement of Purpose and Philosophy:

The purpose of this market study analysis is to provide adequate evidence of compliance with Regulatory Condition 5.2 and the Vantage Audit Recommendation (III-R1) (Issued, March 29, 2016):

- *Which states, DEC and DEP should be required to develop a process for identifying those services that have an open market competitor and perform comprehensive assessments of the competitiveness of such services as required by Regulatory Condition No. 5.2 (shown on page 1)*

Each process provides details of the cost-benefit analysis performed by service company functions provided to DEC/DEP and an explanation of how costs are compared against an open market competitor to ensure the most favorable terms and conditions for the utility.

Core Utility Functions are defined in Regulatory Condition 5.3 and are considered Core Competencies of Duke Energy. These services are critical to the operations of the utilities and are not generally available on the open market due to their nature. Therefore, they are not included in this market review process. They are included, however, in the enterprise-wide CORE salary benchmark review process, discussed herein.



Duke Energy Market Study

The Duke Energy Corporate Compliance team partnered with Legal, Finance, and 21 other DEBS functions to provide methodology and process documentation for assessing the cost of services provided by DEBS to DEC and DEP respectively.

Expectations:

To capture detail and documentation for the following processes:

- ***CORE (Compensation Ongoing Review & Evaluation) Process***
- ***DEBS Functions Market Assessment Process Documentation and Evidence***

2016 Duke Energy Market Study Documentation and Evidence

1. *CORE (Compensation Ongoing Review & Evaluation) Process:*

CORE is identified as being the internal vehicle to compare market salary competitiveness to Duke Energy's compensation salary bands across the enterprise for FTE's:

The CORE Process:

- The Duke Energy Compensation team identifies pay for specific types of work to benchmark salary range bands.
- The median salary survey pay of similar companies is benchmarked to establish a salary range for each job title.
- Salary grade changes are made to align job title compensation with current market conditions.
- The process is performed across the enterprise by the HR Compensation Department on a revolving three-year schedule.

Documents to be included in Market Study Report for CORE:

- CORE Process Guidelines
- 3 year schedule showing the timeline for the review of Benchmarks across the 21 DEBS Functions

2. *DEBS Functions Market Assessment Process Documentation and Evidence*

The following DEBS Services are listed on the approved services list for DEC and DEP and will be reviewed in the scope of the Market Study Assessment:



Duke Energy Market Study

<i>Service</i>	<i>Official Description or Exception List</i>
Accounting	Maintenance of financial books and records; preparation of financial and statistical reports and tax filings; supervision regarding compliance with related laws and regulations.
Environmental Health and Safety	Establishment of programs, policies and procedures, and governance framework for environmental and health and safety programs and compliance; provision of compliance support. Services related to the following functions: <ul style="list-style-type: none"> • Health & Safety • Duke Energy International EHS • EHS Risk Governance and Change Management • CCP Support • Meteorology • Env Svcs Midwest • Env Science • Env Projects and Programs • Env Permitting and Compliance Cars.
Executive	Provision of general, administrative, and executive management oversight and direction; Services related to the following functions: integration and improvement, sustainability, emerging technologies, federal policy and government affairs.
Facilities	Operation and maintenance of office and service buildings; security and housekeeping for such buildings; procurement of office furniture and equipment.
Finance	Services associated with investments, financing, cash management, risk management, budgeting, financial forecasting, and economic analyses.
Grid Solutions	Grid modernization services: planning, outreach, technology and engineering planning and standards, project management and governance, project execution.
Human Resources	Establishment and administration of policies, and supervision of compliance with legal requirements, in the areas of employment, compensation, benefits and employee health and safety; payroll and employee benefits payment processing; supervision of contract negotiations and relations with labor unions.



Duke Energy Market Study

<i>Service</i>	<i>Official Description or Exception List</i>
<i>Information Systems</i>	Development and support of mainframe and distributed computer software applications; procurement and support of personal computers and related network and software applications; installation and operation of communication systems; and management and support of information systems.
<i>Internal Auditing</i>	Review of internal controls and procedures to ensure that assets are safeguarded and that transactions are properly authorized and recorded.
<i>Investor Relations</i>	Preparation of communications to investors and the financial community; performance of transfer agent and shareholder record keeping functions; administration of stock plans; regulatory reporting related to stock.
<i>Legal</i>	Services related to labor and employment law, litigation, contracts, rates and regulatory affairs, environmental matters, financing, financial reporting, real estate and other legal matters.
<i>Meters</i>	Procurement of meters.
<i>Nuclear Development</i>	Provision of design, engineering, project management and licensing for new operating units.
<i>Planning</i>	Facilitation of strategic and operating plans preparation; monitoring of trends; evaluation of business opportunities.
<i>Power Engineering and Construction</i>	Services related to the following functions: Enterprise Project Management Center of Excellence; Project Development and Initiation; Project Management and Construction fossil/hydro retrofits; major project Engineering and Construction Services; Commercial and International Project Management and Construction; performance improvement/management.
<i>Power Planning and Operations</i>	Production cost modeling and data management; Services related to the following functions: <ul style="list-style-type: none"> • Strategic Programs • Bus Svcs Workforce Strategy • Engineering Services • Doc Con/Config Mgmt • Technical Apps • NERC Compliance.
<i>Public Affairs</i>	Preparation and dissemination of information to



Duke Energy Market Study

<i>Service</i>	Official Description or Exception List
	employees, customers, government officials, communities, and the media; provision of associated communications materials.
<i>Rate Design and Analysis</i>	Services related to rate design and analysis, and rates support.
<i>Rights of Way</i>	Purchases, sales, management, surveying, and recording of real estate interests.
<i>Supply Chain</i>	Procurement of materials and contract services and related strategy and support.
<i>Transportation</i>	Procurement and maintenance of aircraft and procurement and maintenance of vehicles and other power-operated equipment.

DEBS Functions Market Assessment Process Documentation and Evidence:

Input from SME's includes (not definitive, but suggested):

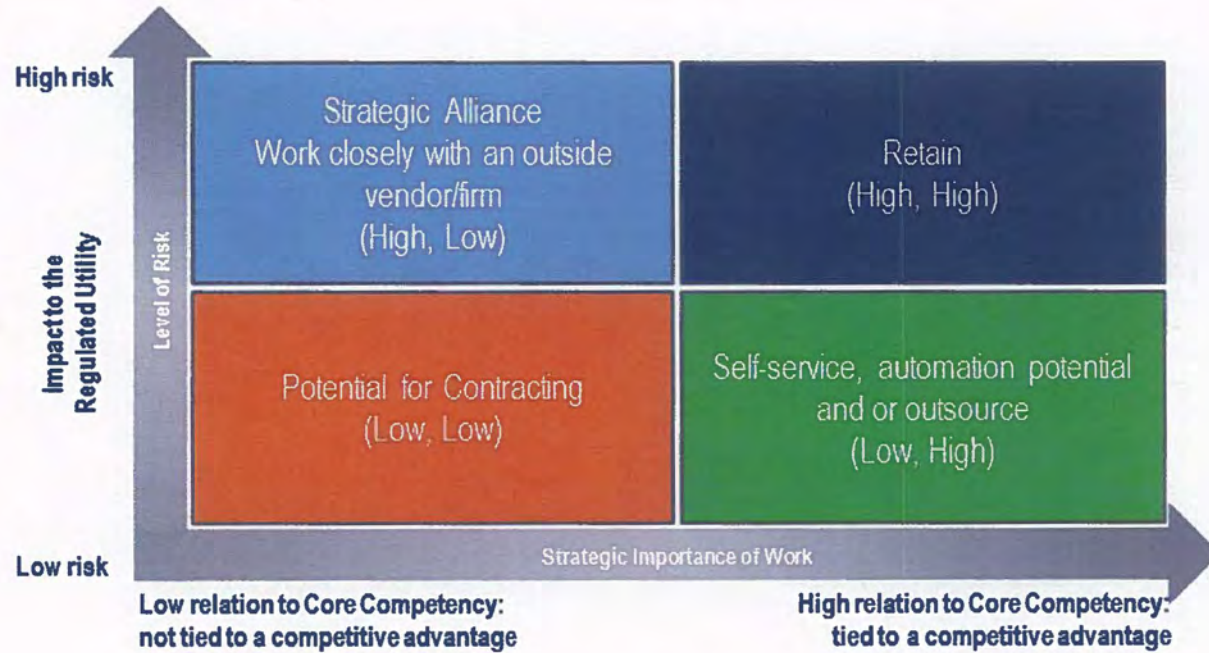
- Description of the function and the service provided to DEC/DEP.
- Written process documentation or a short narrative explaining how the service function performs a cost-benefit analysis.
- Evidence that the process has been applied in the last 4 years, if applicable.
- Current employee to contingent worker ratio for the function (i.e. total count and %).
- Indicate where the Function should be charted on the **Feasibility Matrix (shown below) and reason why.**
- Point of contact for the Function – individual(s) who will be able to attest to the process provided should an auditor review the market study report and send data requests.

The Feasibility Matrix for Service Company Functions:

1. Operational Impact to the Regulated Utility
 - Rated between 1 (Low Risk) and 10 (High Risk)
2. Relation to Core Competency (Tied to Core Competency)
 - Rated between 1 (Low Relation to Core Competency) and 10 (High Relation to Core Competency)



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Assessing the Service Functions Alignment to Core Competencies

Each examined Service Function falls into one or more of the categories below, based on the criteria provided by the business area as to the risk to the utility and its relation to Core Competencies

Potential for Contracting	Strategic Alliance	Self-service, automation potential and or outsource	Retain
<ul style="list-style-type: none">• Process is very standardized• Large number of other firms who can perform the same service more efficiently• Low risk and low importance with regards to Core Competencies	<ul style="list-style-type: none">• High risk around the process• Suggestion is to work closely in an alliance with a vendor• Strict oversight and vendor management will need to be in place to ensure risk mitigation	<ul style="list-style-type: none">• Strategically important to the company, but very low risk• Automation or outsourcing could free up resources	<ul style="list-style-type: none">• Components are critical to the enterprise• High analytical competencies needed• Limited number in talent pool• Important to customers• Embedded in organization• Unique competitive advantage• Strategic Service• Core Competencies

The Compensation Ongoing Review & Evaluation Process

Background

The **Compensation Ongoing Review & Evaluation, or CORE**, process is designed to ensure that Duke Energy continues to have competitive pay ranges for employees. This process will ensure proactive and routine monitoring of market values and trends for jobs and competitive alignment of jobs within the existing salary structure.

Over the course of a three-year cycle, all non-union, non-craft positions will be examined so that during this time, every job will have been reviewed at least once against current market conditions to ensure the salary range is set at the appropriate level, at which point the cycle would begin again.

Notably, the CORE process does not repeat Job Harmonization. The Job Harmonization Project was a review across the post-merger operating companies, Duke Energy Carolinas, LLC ("DEC") and Duke Energy Progress, LLC ("DEP"), and Duke Energy Business Services, LLC ("DEBS") to consolidate job titles, salary structures and incentive targets in common programs as part of an integrated, total rewards package for the companies. The project assessed the structures needed to support the larger organization, which resulted in incentive target structure changes and the establishment of new titling guidelines. Now that this integral piece of merger consolidation work has been completed, the CORE process will help ensure that the base pay compensation program remains competitive in markets where we compete for talent.

Methodology

Duke Energy employs a market-based compensation strategy. The compensation team identifies pay for specific types of work to benchmark salary ranges and ensure our jobs are competitive with companies that are similar to Duke Energy in size and revenue. The median salary survey pay of similar companies is benchmarked to establish a salary range for each job.

Jobs will be selected for each phase of CORE by prioritization, considering market conditions and business drivers. Feedback from line management and Talent Acquisition will be incorporated to help determine market conditions and job prioritization. Job descriptions will be collected to document the work performed and ensure compliance with the Fair Labor Standards Act (FLSA). As needed, cross-department or organization peer teams will be identified to assess work similarities or differences in various areas to ensure equity and consistency across the Company. Benchmark salary survey data will be reviewed, a salary range recommendation will be confirmed by management, and an employee impact analysis will be completed.

There will be no employee base pay changes as a result of CORE; however, salary grade changes may occur to align jobs with current market conditions.

Scope

The scope for transition to CORE for 2015 will primarily include:

- Evaluating all management positions

Other areas that may be considered are:

- New areas of pricing concern, due to changing market conditions and/or employee turnover
- Updating or establishing job descriptions without recent documentation

Process

1. Identify jobs in scope for 2015 (based on scope criteria)
2. Organizations complete job documentation
3. Compensation conducts market evaluation and makes salary range recommendations
4. Legal conducts FLSA reviews, where needed
5. Management confirms salary range recommendations
6. Implementation of CORE results

Approach for the 2015 - 2016 cycle

August (Compensation)

- Identify jobs in-scope for review and calibration needed cross-organizationally
- Obtain any additional emerging market concerns from stakeholders
- Review existing job documentation
- Confirm accuracy of existing market benchmarks

October - November

- Compensation: Collect/apply benchmark data (annual survey data available in October)
- Confirm market outliers in-scope for deeper review

December - April

- Management: Develop/update job documentation, as needed
- Compensation: Conduct market analysis
- Compensation: Conduct cross-functional calibration review to ensure alignment, as needed

May - June

- Reviews and approvals by leadership
- Communicate to impacted employees for a July 1 effective date

Reminder - CORE is NOT:

- *A mechanism to automatically increase or decrease employee pay*
- *An internal equity assessment of employee's base pay*



2016 Duke Energy Market Study

2016 Market Study Evidence Submission Form

Applicability: Duke Energy Business Services (DEBS), Duke Energy Carolinas (DEC), Duke Energy Progress (DEP)

Originator: Corporate Compliance, Ethics and Compliance, James Hollingsworth

Approval: DEC/DEP Rates and Regulatory

Due Date: 10/31/2016

Applicable Regulatory Condition:

Docket No. E-2, Sub 998

Docket No. E-7, Sub 986

5.2 Procurement or Provision of Goods and Services by DEC or DEP to or from Affiliates or Nonpublic Utility Operations.

Please populate and submit this form along with all evidence documentation to James Hollingsworth James.Hollingsworth@duke-energy.com by 10/31/2016.

- 1) Use the drop down list below to select the DEBS function for which you are attesting:

Accounting

If attesting only for a specific area within a function (i.e. CIS IT Support), please list below:

- NA

- 2) Provide a description of the function and the service offerings provided to DEC/DEP by the function:

Key processes include:

- a) Maintaining the books and records of Duke Energy Corporation and its affiliates
- b) Preparing financial and statistical reports
- c) Tax - prepare tax filings, tax strategy, tax compliance for income and other taxes, and income tax accounting.
- d) Supervising compliance with the laws and regulations

- 3) Provide a short narrative explaining how the service function performs a cost-benefit analysis:

There are limited areas within the Accounting service function that could be outsourced. Accounting support for utility operations is a specialized function.



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Tax functions and potentially areas within Accounting Research are some of the limited areas for which outsourcing could be evaluated. The Accounting Research group is a small group with fewer than 6 employees and therefore has not been evaluated. Furthermore outsourcing of this group would be utilizing staff with the caliber of Technical Accounting individuals from a Big 4 Accounting Firm. Billing rates for this class of individual would be cost prohibitive.

The Tax Department has evaluated in the past cost-benefit of outsourcing specific functions with the group.

The most recent study was a 2012 study on Insourcing Tax Compliance work that was being performed by E&Y. This study showed that insourcing the Tax Compliance work would result in over \$1.0 million savings by bringing the work in house.

The Accounting function has utilized contractor staff augmentation to fill vacancies as needed. The rates being charged for these employees are at rates comparable or higher than senior accountants. This is based on billings received for staff augmentation.

- 4) **Provide a listing of all evidence document names being submitted with this form as proof of performing a market study within the last 4 years (2012-2016) (i.e. Benchmark Analysis_2015.ppt):**
 - Attached is a confidential document: Tax Compliance Insourcing.pdf. This document includes the Tax Compliance Insourcing project charter for 2012, the 2011 Statement of Work by Ernst & Young (E&Y) showing the \$2.5 million fee, as well as a Tax Staffing Plan that includes insourcing the Tax Compliance work.

- 5) **Provide the current employee to contingent worker ratio for the function (i.e. total count, FTE's and CW's and %):**
 - Controller 217 FTE's, 13 Contractors 6%
 - Tax 67 FTE's, 1 Contractor 1.5%
 - Total 284 FTE's, 14 Contractors 5%

- 6) **Use the selectors below to indicate where the Service Function should be plotted on the Feasibility Matrix:**
 - a) ***Impact to the Regulated Utility (How crucial is it to utility operations and compliance?)***

1-Low to 10-High: 10

Proper Accounting Compliance is a fundamental element in the rate recovery process.

 - b) ***Relationship to Core Competency (How unique is the service; do***



2016 Duke Energy Market Study

many firms offer similar services on the open market; is it fairly specialized?)

A number of outside providers that could provide selected accounting functions. No one provider could support the depth and breadth of all the accounting service functions.

1-Low to 10-High: 9

Selected accounting functions could be provided by outside providers, however no one firm could support the depth and breadth of the Accounting Services Function.

- 7) **Provide the appropriate point of contact for the Service Function (Who will be able to interview with an auditor and attest to the market study process for the Service Function described in this document):**

Responder Name: Jeff Setser

Job Title: Director Allocations & Reporting

Organization/Department: Corporate Accounting / Controller

Telephone Number: 980-373-6503

Email Address: jeff.setser@duke-energy.com

Date Form was Completed: 10/28/2016

Return completed form and all evidence documentation to James Hollingsworth at James.Hollingsworth@duke-energy.com by 10/31/2016

Docket No. E-7, Sub 986D

2016 Duke Energy Market Study

Accounting Submission Form

Attachment Filed under Seal



2016 Duke Energy Market Study

2016 Market Study Evidence Submission Form

Applicability: Duke Energy Business Services (DEBS), Duke Energy Carolinas (DEC), Duke Energy Progress (DEP)

Originator: State Regulatory Compliance, Ethics and Compliance, (Formerly) Lindsey Adams and Marcos Roberson, (Currently) Brent Finnell, James Hollingsworth and Bernadette Raftery

Approval: DEC/DEP Rates and Regulatory

Due Date: 10/31/2016

Applicable Regulatory Condition:

Docket No. E-2, Sub 998

Docket No. E-7, Sub 986

5.2 Procurement or Provision of Goods and Services by DEC or DEP to or from Affiliates or Nonpublic Utility Operations.

*Please populate and submit this form along with all evidence documentation to **Brent Finnell (Brent.Finnell@duke-energy.com)**, **James Hollingsworth (James.Hollingsworth@duke-energy.com)** and **Bernadette Raftery (Bernadette.Raftery@duke-energy.com)** by 10/31/16:*

- 1) Use the drop down list below to select the DEBS function for which you are attesting:

Environmental Health and Safety

If attesting only for a specific area within a function (i.e. CIS IT Support), please list below:

- NA

- 2) Provide a description of the function and the service offerings provided to DEC/DEP by the function:

Establishment of programs, policies and procedures, and governance framework or environmental and health and safety programs and compliance; provision of compliance support. Functions include:

Governance Function

EHS governance includes corporate level activities to assure compliance with all applicable environmental, health and safety laws, regulations, and internal



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standards.

Oversight Function

EHS oversight includes critically monitoring, assessing, and evaluating the performance of operations to ensure compliance with environmental, health and safety programs and expectations.

Support Function

EHS support includes guiding, directing, and providing resources to aid in the execution of environmental, health and safety programs/ functions/ processes.

Perform Function

EHS executes and achieves outcomes for EHS implementation.

3) Provide a short narrative explaining how the service function performs a cost-benefit analysis:

- Have performed informal benchmarking through EHS groups such as NAEM and ORCHSE. Have also performed informal benchmarking directly with other utilities.

4) Provide a listing of all evidence document names being submitted with this form as proof of performing a market study within the last 4 years (2012-2016) (i.e. Benchmark Analysis_2015.ppt):

- Have performed informal benchmarking through EHS groups such as NAEM and ORCHSE. Have also performed informal benchmarking directly with other utilities.

5) Provide the current employee to contingent worker ratio for the function (i.e. total count, FTE's and CW's and %):

- 566 FTE/289 CW; 51%

6) Use the selectors below to indicate where the Service Function should be plotted on the Feasibility Matrix:

a) *Impact to the Regulated Utility (How crucial is it to utility operations and compliance?)*

1-Low to 10-High: 10

b) *Relationship to Core Competency (How unique is the service; do many firms offer similar services on the open market; is it fairly specialized?)*

1-Low to 10-High: 8



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7) Provide the appropriate point of contact for the Service Function (*Who will be able to interview with an auditor and attest to the market study process for the Service Function described in this document*):

Responder Name: Robert Bae
Job Title: Director, EHS Risk & Compliance Assurance
Organization/Department: Environment, Health & Safety
Telephone Number: 704-382-4436
Email Address: robert.bae@duke-energy.com
Date Form was Completed: 10/17/2016

James Hollingsworth (James.Hollingsworth@duke-energy.com) and Bernadette Raftery (Bernadette.Raftery@duke-energy.com) by 10/31/16.



2016 Duke Energy Market Study

2016 Market Study Evidence Submission Form

Applicability: Duke Energy Business Services (DEBS), Duke Energy Carolinas (DEC), Duke Energy Progress (DEP)

Originator: Corporate Compliance, Ethics and Compliance, James Hollingsworth

Approval: DEC/DEP Rates and Regulatory

Due Date: 10/31/2016

Applicable Regulatory Condition:

Docket No. E-2, Sub 998

Docket No. E-7, Sub 986

5.2 Procurement or Provision of Goods and Services by DEC or DEP to or from Affiliates or Nonpublic Utility Operations.

Please populate and submit this form along with all evidence documentation to James Hollingsworth James.Hollingsworth@duke-energy.com by 10/31/2016.

- 1) Use the drop down list below to select the DEBS function for which you are attesting:

Executive

If attesting only for a specific area within a function (i.e. CIS IT Support), please list below:

- NA

- 2) Provide a description of the function and the service offerings provided to DEC/DEP by the function:

The Executive function at Duke Energy sets the tone, direction, and strategy for Duke Energy Corporation, which includes the regulated utilities, commercial businesses and international businesses. This function is a "Retain" line of business in the Feasibility Matrix because it has a high impact to the regulated utilities (DEC and DEP for purposes of this market study) as well as high impact to strategic importance.

- 3) Provide a short narrative explaining how the service function performs a cost-benefit analysis:

Because of the Retain status and because the executives at Duke Energy are not comparable to a commercial market, the Executive Compensation function within HR manages the terms and conditions by which the executives are compensated and works with Accounting to determine how their services are



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allocated. Activities of the Executive function are overseen by the Board of Directors.

- 4) Provide a listing of all evidence document names being submitted with this form as proof of performing a market study within the last 4 years (2012-2016) (i.e. Benchmark Analysis_2015.ppt):

- NA

- 5) Provide the current employee to contingent worker ratio for the function (i.e. total count, FTE's and CW's and %):

- NA

- 6) Use the selectors below to indicate where the Service Function should be plotted on the Feasibility Matrix:

- a) *Impact to the Regulated Utility (How crucial is it to utility operations and compliance?)*

1-Low to 10-High: 10

- b) *Relationship to Core Competency (How unique is the service; do many firms offer similar services on the open market; is it fairly specialized?)*

1-Low to 10-High: 10

This function is a "Retain" line of business in the Feasibility Matrix as high impact to the regulated utility as well as high impact to strategic importance.

- 7) Provide the appropriate point of contact for the Service Function (*Who will be able to interview with an auditor and attest to the market study process for the Service Function described in this document*):

Responder Name: Chris Whicker

Job Title: Director Corporate Compliance

Organization/Department: Ethics & Compliance

Telephone Number: 704-382-2869

Email Address: Christian.Whicker@duke-energy.com



2016 Duke Energy Market Study

Date Form was Completed: 10/31/2016

Return completed form and all evidence documentation to James Hollingsworth at James.Hollingsworth@duke-energy.com by 10/31/2016



2016 Duke Energy Market Study

2016 Market Study Evidence Submission Form

Applicability: Duke Energy Business Services (DEBS), Duke Energy Carolinas (DEC), Duke Energy Progress (DEP)

Originator: Corporate Compliance, James Hollingsworth
(James.Hollingsworth@duke-energy.com)

Approval: DEC/DEP Rates and Regulatory

Due Date: 10/31/2016

Applicable Regulatory Condition:

Docket No. E-2, Sub 998

Docket No. E-7, Sub 986

5.2 Procurement or Provision of Goods and Services by DEC or DEP to or from Affiliates or Nonpublic Utility Operations.

Please populate and submit this form along with all evidence documentation to James Hollingsworth (James.Hollingsworth@duke-energy.com) by 10/31/16:

- 1) Use the drop down list below to select the DEBS function for which you are attesting:

Facilities

If attesting only for a specific area within a function (i.e. CIS IT Support), please list below:

- NA

- 2) Provide a description of the function and the service offerings provided to DEC/DEP by the function:

Duke Energy Real Estate manages most of Duke Energy's buildings and sites throughout its six state service territory serving electric and gas customers. This management includes all daily operational care and maintenance of buildings and grounds within our office and equipment buildings and includes building maintenance for unoccupied operational buildings such as electric substation and telecommunication buildings. All facilities management work in the Carolinas (DEC and DEP) are outsourced to a significant real estate management outsource provider. Duke Energy benefits not only from the expertise of this provider, but also in acquiring labor skills, technologies, and cost advantages in the operations and maintenance of its facilities.



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3) Provide a short narrative explaining how the service function performs a cost-benefit analysis:

While there are numerous industry organizations related to facilities management, IFMA (International Facilities Management Association) offers benchmarking services yearly. Further, this organization provides benchmarking opportunities related to the utility sector specifically. Provided in this submission is the result of the latest 2016 IFMA utilities benchmarking study.

4) Provide a listing of all evidence document names being submitted with this form as proof of performing a market study within the last 4 years (2012-2016) (i.e. Benchmark Analysis_2015.ppt):

- IFMA_Benchmar9-27-16_NamesRemoved.pdf

This benchmarking study looks at Real Estate operating costs of utility companies, and looks at these costs across different types of managed space (headquarters, data centers, field locations, etc). Facilities uses this to compare how its performance to peer businesses in the same industry. The Company has a confidentiality agreement with IFMA; therefore, this study is being filed under seal.

5) Provide the current employee to contingent worker ratio for the function (i.e. total count, FTE's and CW's and %):

- Total count 77 – 3 Employee / 74 Contingent Worker – 4% employee base

6) Use the selectors below to indicate where the Service Function should be plotted on the Feasibility Matrix:

a) *Impact to the Regulated Utility (How crucial is it to utility operations and compliance?)*

1-Low to 10-High: 7

b) *Relationship to Core Competency (How unique is the service; do many firms offer similar services on the open market; is it fairly specialized?)*

1-Low to 10-High: 5

7) Provide the appropriate point of contact for the Service Function (Who will be able to interview with an auditor and attest to the market study process for the Service Function described in this document):



2016 Duke Energy Market Study

Responder Name: Bobby Veit
Job Title: Director, Real Estate Asset Mgmt
Organization/Department: Administrative Services
Telephone Number: 919-546-3974
Email Address: Bobby.Veit@duke-energy.com
Date Form was Completed: 10/28/2016

***Return completed form and all evidence documentation to James Hollingsworth
(James.Hollingsworth@duke-energy.com) by 10/31/16:***

Docket No. E-7, Sub 986D

2016 Duke Energy Market Study

Facilities Submission Form

Attachment Filed under Seal



2016 Duke Energy Market Study

2016 Market Study Evidence Submission Form

Applicability: Duke Energy Business Services (DEBS), Duke Energy Carolinas (DEC), Duke Energy Progress (DEP)

Originator: State Regulatory Compliance, Ethics and Compliance, Lindsey Adams and Marcos Roberson

Approval: DEC/DEP Rates and Regulatory

Due Date: 10/31/2016

Applicable Regulatory Condition:

Docket No. E-2, Sub 998

Docket No. E-7, Sub 986

5.2 Procurement or Provision of Goods and Services by DEC or DEP to or from Affiliates or Nonpublic Utility Operations.

Please populate and submit this form along with all evidence documentation to Lindsey Adams (lindsey.adams@duke-energy.com) and Marcos Roberson (marcos.roberson@duke-energy.com) by 10/31/16:

- 1) Use the drop down list below to select the DEBS function for which you are attesting:

Finance

If attesting only for a specific area within a function (i.e. CIS IT Support), please list below:

- Insurance

- 2) Provide a description of the function and the service offerings provided to DEC/DEP by the function:

The Insurance group provides coverage for Property, General & Auto Liability and Workers' Compensation through its captive insurance companies. The Insurance group coordinates the placement of insurance and the management of claims.

- 3) Provide a short narrative explaining how the service function performs a cost-benefit analysis:

The Insurance function is responsible to the Financial and Risk Management Committee (FRMC) of the Duke Energy Board of Directors. The Chief Risk



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Officer provides periodic updates to the FRMC on insurance coverages and potential risks of Duke Energy. It utilizes a Third Party Administrator (TPA) to manage workers' compensation, general & auto liability claims. All property claims are managed in-house by the Claims Manager. Insurance annually reviews the service agreement with the TPA for pricing and services. Internal labor is charged using the corporate allocation factor DGFI. The Director of Insurance and Captive Manager have met with the Public Staff of the North Carolina Utilities Commission to review the annual premium billing models to the regulated entities.

4) Provide a listing of all evidence document names being submitted with this form as proof of performing a market study within the last 4 years (2012-2016) (i.e. Benchmark Analysis_2015.ppt):

- N/A

5) Provide the current employee to contingent worker ratio for the function (i.e. total count, FTE's and CW's and %):

- 100% FTE's

6) Use the selectors below to indicate where the Service Function should be plotted on the Feasibility Matrix:

a) *Impact to the Regulated Utility (How crucial is it to utility operations and compliance?)*

1-Low to 10-High: 10

b) *Relationship to Core Competency (How unique is the service; do many firms offer similar services on the open market; is it fairly specialized?)*

All aviation function is highly specialized and expensive for outside contractors.

1-Low to 10-High: 10

7) Provide the appropriate point of contact for the Service Function (*Who will be able to interview with an auditor and attest to the market study process for the Service Function described in this document*):

Responder Name: R. Lance Burnette

Job Title: Insurance Manager



2016 Duke Energy Market Study

Organization/Department: Global Risk Management and Insurance
Telephone Number: 704-382-8623
Email Address: Lance.Burnette@Duke-Energy.com
Date Form was Completed: 12/19/2016

*Return completed form and all evidence documentation to Lindsey Adams
(lindsey.adams@duke-energy.com) and Marcos Roberson
(marcos.roberson@duke-energy.com) by 10/31/16.*



2016 Duke Energy Market Study

2016 Market Study Evidence Submission Form

Applicability: Duke Energy Business Services (DEBS), Duke Energy Carolinas (DEC), Duke Energy Progress (DEP)

Originator: Corporate Compliance, James Hollingsworth
(James.Hollingsworth@duke-energy.com)

Approval: DEC/DEP Rates and Regulatory

Due Date: 10/31/2016

Applicable Regulatory Condition:

Docket No. E-2, Sub 998

Docket No. E-7, Sub 986

5.2 Procurement or Provision of Goods and Services by DEC or DEP to or from Affiliates or Nonpublic Utility Operations.

Please populate and submit this form along with all evidence documentation to James Hollingsworth (James.Hollingsworth@duke-energy.com) by 10/31/16

- 1) Use the drop down list below to select the DEBS function for which you are attesting:

Finance

If attesting only for a specific area within a function (i.e. CIS IT Support), please list below:

Financial Planning & Analysis (FP&A)

- 2) Provide a description of the function and the service offerings provided to DEC/DEP by the function:

FP&A develops, shapes, and communicates a dynamic and integrated business and financial plan in concert with the business in a timely fashion consistent with the Duke Energy Corporation's strategy and expectations of our shareholders and customers.

Key service offerings / business processes supported include, but are not limited to the following:

1. Budgeting process
2. Forecasting process
3. Reporting and analysis
4. Operational / business support



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3) Provide a short narrative explaining how the service function performs a cost-benefit analysis:

- The FP&A group conducts benchmarking on an ad hoc basis periodically. The most recent benchmarking efforts were performed in conjunction with the corporate strategic objective of cost containment. The benchmarking efforts conducted focus on operational efficiency / performance metrics as well as financial cost comparisons. The benchmarking compares Duke Energy to other large, multi-national, capital intensive companies, as well as against other utilities.

4) Provide a listing of all evidence document names being submitted with this form as proof of performing a market study within the last 4 years (2012-2016) (i.e. Benchmark Analysis_2015.ppt):

During the last two years several targeted benchmarking studies were completed, both of which are confidential:

- PWC Benchmark Analysis – 2015
- Corporate Executive Board Finance Performance Benchmark Study – 2016

5) Provide the current employee to contingent worker ratio for the function (i.e. total count, FTE's and CW's and %):

- Total staff 264 (as of 10/31/2016)
- Total full time employees (FTE's) of 223 (as of 10/31/2016)
- Total contingent workers (CW's) of 41 (as of 10/31/2016)
- Ratio of FTE's to total staff count is 85% or 223 / 263 (as of 10/31/2016)

6) Use the selectors below to indicate where the Service Function should be plotted on the Feasibility Matrix:

a) *Impact to the Regulated Utility (How crucial is it to utility operations and compliance?)*

1-Low to 10-High: 10

b) *Relationship to Core Competency (How unique is the service; do many firms offer similar services on the open market; is it fairly specialized?)*

1-Low to 10-High: 10

FP&A received an overall High, High rating on the feasibility assessment due to the strong analytical skills and specific utility and jurisdictional understanding required to be a valuable business partner to the functions.



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7) Provide the appropriate point of contact for the Service Function (*Who will be able to interview with an auditor and attest to the market study process for the Service Function described in this document*):

Responder Name:	Dwight Jacobs
Job Title:	Sr. Vice President, Financial Planning & Analysis
Organization/Department:	Finance
Telephone Number:	704-382-4148
Email Address:	Dwight.Jacobs@duke-energy.com
Date Form was Completed:	10/31/2016

Return completed form along with all evidence documentation to James Hollingsworth (James.Hollingsworth@duke-energy.com) by 10/31/16

Docket No. E-7, Sub 986D

2016 Duke Energy Market Study

**Finance – Financial Planning & Analysis
Submission Form**

Attachments Filed under Seal



2016 Duke Energy Market Study

2016 Market Study Evidence Submission Form

Applicability: Duke Energy Business Services (DEBS), Duke Energy Carolinas (DEC), Duke Energy Progress (DEP)

Originator: State Regulatory Compliance, Ethics and Compliance, Lindsey Adams and Marcos Roberson

Approval: DEC/DEP Rates and Regulatory

Due Date: 10/31/2016

Applicable Regulatory Condition:

Docket No. E-2, Sub 998

Docket No. E-7, Sub 986

5.2 Procurement or Provision of Goods and Services by DEC or DEP to or from Affiliates or Nonpublic Utility Operations.

Please populate and submit this form along with all evidence documentation to Lindsey Adams (lindsey.adams@duke-energy.com) and Marcos Roberson (marcos.roberson@duke-energy.com) by 10/31/16:

- 1) Use the drop down list below to select the DEBS function for which you are attesting:

Finance

If attesting only for a specific area within a function (i.e. CIS IT Support), please list below:

- Treasury

- 2) Provide a description of the function and the service offerings provided to DEC/DEP by the function:

- Treasury function and services include: Manage short-term debt (commercial paper) and provide daily funding of the corporation's bank accounts, issue corporate and utility long-term debt at attractive rates including complex structured debt transactions, and manage the relationships with the rating agencies and banking partners

- 3) Provide a short narrative explaining how the service function performs a cost-benefit analysis:



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- The industry standard is to maintain the Treasury Department in house. The detailed corporation and regulated utility knowledge is beneficial for understanding the utility business and the cash needs, as well as the long-term funding, including complex Treasury transactions. Such transaction include expertise in the Utility Money Pool Agreement and other securitization transactions. Through the Financial and Risk Management Committee, the Duke Energy Board of Directors maintains oversight of the Treasury function. The Duke Energy board sets the financing authority each year for the corporation. Additionally, Duke Energy Corporation, DEC and DEP file periodically with the North Carolina Utilities Commission for the authority to issue first mortgage bonds and senior unsecured notes up to a set dollar amount.
- 4) Provide a listing of all evidence document names being submitted with this form as proof of performing a market study within the last 4 years (2012-2016) (i.e. Benchmark Analysis_2015.ppt):
- N/A
- 5) Provide the current employee to contingent worker ratio for the function (i.e. total count, FTE's and CW's and %):
- Treasury is 100% FTEs with no contingent workers
- 6) Use the selectors below to indicate where the Service Function should be plotted on the Feasibility Matrix:
- a) *Impact to the Regulated Utility (How crucial is it to utility operations and compliance?)*
- 1-Low to 10-High: 10
- b) *Relationship to Core Competency (How unique is the service; do many firms offer similar services on the open market; is it fairly specialized?)*
- 1-Low to 10-High: 10
- 7) Provide the appropriate point of contact for the Service Function (*Who will be able to interview with an auditor and attest to the market study process for the Service Function described in this document*):

Responder Name:

Kris C. Duffy



2016 Duke Energy Market Study

Job Title: Assistant Treasurer
Organization/Department: Treasury
Telephone Number: 704-382-7107
Email Address: Kris.Duffy@duke-energy.com
Date Form was Completed: 10/24/2016

*Return completed form and all evidence documentation to Lindsey Adams
(lindsey.adams@duke-energy.com) and Marcos Roberson
(marcos.roberson@duke-energy.com) by 10/31/16.*



2016 Duke Energy Market Study

2016 Market Study Evidence Submission Form

Applicability: Duke Energy Business Services (DEBS), Duke Energy Carolinas (DEC), Duke Energy Progress (DEP)
Originator: Corporate Compliance, Ethics and Compliance, James Hollingsworth
Approval: DEC/DEP Rates and Regulatory

Due Date: 10/31/2016

Applicable Regulatory Condition:

Docket No. E-2, Sub 998
Docket No. E-7, Sub 986

5.2 Procurement or Provision of Goods and Services by DEC or DEP to or from Affiliates or Nonpublic Utility Operations.

Please populate and submit this form along with all evidence documentation to James Hollingsworth James.Hollingsworth@duke-energy.com by 10/31/2016.

- 1) Use the drop down list below to select the DEBS function for which you are attesting:

Grid Solutions

If attesting only for a specific area within a function (i.e. CIS IT Support), please list below:

- NA

- 2) Provide a description of the function and the service offerings provided to DEC/DEP by the function:

Grid Solutions provides distribution and transmission grid modernization services. This includes planning, outreach, technology and engineering planning and standards, project management and governance, and project execution for grid investments in support of the DEC's and DEP's strategic objectives.

- 3) Provide a short narrative explaining how the service function performs a cost-benefit analysis:

DEC and DEP have a significant amount of project work that occurs outside of regular utility maintenance. Much of this work is accomplished by the Grid Solutions department. This project work is usually short in duration and often



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requires a person with a specific skill set to help accomplish the project on time and on budget.

When management considers whether to hire contract labor versus an employee, the two main questions that need to be answered are: "What is the duration of this work/project expected to be?" and "Do we already have someone with the skill set needed on staff?" If the project is short in duration (less than 3 years), then the decision will be made to hire contract labor. This prevents Grid Solutions from hiring too many employees, which results in those resources remaining on staff after their project has been completed and becoming obsolete or under-utilized. Grid Solutions' Resource Management Department also tracks average rates for the roles that are typically filled by contract labor. This allows the organization to remain competitive in the market and prevents DEC and DEP from overpaying for resources.

If the resource requirement is for a long-term program that aligns with the 5-15 year strategic plan, then the decision might be made to hire an employee. This allows the company to grow and retain talented resources that will be beneficial for the long term while mitigating the higher cost of short-term contract labor. If the roles and responsibilities of the resource include managing other resources, then those positions are typically filled with employees. For subject matter expertise, a blend of resources is used to maintain continuity between projects and retain specific skillsets in the employee base.

4) Provide a listing of all evidence document names being submitted with this form as proof of performing a market study within the last 4 years (2012-2016) (i.e. Benchmark Analysis_2015.ppt):

- Sourcing has formal acquisition methodologies which includes a "common" evaluation process with specific weights and scoring criteria, below is a description of how Sourcing acquires and qualifies bids for services.
 1. Establish a qualified bid pool
 - a. Often an Request for Information ("RFI") is submitted to all known vendors for a particular service or material. The list of vendors is considered "confidential," but includes Scope Services, Grid One, Utility Partners of America, and Smart Grid Solutions for DEC. The RFI may include questions around safety records, company finances/stability, technical ability, etc. Based on the RFI response, a shortlist of bidders is determined.
 2. Distribute the Request For Proposals
 - a. A Scope of Work, Bidder's instructions, and any other relevant documents (specifications, etc.) are distributed to the bidders through the PowerAdvocate tool. All communications and questions go through this



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tool. Any communication outside of the tool may result in disqualification of a bidder. Bidder's instructions will list all the information Grid Solutions requires to be submitted. This includes (but is not limited to) information on Corporate Responsibility (Diversity, Environmental Stewardship, Local Impact).

3. Receive the bids

a. A criteria-based decision matrix is used to evaluate the bids. There will be specific criteria and metrics looked at for high level buckets such as Commercial, Technical, and Corporate Responsibility. Each bid has different criteria and weights based on importance to the project or category. All criteria, weights, and metrics are determined by the bid team prior to getting any bids back. The bid team includes sourcing, the project director, and AMI project managers.

4. Select the most beneficial opportunity

a. The criteria-based decision matrix is used to facilitate an informed discussion to ensure all exploration of all critical areas before forming a recommendation. Once the bid team determines its recommendation, a strategy paper is created and formulated by the bid team and the Business Unit and Supply Chain must approve based on Delegation of Authority. This is part of a Stage Gate process.

5) **Provide the current employee to contingent worker ratio for the function (i.e. total count, FTE's and CW's and %):**

- As of October 14, 2016, Grid Solutions had a total of 281 resources consisting of 159 FTEs and 122 CWs. The FTE to contingent worker ratio equals 57% FTE to 43% CW.

6) **Use the selectors below to indicate where the Service Function should be plotted on the Feasibility Matrix:**

a) ***Impact to the Regulated Utility (How crucial is it to utility operations and compliance?)***

1-Low to 10-High: 8

The grid and metering projects and services provided by Grid Solutions are performed in very close coordination with Distribution and Transmission Operations, Metering Services, and Customer Operations. This direct operational coordination represents a higher risk impact based on the critical nature of the work in electric service to customers.

b) ***Relationship to Core Competency (How unique is the service; do many firms offer similar services on the open market; is it fairly specialized?)***

1-Low to 10-High: 7



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Grid Solutions work is tied directly to the current long-term strategy objectives of DEC and DEP. At this time, various vendors are used for specific projects and expertise on certain types of equipment, however, the planning and execution of the portfolio of Grid Solutions projects is highly related to the core competency.

- 7) Provide the appropriate point of contact for the Service Function (*Who will be able to interview with an auditor and attest to the market study process for the Service Function described in this document*):

Responder Name: Brandon Hill
Job Title: Resource Management Analyst
Organization/Department: Grid Solutions – PMO & Project Controls
Telephone Number: 919-546-6207
Email Address: Brandon.Hill4@duke-energy.com
Date Form was Completed: 10/21/2016

Return completed form and all evidence documentation to James Hollingsworth at James.Hollingsworth@duke-energy.com by 10/31/2016



2016 Duke Energy Market Study

2016 Market Study Evidence Submission Form

Applicability: Duke Energy Business Services (DEBS), Duke Energy Carolinas (DEC), Duke Energy Progress (DEP)

Originator: Corporate Compliance, James Hollingsworth
(James.Hollingsworth@duke-energy.com)

Approval: DEC/DEP Rates and Regulatory

Due Date: 10/31/2016

Applicable Regulatory Condition:

Docket No. E-2, Sub 998

Docket No. E-7, Sub 986

5.2 Procurement or Provision of Goods and Services by DEC or DEP to or from Affiliates or Nonpublic Utility Operations.

*Please populate and submit this form along with all evidence documentation to **James Hollingsworth** (James.Hollingsworth@duke-energy.com) by 10/31/16*

- 1) Use the drop down list below to select the DEBS function for which you are attesting:

Human Resources

If attesting only for a specific area within a function (i.e. CIS IT Support), please list below:

- NA

- 2) Provide a description of the function and the service offerings provided to DEC/DEP by the function:

Human Resources (HR) Service includes the following key processes:

- Establish and administer policies for compliance with legal and regulatory requirements in numerous jurisdictions in the areas of employment, compensation, and benefits
- Supervise compliance with those policies and legal and regulatory requirements
- Process payroll
- Supervise contract negotiations and relations with labor unions
- Administer workforce data
- Establish and administer talent management in areas of recruiting and



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g) onboarding, development, succession planning, performance, and diversity and inclusion.

3) Provide a short narrative explaining how the service function performs a cost-benefit analysis:

Duke Energy utilizes several benchmarking opportunities as a means to assess the cost, size, and effectiveness of the Human Resources organization as compared to organizations similar in HR structure, organization size and complexity. These benchmarks are conducted periodically. HR aligns with assigned Operating & Maintenance (O&M) targets. Contracts are competitively bid. Job pay assignments are based on competitive market pricing.

4) Provide a listing of all evidence document names being submitted with this form as proof of performing a market study within the last 4 years (2012-2016) (i.e. Benchmark Analysis_2015.ppt):

- PWC - Duke Energy Human Resources Effectiveness Benchmark (2014) - Confidential
- Bain - Sustained Cost Transformation Diagnostics (2016) - Confidential

5) Provide the current employee to contingent worker ratio for the function (i.e. total count, FTE's and CW's and %):

Human Resources	US Employees (Full-time, Part-Time)	Contingent Workers (Staff Aug)	% EE to CW Ratio
Employee & Labor Relations	19	2	9.5%
HR Business Partners	54	5	10.8%
HR Png, Integ & Change Mgmt	5	4	1.3%
Human Resources Operations	58	13	4.5%
Talent Management	64	10	6.4%
Staff	6	0	0.0%
Total	206	34	6.1%

6) Use the selectors below to indicate where the Service Function should be plotted on the Feasibility Matrix:

a) *Impact to the Regulated Utility (How crucial is it to utility operations and compliance?)*

1-Low to 10-High: 8

The overall impact of the HR function to the Regulated Utility is considered



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to be fairly high. The HR processes associated with union contract negotiations, grievances, etc. as well as compensation, benefit, payroll, and succession planning management and administration are important factors in cost and productivity to the Regulated Utility while corporate training, consulting, change management have slightly less impact/risk.

- b) Relationship to Core Competency (How unique is the service; do many firms offer similar services on the open market; is it fairly specialized?)**

1-Low to 10-High: 7

The overall relationship of the HR function to the Enterprise Core Competency of producing power is considered to be moderately high. The HR processes associated with Labor Relations are fairly specialized and the compensation and succession planning management and administration are strategic providing competitive advantages.

- 7) Provide the appropriate point of contact for the Service Function (Who will be able to interview with an auditor and attest to the market study process for the Service Function described in this document):**

Responder Name: Marie Broome

Job Title: Director, HR System Planning, Data Utilization and Reporting

Organization/Department: Administrative Services & Human Resources/HR Operations

Telephone Number:704-382-3472

Email Address: Marie.Broome@duke-energy.com

Date Form was Completed: October 26, 2016

Return completed form along with all evidence documentation to James Hollingsworth (James.Hollingsworth@duke-energy.com) by 10/31/16

Docket No. E-7, Sub 986D

2016 Duke Energy Market Study

Human Resources Submission Form

Attachments Filed under Seal



2016 Duke Energy Market Study

2016 Market Study Evidence Submission Form

Applicability: Duke Energy Business Services (DEBS), Duke Energy Carolinas (DEC), Duke Energy Progress (DEP)

Originator: Corporate Compliance, James Hollingsworth
(James.Hollingsworth@duke-energy.com)

Approval: DEC/DEP Rates and Regulatory

Due Date: 10/31/2016

Applicable Regulatory Condition:

Docket No. E-2, Sub 998

Docket No. E-7, Sub 986

5.2 Procurement or Provision of Goods and Services by DEC or DEP to or from Affiliates or Nonpublic Utility Operations.

Please populate and submit this form along with all evidence documentation to James Hollingsworth (James.Hollingsworth@duke-energy.com) by 10/31/16:

- 1) Use the drop down list below to select the DEBS function for which you are attesting:

Information Systems

If attesting only for a specific area within a function (i.e. CIS IT Support), please list below:

Attesting for Information Technology (IT), Cybersecurity, and Customer Information Systems (CIS)

- 2) Provide a description of the function and the service offerings provided to DEC/DEP by the function:

Information Technology, Cybersecurity, and Customer Information Systems are the Information Systems departments that provide for the general technology needs of the enterprise (including DEC and DEP) and specific technology needs of various functions and businesses. The Information Technology function provides services related to application delivery and support, infrastructure & operations, business/functional IT support (e.g. nuclear generation IT support), telecommunications, information analytics and mobility, IT project management, and IT relationship management with the business. The Cybersecurity function



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provides identification of assets for protection, detection of threats and events, responds to events and recovery after events. The Customer Information Systems function provides support for the customer billings systems.

3) Provide a short narrative explaining how the service function performs a cost-benefit analysis:

Information Systems is focused on efficiencies and managing costs. The following are examples of efforts to ensure it is operating effectively and achieving cost savings where possible:

- A) There are governance policies for selecting investments in information technology and Cybersecurity to ensure it is performing the right work for Duke Energy. It strives to ensure technology investments are targeted to deliver the best value to the enterprise (which includes DEC and DEP) and to facilitate business ownership of IT investment decisions based on enterprise priorities.
- B) There have been Process Efficiency Initiatives that included surveying all employees for efficiency ideas within IT and Cybersecurity. Areas of focus include:
 - Contract negotiations and maintenance renewals
 - Reduction of contractors or conversion of contractors to employees where appropriate
- C) The Enterprise's Purchasing Controls Policy
 - Duke Energy acquires Information Systems services and products in a competitive and fair manner.

Duke Energy has a Purchasing Controls Policy that defines the roles, responsibilities, and requirements related to the procurement process at Duke Energy Corporation and its subsidiaries. Specific topics addressed include required approvals, the sourcing process, contract formation, segregation of duties, and standards of business conduct.

All purchases of Information Systems goods and services for amounts greater than \$100,000 must be sourced through the Supply Chain organization. The Supply Chain personnel manage the Procurement process by actively selecting qualified bidders; developing the sourcing strategy; managing the bidding process; benchmarking; negotiating terms and conditions, pricing, and any other commercial provisions.

With limited exceptions, competitive bids are required for all purchases greater than \$100,000. All exceptions must be documented and approved. On occasions, purchases are single sourced or sole sourced.



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A single source purchase occurs when a competitive bidding process is not undertaken and the decision is made to select a specific supplier based on technical, commercial, or other valid business reasons. Single Source purchases must be supported by documentation explaining the rationale and requires joint approval by a Vice President or their designee and Supply Chain. Sole source purchases must be approved by Supply Chain in accordance with their Delegation of Authority limits.

- Duke Energy has a Strategic Relationship Management program with IT-Telecom strategic suppliers. IT and Supply Chain have partnered to manage strategic and emerging IT supplier relationships with a goal of more efficient supplier engagement and more effective spend. The plan is to coordinate supplier strategy and engagement plans across IT functions and other business units with a goal of efficient sourcing of good and services.

D) Organization changes within IT, Cybersecurity, and Customer Information Systems

- Information Systems has restructured to create a leaner organization with greater spans of control, better resource flow, operational efficiencies, more flexible/simplified processes, and improved alignment of towers.
- Most recent reorganizations occurred as of October 1, 2016.

4) Provide a listing of all evidence document names being submitted with this form as proof of performing a market study within the last 4 years (2012-2016) (i.e. Benchmark Analysis_2015.ppt):

See attached Confidential document, CEB Baseline Benchmarking.pdf.

5) Provide the current employee to contingent worker ratio for the function (i.e. total count, FTE's and CW's and %):

- Data as of Oct 28, 2016

	Total count	FTE	CW (Contract Services & Staff Augment CW)	% FTE
CIS	54	50	4	93%
Cybersecurity	235	105	130	45%
IT	3302	1580	1722	48%

6) Use the selectors below to indicate where the Service Function should be plotted on the Feasibility Matrix:

- a) Impact to the Regulated Utility (How crucial is it to utility operations*



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and compliance?)

1-Low to 10-High: 10

b) Relationship to Core Competency (How unique is the service; do many firms offer similar services on the open market; is it fairly specialized?)

1-Low to 10-High: 5

7) Provide the appropriate point of contact for the Service Function (Who will be able to interview with an auditor and attest to the market study process for the Service Function described in this document):

Responder Name: Dana Rideout, Hafid Elabdellaoui, Bob Bonner and Michelle Cary

Job Title: Director IT Applications, Mngng Director IT Security & Compliance, Lead Financial Analyst and Lead Financial Analyst

Organization/Department: Corporate IT – Business Planning & Relationship Management, Enterprise Security & Emergency Response IT Finance and Business Transformation & Technology Finance

Telephone Number: 919-546-5036, 704-382-0350, 704-382-8716 and 704-382-9145

Email Address: Dana.Rideout@duke-energy.com, Hafid.Elabdellaoui@duke-energy.com, Bob.Bonner@duke-energy.com, and Michelle.Cary@duke-energy.com

Date Form was Completed: 10/28/2016

Return completed form and all evidence documentation to James Hollingsworth (James.Hollingsworth@duke-energy.com) by 10/31/16.

Docket No. E-7, Sub 986D

2016 Duke Energy Market Study

Information Technology Submission Form

Attachment Filed under Seal



2016 Duke Energy Market Study

2016 Market Study Evidence Submission Form

Applicability: Duke Energy Business Services (DEBS), Duke Energy Carolinas (DEC), Duke Energy Progress (DEP)

Originator: State Regulatory Compliance, Ethics and Compliance

Approval: DEC/DEP Rates and Regulatory

Due Date: 10/31/2016

Applicable Regulatory Condition:

Docket No. E-2, Sub 998

Docket No. E-7, Sub 986

5.2 Procurement or Provision of Goods and Services by DEC or DEP to or from Affiliates or Nonpublic Utility Operations.

Please populate and submit this form along with all evidence documentation to Bernadette Raftery (Bernadette.Raftery@duke-energy.com) 704-382-0497 by 10/31/16:

- 1) Use the drop down list below to select the DEBS function for which you are attesting:

Internal Auditing

If attesting only for a specific area within a function (i.e. CIS IT Support), please list below:

- NA

- 2) Provide a description of the function and the service offerings provided to DEC/DEP by the function:

The objective of the Corporate Audit Services Department is to determine whether the organization's network of risk management, control, and governance processes, as designed and represented by management, is adequate and functioning properly. To accomplish this objective, the Corporate Audit Services Department will:

- Examine and evaluate the adequacy of the design, documentation, and effectiveness of the internal control system, as defined below, throughout Duke Energy, including its subsidiary business units and affiliates, and the quality of performance in carrying out assigned control responsibilities



2016 Duke Energy Market Study

- Assist management in the assessment of business risks and in the identification of cost beneficial modifications of internal controls to mitigate risks, including potential fraud, to acceptable levels
- Assist management in providing reasonable assurance that Duke Energy's objectives and goals will be met efficiently and economically
- Interact with various Duke Energy governance groups as required
- Evaluate the means of safeguarding assets and, as appropriate, verify their existence
- Review compliance with established laws, regulations, and policies and procedures, as appropriate
- Conduct selected special audits and consulting projects at the request of management, as appropriate, or the Audit Committee
- Communicate opportunities for improving management control, profitability, and the organization's image to the appropriate level of management and to the Audit Committee
- Follow-up on outstanding audit matters to validate that these issues are being resolved appropriately and timely

3) Provide a short narrative explaining how the service function performs a cost-benefit analysis:

The loaded cost of providing internal audit services internally is approximately \$96/hour, while the weighted cost (between IT and Financial auditors) based on most recent invoices is approximately \$127 an hour. See attached spreadsheet showing calculation.

4) Provide a listing of all evidence document names being submitted with this form as proof of performing a market study within the last 4 years (2012-2016) (i.e. Benchmark Analysis_2015.ppt):

- 2017 Cost/Benefit Analysis, representative bills/statements of work from Dixon Hughes and KPMG-partially confidential

5) Provide the current employee to contingent worker ratio for the function (i.e. total count, FTE's and CW's and %):

- Zero contingent workers currently on staff currently. Will use contingent workers on a case by case basis as needed for staff augmentation of specific skill needs.



2016 Duke Energy Market Study

6) Use the selectors below to indicate where the Service Function should be plotted on the Feasibility Matrix:

a) *Impact to the Regulated Utility (How crucial is it to utility operations and compliance?)*

1-Low to 10-High: **7**

b) *Relationship to Core Competency (How unique is the service; do many firms offer similar services on the open market; is it fairly specialized?)*

1-Low to 10-High: **5**

7) Provide the appropriate point of contact for the Service Function (*Who will be able to interview with an auditor and attest to the market study process for the Service Function described in this document*):

Responder Name: Jeff Stone
Job Title: VP-Corporate Audit Services
Organization/Department: Corporate Audit Services
Telephone Number: 704-382-4725
Email Address: Jeff.Stone@duke-energy.com
Date Form was Completed: 10/28/2016

Return completed form and all evidence documentation to Bernadette Raftery (Bernadette.raftery@duke-energy.com) by 10/31/16.

Docket No. E-7, Sub 986D

2016 Duke Energy Market Study

Internal Auditing Submission Form

Partial Attachment Filed under Seal

STATEMENT OF WORK 2016-001-RAS

Internal Audit Staff Augmentation Assistance

This Statement of Work No. 2016-001-RAS is issued pursuant to the Master Services Agreement, effective June 20, 2006, between Dixon Hughes Goodman, LLP. ("Consultant" or "DHG") and **DUKE ENERGY BUSINESS SERVICES LLC**. ("Duke Energy" or "the Company"). The specific terms which will apply to this request are described below:

I. SERVICES DESCRIPTION AND OBJECTIVES:

Consultant will provide internal audit staff augmentation services ("Assigned Staff") to assist Duke Energy's Corporate Audit Department, of which, all work will be managed and supervised by Duke Energy's Project Sponsor. Such services may include but not be limited to the following:

- Assistance with preparing supporting workpapers
- Assistance with assessing processes and controls
- Assistance with evaluating compliance requirements
- Assistance in analyzing, validating and testing data
- Assistance with inputting information in software/ reports as needed
- Assistance with preparing various documents related to projects

Consultant's Assigned Staff resource will be working under the direction of Duke Energy Corporate Audit personnel. Duke Energy is responsible for the proper recording of transactions in the books of accounts, for the safeguarding of assets, internal controls, and for the substantial accuracy of the financial information. As the assigned staff will be working under the direction of Duke Energy's Corporate Audit personnel, Dixon Hughes Goodman makes no representation regarding the sufficiency of the work performed. The Assigned Staff's work does not include any procedures designed to discover defalcations, fraudulent activity, or other irregularities, should any exist.

Consultant will be available to provide internal audit staff augmentation services to Duke Energy, including assistance with planning, documentation, testing, reporting and project management. As Assigned Staff will be working under the direction of Duke Energy's internal audit staff, Duke Energy's corporate audit staff should conclude on the sufficiency of the procedures performed. DHG will perform internal audit staff augmentation services as a staff augmentation arrangement and will not be providing an opinion on the application of accounting principles, Duke Energy's transactions, financial statements or internal controls. In addition, Duke Energy agrees to notify the Vice President of Internal Audit as to this arrangement. As the services listed above do not constitute an examination, audit, attestation, special report or agreed-upon procedures engagement as those services are defined under relevant AICPA standards, DHG will not express an opinion or other form of assurance on any of Duke Energy's financial statements or internal controls. In addition, DHG has no obligation to perform any procedures beyond those requested under the direction of Duke Energy personnel.

Assigned Staff shall report directly to the assigned supervising manager or department head at Duke Energy, and Duke Energy shall be responsible for the direction, supervision, and quality review of the work product of Consultant personnel. Consultant is not responsible for the day-to-day supervision and direction of such Consultant personnel in performing the Services. Upon the request of Duke Energy, Consultant will provide weekly status reports. Changes in scheduling or resource utilization will be communicated in writing or by

email. No changes will be made without the approval of either Consultant or the designated Duke Energy representative (whose signature appears on this Statement of Work).

II. DELIVERABLES

As this agreement is staff augmentation in nature there will be no deliverables provided to Duke Energy from DHG. All assistance and work performed by Assigned Staff will be considered the work product of Duke Energy Corporate Audit.

III. MAJOR ACTIVITIES AND TIMELINE:

Commencement Date: May 16, 2016

Completion Date: December 31, 2016, or as determined by Duke Energy, not to exceed one year.

IV. ACCEPTANCE PROCEDURE (if applicable):

The Consultant will provide the Services through December 31, 2016 or as determined by Duke Energy. Duke Energy is responsible for identifying and communicating any deliverables schedule to Consultant, and providing review and project management oversight in these areas.

V. INFORMATION/FACILITIES/RESPONSIBILITIES TO BE FURNISHED BY DUKE ENERGY:

Office or cube space and computers (if necessary) for Dixon Hughes Goodman personnel to facilitate working on-site with Duke Energy Corporate Audit personnel.

VI. OTHER REQUIREMENTS OR SPECIAL CONDITIONS (Engagement Fees and Expenses):

The billing rate for Dixon Hughes Goodman's Lead-level resource will be \$145 per hour. Billed time will be based on actual hours worked. Estimated fees for the work are estimated at \$104,400.

Actual expenses (if applicable) will be billed as incurred upon preapproval of Duke Energy Management.

Payments will be made 45 days after receipt of the invoices, which will be submitted monthly as the work is completed in accordance with the Master Services Agreement. Each invoice will include the names of each team member involved in the project, the hours incurred during the billing cycle, and a summary of the work performed. The invoice will also include a breakdown of the actual expenses incurred by type, if applicable.

VII. PRINCIPAL REPRESENTATIVES

Duke Energy Business Services LLC.

Name:
Address: 550 S. Tryon St.
DEC21A
Charlotte, NC 28202
28202
Phone: (704) 382-3896
Fax:
Email:

Dixon Hughes Goodman, LLP.

Name: Chris Ricchiuto
Address: 214 N. Tryon St.
Suite 2200
Charlotte, NC 28202
Phone: (704) 367-7046
Fax: (704) 367-7787
Email: chris.ricchiuto@dhgllp.com

VIII. OTHER CONSULTANT PARTICIPANTS

DUKE ENERGY BUSINESS SERVICES LLC.

By: *Olga Huba*
Title: *Associate Sourcing Specialist*
Date: *April 26, 2016*

DIXON HUGHES GOODMAN, LLP

By: *Christina Ricchiuto*
Title: Director
Date: April 25, 2016



2016 Duke Energy Market Study

2016 Market Study Evidence Submission Form

Applicability: Duke Energy Business Services (DEBS), Duke Energy Carolinas (DEC), Duke Energy Progress (DEP)

Originator: State Regulatory Compliance, Ethics and Compliance, Lindsey Adams and Marcos Roberson

Approval: DEC/DEP Rates and Regulatory

Due Date: 10/31/2016

Applicable Regulatory Condition:

Docket No. E-2, Sub 998

Docket No. E-7, Sub 986

5.2 Procurement or Provision of Goods and Services by DEC or DEP to or from Affiliates or Nonpublic Utility Operations.

Please populate and submit this form along with all evidence documentation to Bernadette Raftery (Bernadette.Raftery@duke-energy.com) by 10/31/16:

- 1) Use the drop down list below to select the DEBS function for which you are attesting:

Investor Relations

If attesting only for a specific area within a function (i.e. CIS IT Support), please list below:

- 2) Provide a description of the function and the service offerings provided to DEC/DEP by the function:

- Shareholder Services - Serves as enterprise's (including DEC's and DEP's) in-house stock transfer agent, dividend paying agent, and registrar. Handles all stock transfer work and communications with individual investors.
- Investor Relations – Ensure investment community understands Duke Energy's business strategy and investment value proposition, ensure its executive management, Board of Directors and employees understand the stock price performance compared to Duke Energy's peers and help them gain an appreciation of the investment community views/perspective. Effectively target and convert institutional and retail investors to Duke Energy ownership. Build and strengthen relationships with key stakeholders in the investment community.



2016 Duke Energy Market Study

3) Provide a short narrative explaining how the service function performs a cost-benefit analysis:

- Periodically completes outsourcing review for Shareholder Services

4) Provide a listing of all evidence document names being submitted with this form as proof of performing a market study within the last 4 years (2012-2016) (i.e. Benchmark Analysis_2015.ppt):

- OutsourcingShareholderServices_2013.final.pptx

The provided document is confidential.

5) Provide the current employee to contingent worker ratio for the function (i.e. total count, FTE's and CW's and %):

- 12FTE and 3 CWs

6) Use the selectors below to indicate where the Service Function should be plotted on the Feasibility Matrix:

a) *Impact to the Regulated Utility (How crucial is it to utility operations and compliance?)*

1-Low to 10-High: 4

b) *Relationship to Core Competency (How unique is the service; do many firms offer similar services on the open market; is it fairly specialized?)*

1-Low to 10-High: 5

7) Provide the appropriate point of contact for the Service Function (*Who will be able to interview with an auditor and attest to the market study process for the Service Function described in this document*):

Responder Name:	Joe Crapster
Job Title:	Director, Shareholder Services
Organization/Department:	Finance/Investor Relations
Telephone Number:	704-382-5290



2016 Duke Energy Market Study

Email Address: joseph.crapster@duke-energy.com

Date Form was Completed: 10/28/2016

*Return completed form and all evidence documentation to Bernadette Raftery
(Bernadette.Raftery@Duke-Energy.com) by 10/31/16.*

Docket No. E-7, Sub 986D

2016 Duke Energy Market Study

Investor Relations Submission Form

Attachment Filed under Seal



2016 Duke Energy Market Study

2016 Market Study Evidence Submission Form

Applicability: Duke Energy Business Services (DEBS), Duke Energy Carolinas (DEC), Duke Energy Progress (DEP)

Originator: Corporate Compliance, Ethics and Compliance, James Hollingsworth

Approval: DEC/DEP Rates and Regulatory

Due Date: 10/31/2016

Applicable Regulatory Condition:

Docket No. E-2, Sub 998

Docket No. E-7, Sub 986

5.2 Procurement or Provision of Goods and Services by DEC or DEP to or from Affiliates or Nonpublic Utility Operations.

Please populate and submit this form along with all evidence documentation to James Hollingsworth James.Hollingsworth@duke-energy.com by 10/31/2016.

- 1) Use the drop down list below to select the DEBS function for which you are attesting:

Legal

If attesting only for a specific area within a function (i.e. CIS IT Support), please list below:

- NA

- 2) Provide a description of the function and the service offerings provided to DEC/DEP by the function:

Renders services relating to labor and employment law, litigation, contracts, rates and regulatory affairs, environmental matters, financing, financial reporting, real estate and other legal matters.

- 3) Provide a short narrative explaining how the service function performs a cost-benefit analysis:

Attorneys within the legal department often engage outside counsel for assistance on DEC's and DEP's legal matters. Reasons for engagement range from little to no capacity to take on new legal assignments to a requirement for specialized knowledge or expertise of outside counsel for a particular matter.



2016 Duke Energy Market Study

In 2014, the Department implemented an outside counsel strategy designed to limit the number outside counsel law firms engaged by the department, reduce outside counsel costs, and create a uniform manner by which Duke Energy engages outside counsel. A committee was formed to evaluate a program that would accomplish a reduction in firms and reduce costs without sacrificing the quality of legal counsel the company was receiving.

- The outside counsel strategy consists of 3 tiers of law firms:
 - o 9 law firms are in Tier 1
 - o 10 law firms (plus law firms identified as minority owned) are in Tier 2
 - o All other firms are Tier 3

- The department's goals are :
 - o To send 60% of its outside counsel work to Tier 1 firms
 - o 30% to Tier 2 firms
 - o 10% to Tier 3 firms

Note: Special fee arrangements are negotiated in advance annually with Tier 1 and Tier 2 firms. Firms take into account the potential volume they can expect to set competitive fee arrangements.

- A Duke Energy relationship manager negotiates the overall fee arrangements with input from the in-house attorneys that utilize the firm and the Department's management.
- Attorneys are required to follow the process for engaging outside counsel and use a standard engagement agreement for all firms.
- To engage a firm outside of Tier 1 or Tier 2, the in-house attorney must notify the Department's legal portfolio manager with business justification for request to engage firm.
- Progress toward the goal is reviewed monthly by the Department's management.
- They review newly opened matters, percentage of hours worked by each firm tier, amount of spend by firm, and other key metrics. Total savings are tracked and reported to the Department's management as part of the monthly progress meetings.

4) Provide a listing of all evidence document names being submitted with this form as proof of performing a market study within the last 4 years (2012-2016) (i.e. Benchmark Analysis_2015.ppt):

- Outside Counsel Strategy 2015 Summary

5) Provide the current employee to contingent worker ratio for the function (i.e. total count, FTE's and CW's and %):

- 163 FTE
- 17 CW



2016 Duke Energy Market Study

6) Use the selectors below to indicate where the Service Function should be plotted on the Feasibility Matrix:

a) *Impact to the Regulated Utility (How crucial is it to utility operations and compliance?)*

1-Low to 10-High: 9

b) *Relationship to Core Competency (How unique is the service; do many firms offer similar services on the open market; is it fairly specialized?)*

1-Low to 10-High: 5

7) Provide the appropriate point of contact for the Service Function (*Who will be able to interview with an auditor and attest to the market study process for the Service Function described in this document*):

Responder Name:	Gonzalo Frias
Job Title:	Legal Vendor Portfolio Manager & Counsel
Organization/Department:	Legal
Telephone Number:	980-373-1347
Email Address:	Gonzalo.Frias@duke-energy.com
Date Form was Completed:	10/31/2016

Return completed form and all evidence documentation to James Hollingsworth at James.Hollingsworth@duke-energy.com by 10/31/2016

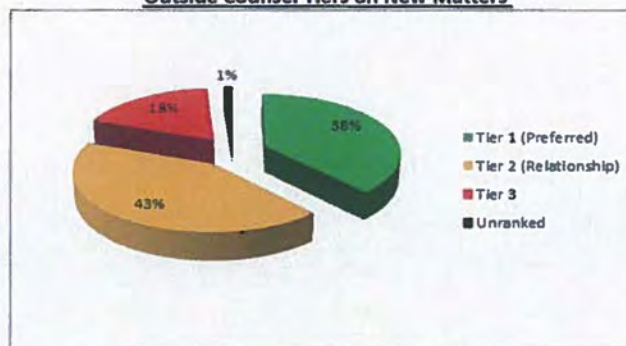
Evidence:

OUTSIDE COUNSEL STRATEGY 2015 SUMMARY

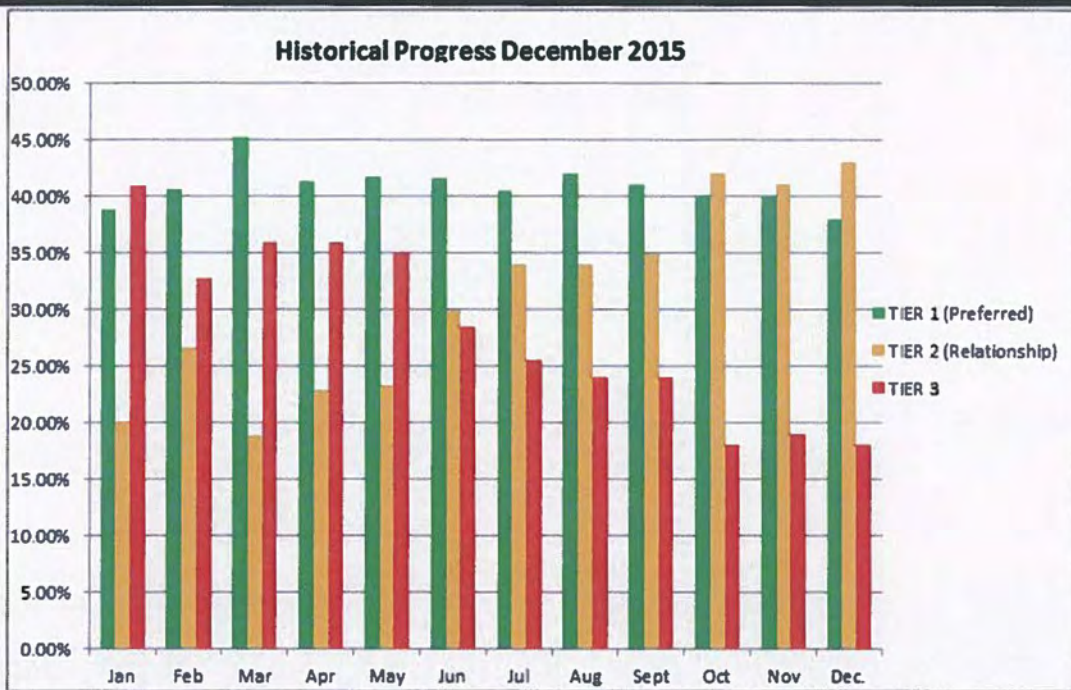
We made significant progress toward our 60-30-10 goal last year. Measured by number of hours, we sent approximately **38%** of our work to **Tier 1 (Preferred)** firms, **43%** to **Tier 2 (Relationship)** firms, and **18%** to **Tier 3** firms.

- Top 12 firms (by spend) were either Tier 1 or Tier 2.
- By second half of 2015, we had almost universal compliance with the outside counsel selection process.
- Our total number of law firms engaged was down by about **12%** compared to 2014.
- Looking at the top 10 firms by spend, we increased our purchasing power by spending **61.7%** of our outside counsel budget with them, compared to **53.6%** in 2014.
- As a result of these efforts, we can attribute approximately **\$5.1 million in savings**. (See attached savings tracker.)
- In addition to the \$5.1 million in estimated savings, we achieved **\$916,890 in volume discount savings** in 2015.

Outside Counsel Tiers on New Matters



Duke Energy Market Study





2016 Duke Energy Market Study

2016 Market Study Evidence Submission Form

Applicability: Duke Energy Business Services (DEBS), Duke Energy Carolinas (DEC), Duke Energy Progress (DEP)

Originator: State Regulatory Compliance, Ethics and Compliance

Approval: DEC/DEP Rates and Regulatory

Due Date: 10/31/2016

Applicable Regulatory Condition:

Docket No. E-2, Sub 998

Docket No. E-7, Sub 986

5.2 Procurement or Provision of Goods and Services by DEC or DEP to or from Affiliates or Nonpublic Utility Operations.

*Please populate and submit this form along with all evidence documentation to **Bernadette Raftery** (Bernadette.Raftery@duke-energy.com) 704-382-0497 by 10/31/16:*

- 1) Use the drop down list below to select the DEBS function for which you are attesting:

Meters

If attesting only for a specific area within a function (i.e. CIS IT Support), please list below:

- NA

- 2) Provide a description of the function and the service offerings provided to DEC/DEP by the function:

Supply Chain provides essential services and measurable value for Duke Energy Business Units and Duke Energy Corporation's affiliates through a highly skilled and engaged team focused on strategically sourcing value-based contracts, excellence in materials management, warehousing and logistics, and efficient commercial processes. The meter procurement and materials management is embedded within our Transmission and Distribution. Within this organization, Duke Energy supports the meter commodities as part of the normal course of supply chain operations and does not have dedicated staff specific to the commodity. The broader Supply Chain organization provides services for:

- Procurement of goods and services;



2016 Duke Energy Market Study

- Category management of our large specialized segments of spend, which includes strategic sourcing, supplier engagement, and contract management;
- Warehouse operations of our distribution centers, operation centers, and plant storerooms;
- Inventory management;
- Accounts Payable; and
- Supplier engagement and diversity

3) Provide a short narrative explaining how the service function performs a cost-benefit analysis:

Duke Energy does not have dedicated function or staff for Meter supply chain operations.

The supply chain organization does routinely perform extensive benchmarking on our operating costs and value generated across the organization. Annual benchmarking initiatives include:

- Participation in Utility Purchasing Management Group (UPMG) Supply Chain Metrics Benchmarking Study. This study typically includes 25 or more large electric utility companies. Metrics that are used for comparison include: purchasing budget as a percent of total purchasing spend; total purchasing employees as a percent of total company employees; total purchasing spend per purchasing employee; cost of supply chain services as a percent of total revenue; and total savings as a percent of purchasing spend.
- Participation in Like-Sized Utility Benchmarking study. This study includes 10-12 similarly sized Investor Owned Electric and Gas Utilities. Participants include Exelon, Pacific Gas and Electric; NextEra, ConEdison, SoCal Edison, among others. Metrics that are used for comparison include: Sourcing costs as a percent of managed spend; supply management employee per \$1B in managed spend; and sourcing cost as a percent of managed spend by business unit.
- Participation in CAPS Research benchmarks. CAPS (Center for Advance Procurement Study) is affiliated with the Institute of Supply Management (ISM) and Arizona State University. CAPS conducts a series of benchmarking studies in which Duke Energy participates. These include both industry specific studies and cross industry studies. Metrics that are used for comparison include: supply management employees as a percent of total organization employees; percent of supply management employees by function; supply management operating expense as a percent of total spend; supply management operating expense per supply management employee; as well as many other operational metrics.

In addition, Supply Chain periodically engages consulting firms to conduct assessments of our operating model and cost efficiencies.

4) Provide a listing of all evidence document names being submitted with this



2016 Duke Energy Market Study

form as proof of performing a market study within the last 4 years (2012-2016) (i.e. Benchmark Analysis_2015.ppt):

- CAPS 2016 Survey Comparative_DukeEnergy.pdf - partially confidential
- Like Size Utility 2015 Metric Report 2015_1109.pdf - partially confidential
- UPMG Benchmarking Report 2016 Final.pdf - confidential

5) Provide the current employee to contingent worker ratio for the function (i.e. total count, FTE's and CW's and %):

As discussed previously, Supply Chain does not have dedicated FTE's or CW's for the procurement, sourcing, materials management and warehousing of meters. The the supply chain function for the Meter commodity is include within the Transmission & Distribution ("T&D") Supply Chain function. Therefore, the ratio would be 0:0.

6) Use the selectors below to indicate where the Service Function should be plotted on the Feasibility Matrix:

a) *Impact to the Regulated Utility (How crucial is it to utility operations and compliance?)*

1-Low to 10-High: 10

b) *Relationship to Core Competency (How unique is the service; do many firms offer similar services on the open market; is it fairly specialized?)*

Supply Chain is core to utility operations. Supply Chain is responsible for all of the procurement, sourcing, materials management and warehouse operations for all goods and services used in T&D. The organization has specialized skills in the commodities that it both sources and manages. Third party firms that offer outsourced services are typically limited to indirect categories such as office supplies, IT hardware and services, and high volume maintenance, repair and operations (MRO) supplies (such as safety, janitorial, fittings, and tools). Supply Chain does leverage an integrated supply program; third party supplier to manage MRO supplies and high volume electrical materials. For all other categories such as meters, we have determined that it requires highly specialized capabilities that are not available externally to manage the spend and it aligns with our core capabilities.

1-Low to 10-High: 10

7) Provide the appropriate point of contact for the Service Function (*Who will be able to interview with an auditor and attest to the market study process for the Service Function described in this document*):



2016 Duke Energy Market Study

Responder Name: Ian McCulloch

Job Title: Managing Director of Supply Chain Strategy and Operations

Organization/Department: Supply Chain

Telephone Number: (704) 382-4844

Email Address: ian.mcculloch@duke-energy.com

Date Form was Completed: November 1, 2016

***Return completed form and all evidence documentation to Bernadette Raftery
(Bernadette.raftery@duke-energy.com) by 10/31/16.***

Docket No. E-7, Sub 986D

2016 Duke Energy Market Study

Meters and Supply Chain Submission Form

Partial Attachment Filed under Seal



2016 Supply Management Metrics (Cross-Industry) Report

July 2016

Page 1 of 2

	Duke Energy Corporation	Utilities Industry Profile				Process Sector Profile				Population Population Average	
		Minimum	Median	Mean	Maximum	Minimum	Median	Mean	Maximum		
Breakdown of Spend Categories											
1	Sourceable spend as a percent of sales/revenue dollars	40.5%	18.5%	28.2%	32.1%	69.6%	2.5%	29.4%	35.2%	79.1%	41.8%
2	Percent of sourceable spend managed/controlled by supply management	83.2%	30.4%	83.2%	79.4%	98.3%	30.4%	88.1%	84.5%	100.0%	84.1%
3	Percent of sourceable spend that is direct	89.7%	0.0%	38.9%	35.8%	89.7%	0.0%	21.7%	32.1%	93.3%	53.3%
4	Percent of sourceable spend that is indirect	10.3%	10.3%	63.1%	64.2%	100.0%	8.7%	78.3%	67.9%	100.0%	46.7%
5	Percent of managed spend that is direct	88.4%	0.0%	36.2%	42.4%	100.0%	0.0%	21.5%	37.8%	100.0%	55.3%
6	Percent of managed spend that is indirect	11.6%	0.0%	63.8%	57.6%	100.0%	0.0%	78.5%	62.4%	100.0%	44.7%
The Supply Management Group											
7	Supply management operating expense as a percent of sourceable spend	1.2%	0.2%	1.0%	0.9%	1.4%	0.1%	0.7%	0.7%	1.4%	1.2%
8	Supply management operating expense as a percent of managed spend	1.5%	0.3%	1.3%	1.3%	3.9%	0.1%	0.8%	1.0%	3.9%	1.5%
9	Supply management employees as a percent of company employees	3.0%	0.6%	1.1%	1.7%	4.7%	0.1%	1.0%	1.5%	4.7%	1.8%
10	Percent of supply management employees that are strategic	40.9%	8.6%	30.1%	34.6%	68.3%	8.6%	31.4%	39.5%	100.0%	38.1%
11	Percent of supply management employees that are operational	59.1%	33.7%	69.9%	65.4%	91.4%	0.0%	68.6%	60.5%	91.4%	61.9%
Efficiency Metrics											
12	Supply management return on investment (cost reduction and cost avoidance)	169.2%	4.0%	261.2%	536.6%	1644.5%	1.1%	370.8%	599.4%	1644.5%	720.2%
13	Supply management return on investment (cost reduction only)	125.5%	74.0%	222.4%	351.8%	1071.9%	1.1%	304.1%	413.6%	1609.7%	535.1%
14	Cost reduction savings as a percent of managed spend	1.9%	1.1%	2.5%	3.2%	7.3%	0.1%	2.2%	3.2%	14.2%	4.1%
15	Cost avoidance savings as a percent of managed spend	0.7%	0.0%	0.7%	1.3%	3.8%	0.0%	0.9%	1.5%	3.8%	2.2%
16	Percent of active suppliers that account for 80% of sourceable spend	1.3%	1.3%	5.9%	6.8%	20.0%	0.8%	5.0%	5.8%	21.4%	6.2%

Data Year: 2015
 Release Date: July 2016



Like Size Utility Supply Chain Performance Benchmark 2015
 Prepared by CAPS Research

Release Date: November 5, 2015

#	Benchmark	Mean	Minimum	Maximum	Median
<i>Primary Benchmarks</i>					
1	Sourcing cost as a percent of total managed spend: (n = 10)	0.6%	0.2%	1.2%	0.4%
2	Total savings as a percent of total managed spend: (n = 9)	5.4%	0.7%	11.7%	4.6%
3	Hard cost savings (Early Payment Discount, Rebates, and Budget Savings) as a percent of total managed spend: (n = 7)	2.1%	0.1%	4.3%	0.9%
4	Supply management Return on Investment (ROI) calculated with Cost Reduction and Cost Avoidance savings: (n = 9)	589.7%	54.2%	1487.9%	491.2%
	Supply management Return on Investment (ROI) calculated with Cost Reduction savings only: (n = 6)	500.1%	108.0%	1002.7%	406.6%
	Supply management Return on Investment (ROI) calculated with Cost Avoidance savings only: (n = 8)	288.3%	54.2%	556.7%	258.8%

Like Size Utility Supply Chain Performance Benchmark 2015
 Prepared by CAPS Research

Release Date: November 5, 2015

#	Benchmark	Mean	Minimum	Maximum	Median
8	Average line fill rate for:				
	Electric T&D (n = 8)	93.8%	86.9%	99.0%	95.5%
	Gas T&D (n = 3)	i.d.			
	Nuclear Generation (n = 4)	88.0%	78.0%	99.5%	87.2%
	Fossil, Hydro, and Renewable Generation (n = 5)	89.2%	76.4%	99.7%	93.1%
	Total Utility (n = 8)	93.7%	80.5%	99.6%	95.3%
9	Total lines per material handler for:				
	Electric T&D (n = 10)	7,458	3,300	12,392	5,950
	Gas T&D (n = 4)	6,726	1,429	10,369	7,554
	Nuclear Generation (n = 6)	4,578	2,601	6,818	4,493
	Fossil, Hydro, and Renewable Generation (n = 7)	3,143	0	7,461	2,825
	Total Utility (n = 10)	7,792	3,300	16,423	6,426
10	Warehouse cost per line for:				
	Electric T&D (n = 9)	\$28.32	\$4.66	\$95.84	\$16.80
	Gas T&D (n = 3)	i.d.			
	Nuclear Generation (n = 5)	\$25.01	\$12.37	\$37.00	\$26.00
	Fossil, Hydro, and Renewable Generation (n = 6)	\$73.77	\$0.00	\$217.83	\$27.00
	Total Utility (n = 10)	\$34.61	\$4.66	\$115.00	\$21.04

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#	Benchmark	Mean	Minimum	Maximum	Median
11	Inventory turns for:				
	Electric T&D (n = 9)	2.0	1.3	3.2	1.9
	Gas T&D (n = 4)	2.2	1.7	2.7	2.2
	Nuclear Generation (n = 5)	1.4	0.2	5.5	0.5
	Fossil, Hydro, and Renewable Generation (n = 7)	0.3	0.0	0.4	0.3
12	Percent of returns against lines issued for:				
	Electric T&D and Gas T&D (n = 8)	9.6%	3.0%	22.0%	7.2%
	Nuclear Generation (n = 7)	11.0%	5.5%	19.7%	9.0%
	Fossil, Hydro, and Renewable Generation (n = 8)	9.0%	0.0%	22.0%	6.5%
	Percent of dollars returned against lines issued for:				
	Electric T&D and Gas T&D (n = 8)	15.0%	5.8%	31.6%	13.6%
	Nuclear Generation (n = 7)	28.8%	13.2%	46.1%	30.0%
	Fossil, Hydro, and Renewable Generation (n = 8)	24.2%	0.0%	41.9%	27.0%

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#	Benchmark	Mean	Minimum	Maximum	Median
13	Inventory change percent for:	See Addendum A for Trend Charts			
	Electric T&D				
	2014 (n = 9)	16.5%	1.2%	84.8%	6.0%
	2013 (n = 9)	10.4%	-1.0%	28.0%	9.0%
	2012 (n = 7)	5.4%	-18.0%	13.2%	9.9%
	Gas T&D				
	2014 (n = 4)	13.7%	-9.0%	24.6%	19.7%
	2013 (n = 4)	4.3%	-9.9%	18.0%	4.5%
	2012 (n = 3)	i.d.			
	Nuclear Generation				
	2014 (n = 6)	2.7%	-7.0%	8.5%	3.3%
	2013 (n = 6)	5.6%	2.0%	10.0%	5.7%
	2012 (n = 6)	6.2%	1.0%	14.7%	5.3%
	Fossil Generation and Hydro Generation				
	2014 (n = 9)	6.7%	-10.0%	30.7%	6.8%
	2013 (n = 9)	23.1%	-2.1%	145.0%	4.0%
	2012 (n = 9)	-125.3%	-1153.0%	27.0%	0.9%
	Renewable Generation				
	2014 (n = 5)	-4.7%	-16.0%	0.5%	-1.2%
	2013 (n = 5)	14.6%	-5.5%	57.0%	9.5%
	2012 (n = 5)	28.3%	0.0%	100.0%	5.6%

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#	Benchmark	Mean	Minimum	Maximum	Median
16	Supplier Diversity Spend as a percent of managed spend: (n = 10)	21.0%	3.9%	58.9%	13.3%
	Percent of managed spend with the following socioeconomic categories:				
	Women-owned Business Enterprises (n = 9)	13.1%	2.8%	47.0%	10.4%
	Minority-owned Business Enterprises (n = 9)	18.3%	2.2%	47.0%	17.7%
	Small Disadvantaged Businesses (n = 3)	4.4%			
	Women-owned Small Businesses (n = 3)	2.8%			
	Veteran-owned Small Businesses (n = 5)	2.0%	0.5%	6.0%	1.1%
	Service Disabled Veteran-owned Small Businesses (n = 4)	1.2%	0.0%	2.4%	1.2%
	HUBZone Businesses (n = 3)	0.2%			
	LGBTQ Businesses (n = 0)	i.d.			
	Other diverse categories (n = 0)	i.d.			
16	Supply management employees per \$1B managed spend: (n = 10)	56.9	14.2	112.5	53.6

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#	Benchmark	Mean	Minimum	Maximum	Median
<i>Secondary Benchmarks</i>					
17	Electric sourcing cost as a percent of managed spend: (n = 9)	0.15%	0.01%	0.50%	0.11%
	Gas sourcing cost as a percent of managed spend: (n = 6)	0.08%	0.00%	0.18%	0.08%
	IT/Telecom sourcing cost as a percent of managed spend: (n = 7)	0.05%	0.01%	0.12%	0.04%
	Corporate and Shared Services sourcing cost as a percent of managed spend: (n = 9)	0.09%	0.00%	0.19%	0.09%
	Nuclear generation sourcing cost as a percent of managed spend: (n = 8)	0.04%	0.00%	0.10%	0.04%
	Fossil, Hydro, and Renewable generation sourcing cost as a percent of managed spend: (n = 8)	0.09%	0.04%	0.23%	0.07%
	Supplier quality assurance sourcing cost as a percent of managed spend: (n = 2)	i.d.			
	Warehousing (Inventory buying) sourcing cost as a percent of managed spend: (n = 5)	0.10%	0.06%	0.15%	0.07%
	Supplier diversity sourcing cost as a percent of managed spend: (n = 7)	0.03%	0.00%	0.06%	0.02%
	Supply Chain operations sourcing cost as a percent of managed spend: (n = 7)	0.07%	0.04%	0.10%	0.07%

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#	Benchmark	Mean	Minimum	Maximum	Median
18	Electric sourcing cost as a percent of Electric T&D managed spend: (n = 8)	0.4%	0.1%	1.2%	0.2%
	Gas sourcing cost as a percent of Gas T&D managed spend: (n = 6)	0.6%	0.3%	1.2%	0.5%
	IT/Telecom sourcing cost as a percent of IT/Telecom managed spend: (n = 5)	0.6%	0.3%	1.2%	0.4%
	Corporate and Shared Services sourcing cost as a percent of Corporate and Shared Services managed spend: (n = 7)	0.8%	0.2%	2.7%	0.3%
	Nuclear generation sourcing cost as a percent of nuclear generation managed spend: (n = 7)	1.6%	0.2%	7.0%	0.9%
	Fossil, Hydro, and Renewable generation sourcing cost as a percent of fossil generation managed spend: (n = 7)	0.6%	0.1%	1.3%	0.4%
19	Procurement Card (PCard) spend as a percent of managed spend: (n = 10)	2.0%	0.4%	5.1%	2.0%

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#	Benchmark	Mean	Minimum	Maximum	Median
20	Early Payment Discounts as a percent of total savings: (n = 9)	1.6%	0.0%	11.4%	0.4%
	Rebates as a percent of total savings: (n = 9)	0.8%	0.0%	3.2%	0.0%
	Budget savings (Cost Reduction) as a percent of total savings: (n = 9)	33.2%	0.0%	100.0%	26.5%
	Business case savings as a percent of total savings: (n = 9)	4.8%	0.0%	43.0%	0.0%
	(RFP) savings (average price minus final price) as a percent of total savings: (n = 9)	30.2%	0.0%	93.3%	0.0%
	Cost Avoidance/Total Cost of Ownership savings as a percent of total savings: (n = 9)	28.3%	0.0%	71.5%	14.3%
	Other savings as a percent of total savings: (n = 9)	1.2%	0.0%	10.6%	0.0%
21	Early Payment Discounts as a percent of managed spend: (n = 3)	i.d.			
	Rebates as a percent of managed spend: (n = 3)	i.d.			
	Budget savings (Cost Reduction) as a percent of managed spend: (n = 6)	2.2%	0.4%	4.1%	1.9%
	Business case savings as a percent of managed spend: (n = 1)	i.d.			
	(RFP) savings (average price minus final price) as a percent of managed spend: (n = 4)	3.8%	1.7%	8.2%	2.7%
	Cost Avoidance/Total Cost of Ownership savings as a percent of managed spend: (n = 8)	1.6%	0.1%	5.0%	1.0%
	Other savings as a percent of managed spend: (n = 1)	i.d.			

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#	Benchmark	Mean	Minimum	Maximum	Median
22	Savings methodologies: What's included, how is it tracked/reported, and to whom the savings are reported: (n = 10)	See Addendum B			
23	Percent of organizations that use a supplier integration model: (n = 10)	70.0%			
	Percent of organizations that are currently looking to implement a supplier integration model in the near future:	20.0%			
	Percent of organizations that have no plans to implement a supplier integration model in the near future:	10.0%			
	Percent of organizations in which the supplier integration is: (n = 9)				
	Total	68.7%			
	Partial	33.3%			
	Services performed by the integrated supplier: (n = 6)	See Addendum C			
	Percent of the following functions that are being managed by an integrated Supplier:				
	Buying (n = 4)	33.6%	2.5%	95.0%	18.5%
	Warehousing (n = 4)	48.3%	25.0%	95.0%	36.5%
	Transportation (n = 4)	39.5%	5.0%	100.0%	26.5%
	Other (n = 1)	i.d.			

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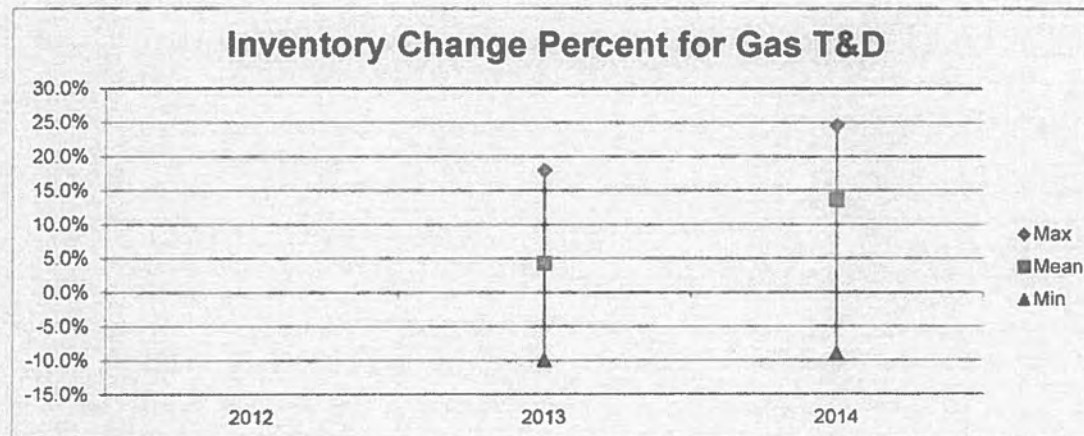
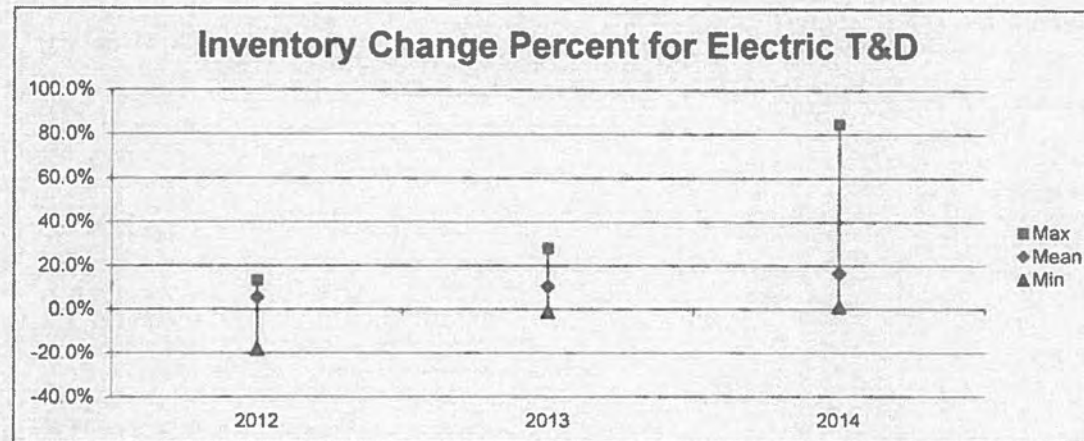
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#	Benchmark	Mean	Minimum	Maximum	Median
24	Average number of units (distribution centers, powerhouses, power plants, solar farms) for:				
	Electric T&D (n = 7)	22	0	75	5
	Gas T&D (n = 5)	34	6	77	33
	Nuclear Generation (n = 8)	7	1	22	3
	Hydro Generation (n = 8)	47	0	111	29
	Fossil Generation (n = 9)	67	3	248	20
	Renewable Generation (n = 6)	32	0	120	18
25	Percent of Supply Chain Groups that have a Contractor Safety Program: (n = 10)	80.0%			
	Percent of Supply Chain Groups that are currently developing/implementing a Contractor Safety Program:	10.0%			
	Percent of Supply Chain Groups that have no plans in the immediate future to develop a Contractor Safety Program:	10.0%			
	Percent of Contractor Safety Programs that are: (n = 8)				
	Centrally managed	50.0%			
	Managed by the business unit	50.0%			
26	Percent of organizations that included the following socioeconomic categories in their annual reporting for Supplier Diversity: (n = 9)				
	Women-owned Business Enterprises	100.0%			
	Minority-owned Business Enterprises	100.0%			
	Small Disadvantaged Businesses	33.3%			
	Women-owned Small Businesses	33.3%			
	Veteran-owned Small Businesses	55.6%			
	Service Disabled Veteran-owned Small Businesses	44.4%			
	HUBZone Businesses	44.4%			
	LGBTQ Businesses	11.1%			
	Other diverse categories	0.0%			

I.d. indicates insufficient data

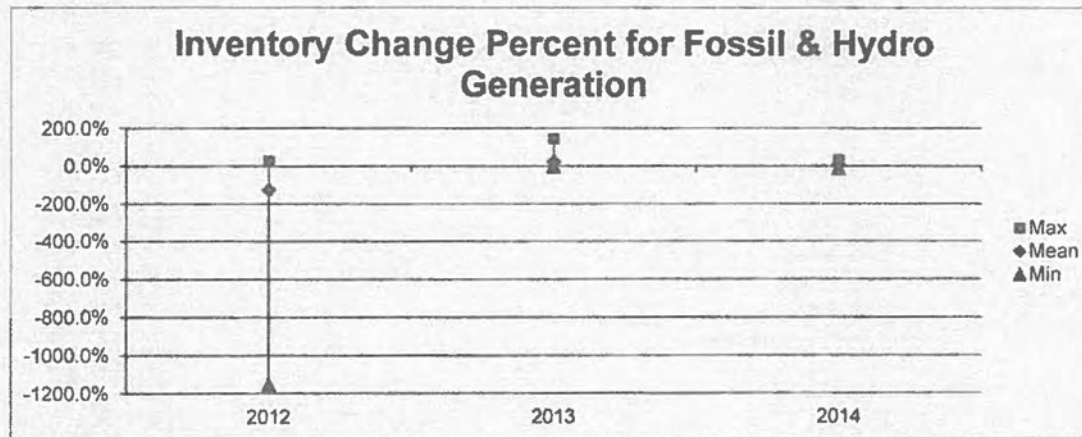
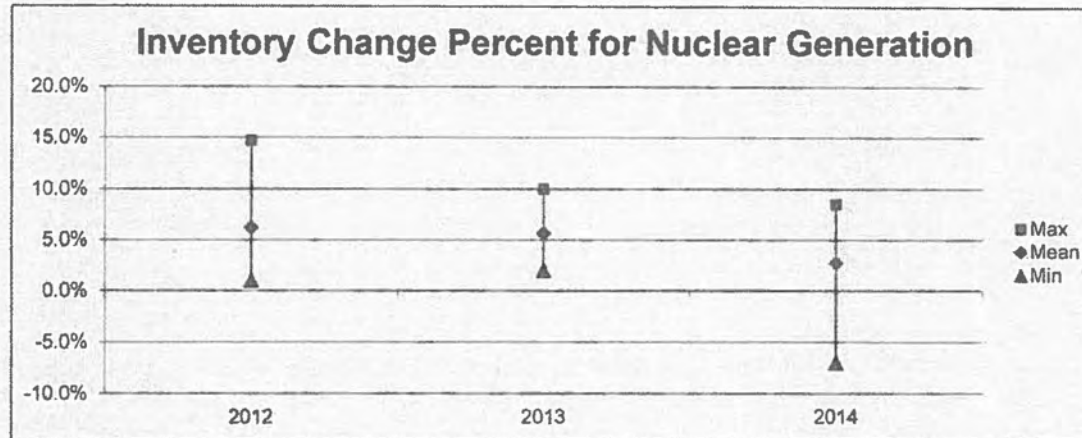
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Benchmark 13

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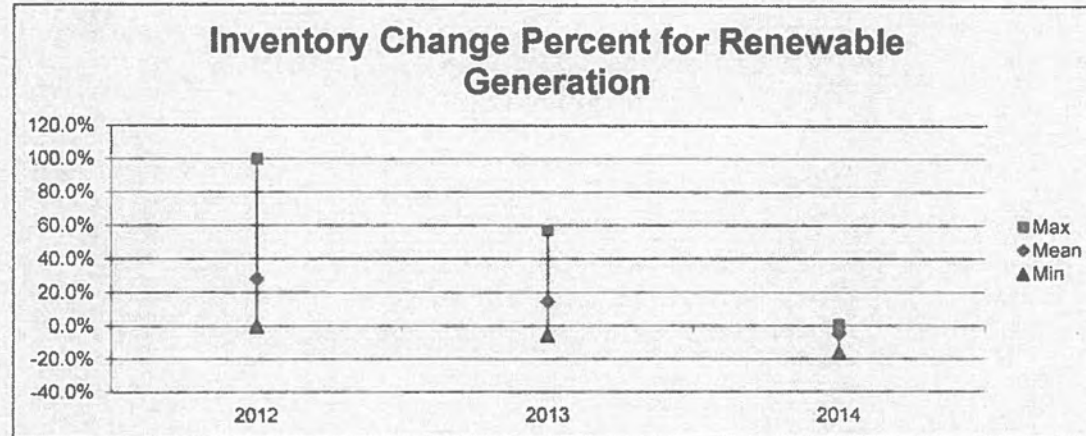
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Benchmark 13

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Addendum B
<p>Sourcing Saving Methodologies:</p>
<p>[Company] tracks and reports cost savings in four tiers: Tier 1 - Early Payment Discounts/Rebates. Tier 2 - Business case savings or cost reduction. Tier 3 - RFP savings. Tier 4 - Total Cost of Ownership Savings or Cost avoidance. Savings are tracked and reported monthly by analyst within the SC operations group. On a quarterly basis, Sourcing meets with the business unit to review/validate savings. Where applicable savings are directly applied to the Business unit's budget.</p>
<p>[Company] uses a Category Management methodology. All categories are included, except nuclear and fossil fuel power plant fuels. Savings are tracked by business unit and category and reported to the Chief Supply Officer.</p>
<p>[Company] uses a tool developed to provide an enterprise wide solution for documenting cost savings and cost avoidance occurrences. The tool provides a single database to enter, review, approve and report all of our cost savings and cost avoidances related to sourcing results and working cash improvements. Savings captured pertains to the O&M and Capital split, the annual baseline spend, as well as savings estimates expected each year of the agreement. Savings are calculated on an annualized basis for purposes of reporting savings. In order to promote consistency across the supply chain groups, the following sourcing savings guidance (in order of precedence) should be used when determining the savings amount that results from a sourcing effort: 1. Savings are determined from historical rates or unit prices paid in comparison to newly negotiated rates or unit prices. – Negotiated rebates, volume discounts and other commercial incentives may be included in the estimated savings model. 2. If no historical rate or unit price exists, an agreed and formal budgetary estimate with the business unit sponsor can be used as the basis for calculating savings. This assumes the budget reflects a sound cost estimate and not just a high level placeholder. 3. If both historical pricing and formal budgetary estimates are not available, the sourcing team must demonstrate that through their direct negotiations or innovative supply chain strategies they delivered savings above and beyond a simple RFP bid response. Sourcing team would identify savings opportunity and rationale for consideration.</p>
<p>[Company's] sourcing savings includes rebates, cost savings, and cost avoidance. It is kept on an excel spreadsheet and is one of Supply Chain's Key Performance Indicators, Savings as a percentage of total Spend. This information is shared with our business partners but not taken from any organization's bottom line.</p>
<p>Cost savings are cost reductions resulting from Procurement's involvement in a procurement project (e.g., a sourcing exercise) or procurement transaction. They include the following: 1. Reductions on the current price of materials or services from a budget line item perspective. 2. Reductions on the current price of materials or services from the last price paid. 3. Reductions on the current price from market price as estimated by the average of initial bids in an RFP. 4. Negotiated reductions from the price of single or sole source providers - typically from their proposed price going forward. 5. Reduction in the cost of internal operations that impact financial results (e.g., process improvements, outsourcing). 6. Recoveries from supplier contract audits. 7. Negotiated rebates. 8. Sale of scrap materials (net of any written off costs or costs associated with the sale). 9. Savings (or costs avoided) due to demand management/reductions.</p>

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Addendum B
Sourcing Saving Methodologies (continued):
<p>In 2014, [Company] only tracked partial year data on procurement savings due (in part) to the deployment and implementation of a new procurement to payables (P2P) platform as part of ongoing operational and service excellence initiatives within the company. Furthermore, new savings definitions were implemented in Q4 of 2014. Therefore, no procurement savings data will be reported in this year's survey to avoid any understatement of figures for savings identified through various sourcing efforts. [Company's] methodology to identifying procurement savings in 2014 is as follows: 1. Price Reduction (with or without historical price) – achieved through bidding or direct negotiations. If a historical price exists, the difference between new price and historical price is calculated as savings. If no historical price exists, the difference between the average of all valid bids (outliers excluded) and the winning bid is calculated as savings. For direct negotiations, the difference between historical price (if known) or the initial offer and the final negotiated price is calculated as savings. 2. Cash - Any easily identifiable savings that are not unit price related (e.g., early payment discounts, rebates or volume discounts, etc.). 3. Process – changes in business process of buying or managing goods or services more effectively (e.g., labor reductions, processes cost reductions, inventory cost reductions, etc.). Note: further adjustments to the definitions above were implemented at the start of 2015 and [Company] will report according to the new procurement savings definitions for future surveys.</p>
<p>Savings are normally calculated from budget i.e., if a budget is \$100 and we get a deal for \$80, a \$20 budget savings is achieved.</p>
<p>Savings are tracked in a customized application with a "ticket" for each savings realized by method/contract/category/project. It is reported monthly as part of the KPI for each Operations business area including Supply Chain. Savings are reported all the way up to EVP of Operations.</p>
<p>Savings dollars are tracked and reported in a monthly database. Savings are either "Capital" dollars or "Operations and Maintenance" dollars. Savings are reported monthly to the Chief Purchasing Officer and then shared with the respective Business Units</p>
<p>We include Hard Savings, Soft Savings and Cost Avoidance. If Savings are \$100K or greater, a Business Case is filled out and approved by each BU Controller. It is presented to the Savings Committee for Approval. If approved, realized savings are tracked monthly and reported. We are just starting to converse around taking Savings out of the budgets.</p>

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Addendum C
Services Performed by the Integrated Supplier:
[Company's] integrated supplier provides services related to procurement, spot buy sourcing, logistics, cross docking and limited inventory management of our MRO and pole line hardware categories. This includes: Pipe, valve and fittings, gaskets and seals, tools, safety, power transmission, and general MRO materials; as well as, high volume transmission and distribution materials and equipment. Our spend on these categories is in excess of \$200M.
Currently, DO (Electric) contracts with [Supplier] on about 700+ items. [Supplier] Purchases, Warehouses and Transports these items to the applicable Service Centers based on reservations from the field. There is currently a plan in place to add additional items to this contract with[Supplier].
Only one of the utilities has a supplier integrator. The answers below are percentages based on one of three utilities having this function.
Primarily buying and warehousing
They provide sourcing, procurement, warehouseing and delivery services. As needed, to support the needs of [Company], they provide kitting and direct job site delivery support with mobile warehousing.
Transportation (both inbound to the DC and distribution around state) and a small degree of truck loading services.

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 Prepared by CAPS Research
 Quartiles

Release Date: November 5, 2015

#	Benchmark	Quartile 1	Quartile 2	Quartile 3	Quartile 4
1	Sourcing cost as a percent of total managed spend	0.39%	0.45%	0.66%	1.20%
2	Total savings as a percent of managed spend	11.7%	9.5%	4.6%	1.8%
3	Hard cost savings (Early Payment Discounts, Rebates, and Budget Savings) as a percent of managed spend	4.3%	4.2%	0.9%	0.5%
4	Supply management Cost Reduction & Cost Avoidance Return on Investment (ROI)	1487.9%	859.8%	491.2%	255.6%
	Supply management Cost Reduction Return on Investment (ROI)	1002.7%	821.2%	406.6%	189.7%
	Supply management Cost Avoidance Return on Investment (ROI)	556.7%	442.9%	258.8%	142.3%
5	Accounts Payable (AP) personnel cost per AP employee	\$69,782	\$75,579	\$155,676	\$185,257
	Average number of invoices, including PCard and other automatic electronic invoices, processed per AP employee	720,951	47,332	40,187	31,917
	Average number of invoices, excluding PCard and other automatic electronic invoices, processed per AP employee	37,801	21,958	16,111	11,212
	Average cost per invoice processed	\$1.71	\$2.01	\$3.13	\$4.41
	Percent of invoices received electronically	99.6%	87.8%	73.8%	50.0%
	Percent of payments processed electronically	95.6%	83.0%	70.0%	67.0%
7	Number of active suppliers per \$1M managed spend	1.1	1.3	1.4	3.5

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 Quartiles

Release Date: November 5, 2015

#	Benchmark	Quartile 1	Quartile 2	Quartile 3	Quartile 4
8	Average line fill rate for:				
	Electric T&D	99.0%	96.0%	95.5%	92.1%
	Nuclear Generation	99.5%	97.0%	87.2%	78.2%
	Fossil, Hydro, & Renewable Generation	99.7%	97.3%	93.1%	79.6%
	Total Utility	99.6%	96.0%	95.3%	93.8%
9	Total lines per material handler for:				
	Electric T&D	12,392	10,206	5,950	5,533
	Gas T&D	10,369	9,796	7,554	4,484
	Nuclear Generation	6,818	5,619	4,493	3,424
	Fossil, Hydro, & Renewable Generation	7,461	4,073	2,825	1,786
	Total Utility	16,423	10,889	6,426	4,320
10	Warehouse cost per line for:				
	Electric T&D	\$10.10	\$16.80	\$40.00	\$95.84
	Nuclear Generation	\$19.58	\$26.00	\$30.08	\$37.00
	Fossil, Hydro, & Renewable Generation	\$12.00	\$27.00	\$112.00	\$217.83
	Total Utility	\$11.92	\$21.04	\$48.22	\$115.00

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 Quartiles

Release Date: November 5, 2015

#	Benchmark	Quartile 1	Quartile 2	Quartile 3	Quartile 4
11	Inventory turns for:				
	Electric T&D	3.2	2.4	1.9	1.7
	Gas T&D	2.7	2.5	2.2	1.9
	Nuclear Generation	5.5	0.8	0.5	0.3
	Fossil, Hydro, & Renewable Generation	0.4	0.4	0.3	0.2
12	Percent of returns against lines issued for:				
	Electric T&D and Gas T&D	4.4	7.2	14.3	22.0
	Nuclear Generation	8.5	9.0	12.8	19.7
	Fossil, Hydro, & Renewable Generation	3.5	6.5	14.1	22.0
15	Supplier Diversity spend as a percent of managed spend	58.9%	25.5%	13.3%	10.4%
	Percent of managed spend with the following socioeconomic categories:				
	Women-owned Business Enterprises	47.0%	14.0%	10.4%	4.7%
	Minority-owned Business Enterprises	47.0%	26.5%	17.7%	6.5%
	Veteran-owned small businesses	6.0%	1.4%	1.1%	1.0%
	Service Disabled Veteran-owned small businesses	2.4%	2.3%	1.2%	0.0%
16	Supply management employees per \$1B managed spend	33.8	53.6	76.1	112.5

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 Quartiles

Release Date: November 5, 2015

#	Benchmark	Quartile 1	Quartile 2	Quartile 3	Quartile 4
17	Electric sourcing cost as a percent of managed spend	0.07%	0.11%	0.18%	0.50%
	Gas sourcing cost as a percent of managed spend	0.05%	0.08%	0.11%	0.18%
	IT/Telecom sourcing cost as a percent of managed spend	0.02%	0.04%	0.07%	0.12%
	Corporate and Shared Services sourcing cost as a percent of managed spend	0.02%	0.09%	0.12%	0.19%
	Nuclear Generation sourcing cost as a percent of managed spend	0.02%	0.04%	0.06%	0.10%
	Fossil, Hydro, & Renewable Generation sourcing cost as a percent of managed spend	0.05%	0.07%	0.10%	0.23%
	Warehousing (inventory buying) sourcing cost as a percent of managed spend	0.07%	0.07%	0.14%	0.15%
	Supplier diversity sourcing cost as a percent of managed spend	0.01%	0.02%	0.04%	0.06%
	Supply Chain operations sourcing cost as a percent of managed spend	0.05%	0.07%	0.08%	0.10%

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 Quartiles

Release Date: November 5, 2015

#	Benchmark	Quartile 1	Quartile 2	Quartile 3	Quartile 4
18	Electric sourcing cost as a percent of Electric T&D managed spend	0.17%	0.25%	0.40%	1.20%
	Gas sourcing cost as a percent of Gas T&D managed spend	0.42%	0.53%	0.69%	1.20%
	IT/Telecom sourcing cost as a percent of IT/Telecom managed spend	0.35%	0.37%	0.54%	1.20%
	Corporate and Shared Services sourcing cost as a percent of Corporate and Shared Services managed spend	0.21%	0.31%	0.98%	2.70%
	Nuclear generation sourcing cost as a percent of nuclear generation managed spend	0.44%	0.87%	1.15%	7.02%
	Fossil, Hydro, and Renewable generation sourcing costs as a percent of fossil generation managed spend	0.25%	0.39%	0.93%	1.33%

Like Size Utility Supply Chain Performance Benchmark 2015
 Prepared by CAPS Research
 Quartiles

Release Date: November 5, 2015

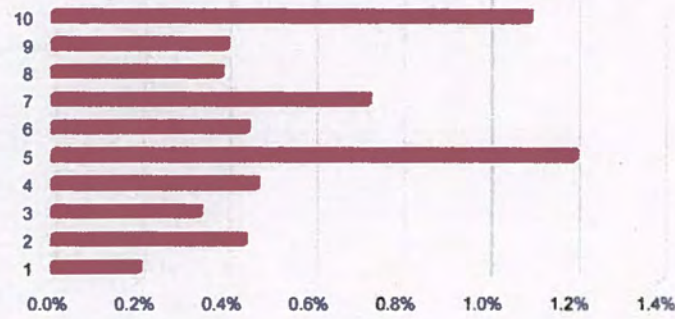
#	Benchmark	Quartile 1	Quartile 2	Quartile 3	Quartile 4
20	Early Payment Discounts as a percent of total savings	11.4%	0.7%	0.4%	0.0%
	Rebates as a percent of total savings	3.2%	0.8%	0.0%	0.0%
	Budget savings (Cost Reduction) as a percent of total savings	100.0%	35.3%	26.5%	0.0%
	Business case savings as a percent of total savings	43.0%	0.0%	0.0%	0.0%
	(RFP) savings as a percent of total savings	93.3%	74.1%	0.0%	0.0%
	Cost Avoidance/Total Cost of Ownership savings as a percent of total savings	71.5%	44.3%	14.3%	12.2%
	Other savings as a percent of total savings	10.6%	0.0%	0.0%	0.0%
21	Budget savings (Cost Reduction) as a percent of managed spend	4.1%	3.8%	1.9%	0.7%
	(RFP) savings as a percent of managed spend	8.2%	4.6%	2.7%	1.9%
	Cost Avoidance/Total Cost of Ownership savings as a percent of managed spend	5.0%	2.3%	1.0%	0.7%

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 Prepared by CAPS Research

Release Date: November 5, 2015

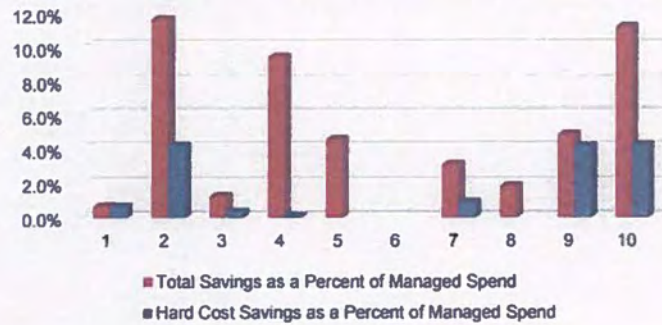
BM 1

Sourcing Cost as a Percent of Managed Spend



BM 2,3

Savings as a Percent of Managed Spend

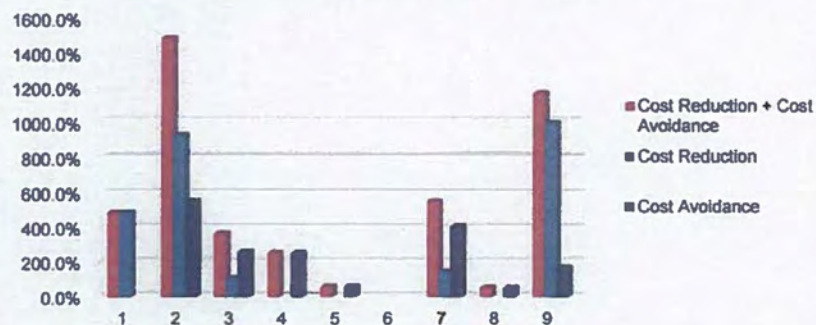


Like Size Utility Supply Chain Performance Benchmark 2015
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Release Date: November 5, 2015

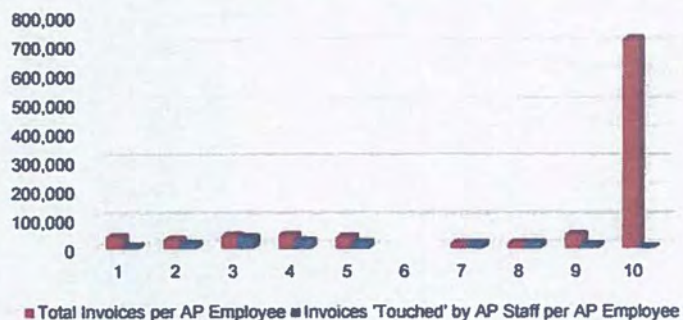
BM 4

Supply Management Return on Investment



BM 5

Invoices per AP Employee

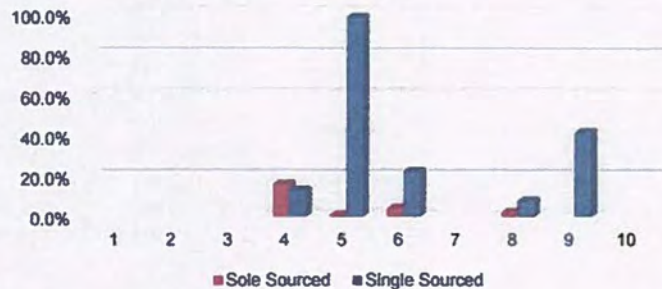


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 Prepared by CAPS Research

Release Date: November 5, 2015

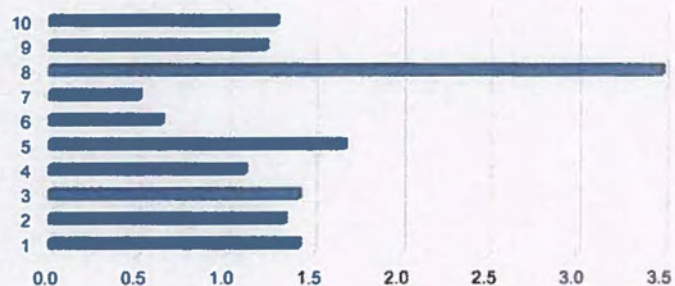
BM 6

Sole Sourced and Single Sourced Spend as a Percent of Managed Spend



BM 7

Number of Active Suppliers per \$1M Managed Spend

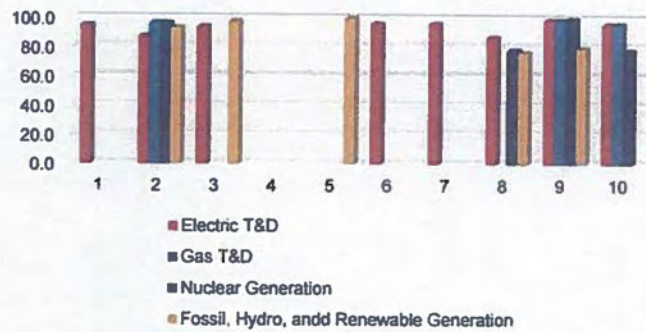


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Release Date: November 5, 2015

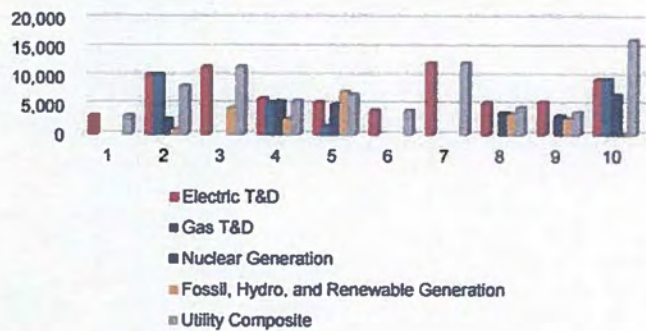
BM 8

Average Line Fill Rate



BM 9

Total Lines per Material Handler

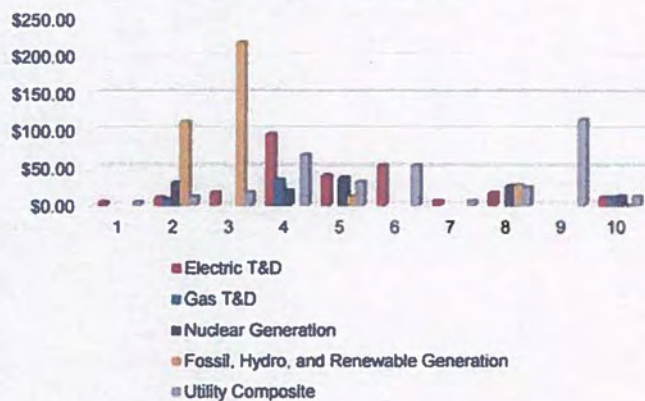


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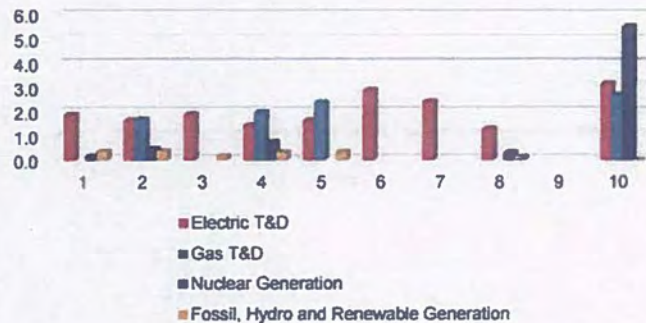
BM 10

Warehouse Cost per Line



BM 11

Inventory Turns

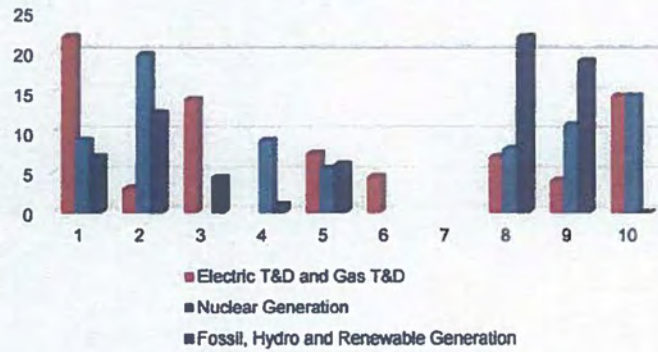


Like Size Utility Supply Chain Performance Benchmark 2015
 Prepared by CAPS Research

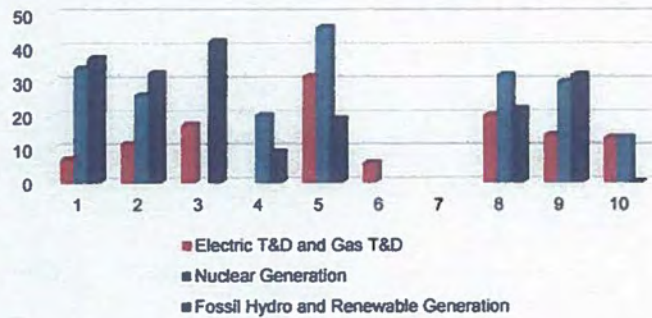
Release Date: November 5, 2015

BM 12

Percent of Returns against Lines Issued



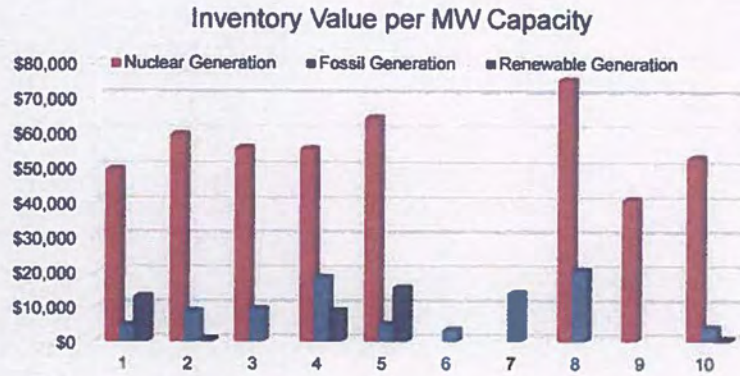
Percent of Dollars Returned against Lines Issued



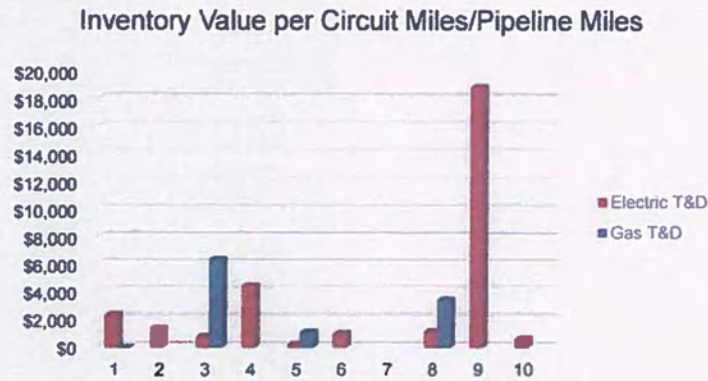
Like Size Utility Supply Chain Performance Benchmark 2015
 Prepared by CAPS Research

Release Date: November 5, 2015

BM 14a



BM 14b

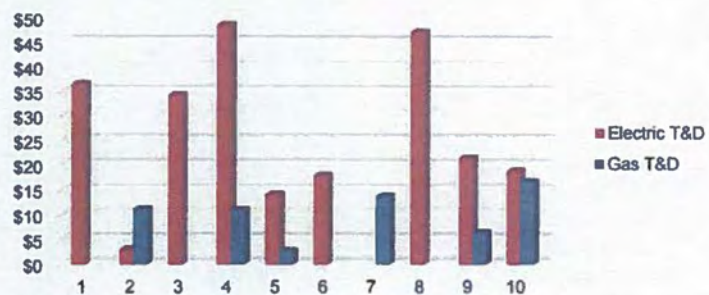


Like Size Utility Supply Chain Performance Benchmark 2015
 Prepared by CAPS Research

Release Date: November 5, 2015

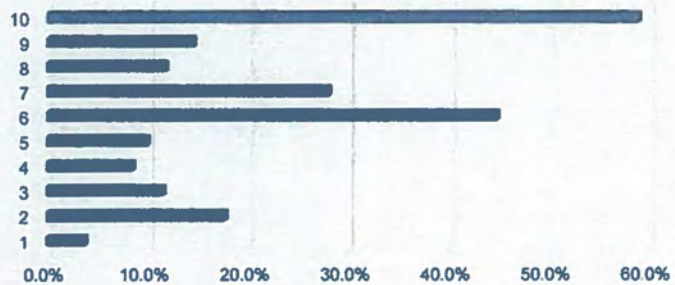
BM 14c

Inventory Value per Number of Customers Served



BM 15a

Supplier Diversity Spend as a Percent of Managed Spend

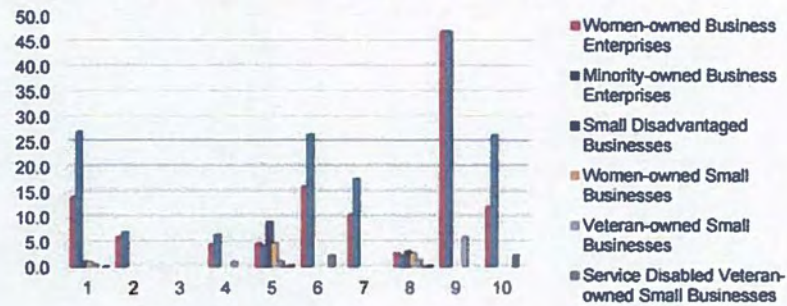


Like Size Utility Supply Chain Performance Benchmark 2015
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Release Date: November 5, 2015

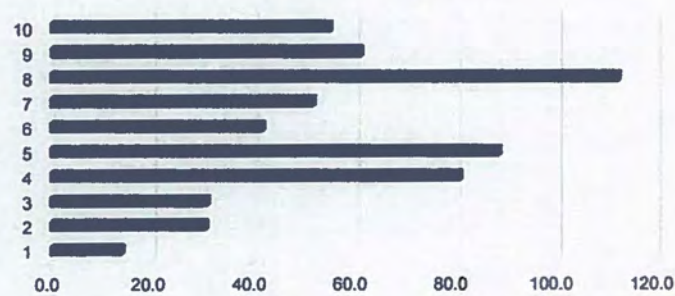
BM 15b

Percent of Managed Spend with Diversity Categories



BM 16

Supply Management Employees per \$1B Managed Spend

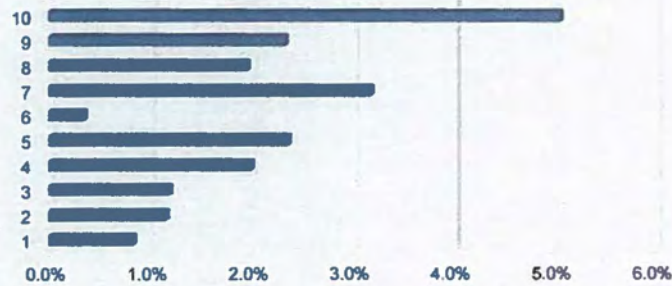


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Release Date: November 5, 2015

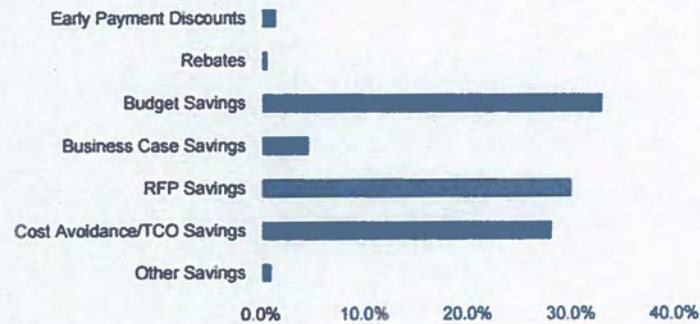
BM 19

Procurement Card Spend as a Percent of Managed Spend



BM 20

Savings as a Percent of Managed Spend

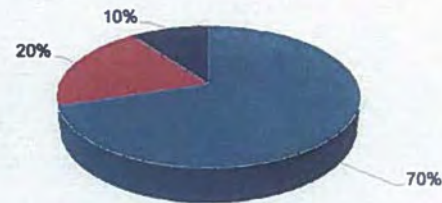


Like Size Utility Supply Chain Performance Benchmark 2015
Prepared by CAPS Research

Release Date: November 5, 2015

BM 23

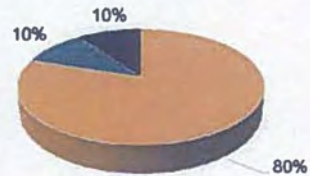
Supplier Integration Model



- Pct of organizations that use a supplier integration model
- Pct of organizations that are looking to implement a supplier integration model
- Pct of organizations that have no plans for a supplier integration model

BM 25

Contractor Safety Program



- Pct of Supply Chain Groups with a Contractor Safety Program
- Pct of Supply Chain Groups Developing/Implementing a Contractor Safety Program
- Pct of Supply Chain Groups with No Plans for a Contractor Safety Program



UTILITY PROFILE

Service Area
 197,500 square miles



- 5.3M Electric Customers
- 40,000 circuit miles of electric transmission lines
- 215,000 circuit miles of distribution lines



- Natural Gas Customers - NA

Headquartered in Columbus, Ohio, AEP is one of the largest electric utilities in the U.S., serving over 5 million customers in 11 states.

We own:

Nearly 32,000 megawatts of generating capacity
 More than 40,000-miles of electricity transmission network – the largest in the nation.
 More 765 kilovolt extra-high voltage transmission lines than all other U.S. transmission systems combined

Our major businesses include:

Regulated Utility Operations, Transmission, Power Generation, AEP Energy Partners, River Operations.

Source: <https://www.aep.com/about/>

American Electric Power

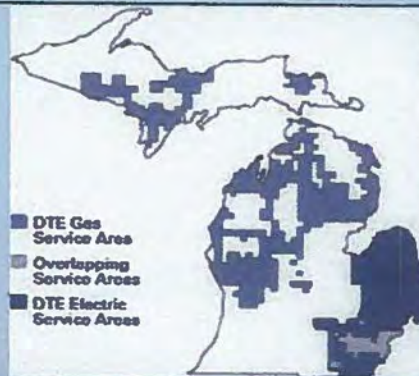


Founded	1906
Headquarter	Columbus, OH
Number of Employees	18,500
Products	Electricity
Generation Portfolio	Nuclear Coal-Fueled Natural Gas Hydro Renewable
Type	Public
Stock Symbol	AEP – NYSE
Revenue	\$17.0B (2014)
States Served	OH, KY, MI, TX, VA, TN, AR, LA, WV, IN, OK
Website	www.AEP.com



DTE Energy

UTILITY PROFILE



- 2.1 Million Electric Customers
- 46,061 circuit miles of distribution lines
- 30,339 - Overhead
- 15,722 - Underground



- 1.2M Natural Gas Customers
- 2,000 miles of gas transmission pipeline
- 19,000 miles of gas distribution pipeline

DTE Energy Co. (NYSE: DTE) is a diversified energy company involved in the development and management of energy-related businesses and services nationwide.

Electric/Gas Utilities

Our largest operating subsidiaries are DTE Electric and DTE Gas. Together, these regulated utility companies provide electric and/or gas services to more than three million residential, business and industrial customers throughout Michigan.

Non-utility Businesses

Our electric and gas utility businesses have each been in operation for over a century. We have leveraged that wealth of experience and assets to develop a number of non-utility subsidiaries which provide energy-related services to business and industry nationwide.

Source: www.2.dteenergy.com/wps/portal/dte/aboutus

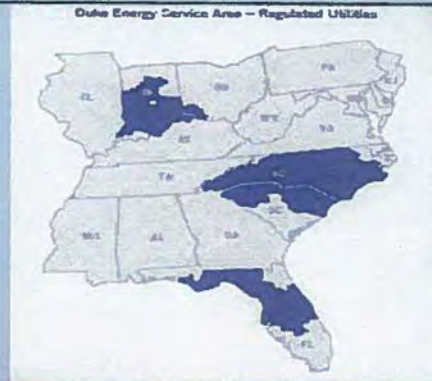
DTE Energy Co.



Founded	1903
Headquarter	Detroit, MI
Number of Employees	10,000
Products	Electricity Natural Gas
Generation Portfolio	Nuclear Hydro pumped storage Fossil-fuel Renewable
Type	Public
Stock Symbol	DTE – NYSE
Revenue	12.3B (2014)
State Served	MI
Website	www.dteenergy.com



UTILITY PROFILE



- 7.3M Electric Customers
- 32,400 circuit miles of electric transmission lines
- 262,900 circuit miles of distribution lines



- 0.5M Natural Gas Customers
- 7,200 gas mains
- 6,200 gas service lines

Duke Energy makes life better for millions of people every day by providing electric and gas services in a sustainable way – affordable, reliable and clean.

We are the largest electric power holding company in the United States, supplying and delivering energy to approximately 7.3 million U.S. customers. We have approximately 57,500 megawatts of electric generating capacity in the Carolinas, the Midwest and Florida – and natural gas distribution services in Ohio and Kentucky. Our commercial and international businesses own and operate diverse power generation assets in North America and Latin America, including a portfolio of renewable energy assets.

Headquartered in Charlotte, N.C., Duke Energy is a Fortune 250 company traded on the New York Stock Exchange under the symbol DUK.

Source: www.duke-energy.com/aboutus/

Duke Energy



Founded	1904
Headquarter	Charlotte, NC
Number of Employees	28,344
Products	Electricity Natural Gas
Generation Portfolio	Nuclear Hydro Natural gas Coal Oil
Type	Public
Stock Symbol	DUK – NYSE
Revenue	\$23.9B (2014)
States Served	NC, SC, IN, OH, KY, FL
Website	www.duke-energy.com



UTILITY PROFILE



Exelon Corporation



- 6.6M Electric Customers
- 124,000 Circuit miles of electric lines*



- 1.2M Natural Gas Customers
- 13,700 miles of gas pipeline*

* Combined total of 3 Exelon utilities

Founded	2000
Headquarter	Chicago, IL
Number of Employees	29,000
Products	Electricity Natural Gas Nuclear
Generation Portfolio	Nuclear Natural Gas Renewable
Type	Public
Stock Symbol	EXC – NYSE
Revenue	\$27.4B (2014)
States Served	PA, IL, MD
Website	www.exeloncorp.com

Energy Generation Exelon Generation is one of the largest competitive power generators in the nation, with owned generating assets totaling more than 32,000 megawatts. With strong positions in the Midwest, Mid-Atlantic, Texas and California, Exelon is the largest owner and operator of nuclear plants in the United States.

Competitive Energy Sales Constellation is Exelon's competitive retail and wholesale energy business. Constellation and its companies provide an array of innovative energy products and services to customers across the United States and in Canada. Headquartered in Baltimore, Constellation serves more than 2.5 million residential, public sector and business customers, including more than two-thirds of the Fortune 100.

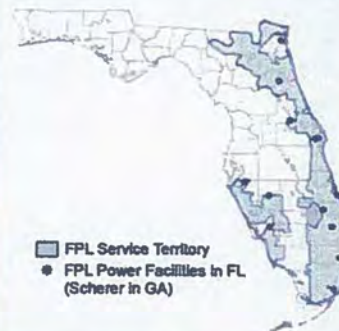
Energy Delivery Through its BGE, ComEd and PECO utility subsidiaries, Exelon is one of the largest electric and natural gas distribution companies in the nation. It delivers electricity and gas to approximately 7.8 million customers in central Maryland (BGE), northern Illinois (ComEd) and southeastern Pennsylvania (PECO).

Source: <http://www.exeloncorp.com>



FPL

UTILITY PROFILE



- 4.7M Electric Customers
- 6,800 circuit miles of electric transmission lines
- 67,600 circuit miles of distribution lines



- Natural Gas Customers - NA

Florida Power & Light Company



Founded	1925
Headquarter	Juno Beach, FL
Number of Employees	8,900
Products	Electricity
Generation Portfolio	Nuclear Natural Gas Coal Renewables
Type	Subsidiary of NextEra Energy, Inc.
Stock Symbol	NEE - NYSE
Revenue	\$11.4B (2014)
State Served	FL
Website	www.fpl.com

Florida Power & Light Company is the third-largest electric utility in the United States, serving approximately 4.7 million customer accounts across nearly half of the state of Florida. As of year-end 2013, FPL's typical 1,000-kWh residential customer bill is approximately 25 percent lower than the national average and the lowest in Florida among reporting utilities. FPL's service reliability is better than 99.98 percent, and its highly fuel-efficient power plant fleet is one of the cleanest among utilities nationwide. The company was recognized in 2014 as the most trusted U.S. electric utility by Market Strategies International, and has earned the national ServiceOne Award for outstanding customer service for an unprecedented 10 consecutive years. A leading Florida employer with approximately 8,900 employees, FPL is a subsidiary of Juno Beach, Fla.-based NextEra Energy, Inc. (NYSE: NEE).

Source: <https://www.fpl.com/about/company-profile.html>



UTILITY PROFILE



- 5.3M Electric Customers
- 18,616 circuit miles of electric transmission lines
- 141,215 circuit miles of distribution lines



- 4.3M Natural Gas Customers
- 6,438 miles of gas transmission pipeline
- 42,141 miles of gas distribution pipeline

Pacific Gas and Electric Company, incorporated in California in 1905, is one of the largest combination natural gas and electric utilities in the United States. Based in San Francisco, the company is a subsidiary of PG&E Corporation.

There are approximately 20,000+ employees who carry out Pacific Gas and Electric Company's primary business—the transmission and delivery of energy. The company provides natural gas and electric service to approximately 16 million people throughout a 70,000-square-mile service area in northern and central California.

Pacific Gas and Electric Company and other utilities in the state are regulated by the California Public Utilities Commission. The CPUC was created by the state Legislature in 1911.

Source: <http://www.pge.com/en/about/company/profile/index.page?>

Pacific Gas & Electric Co.

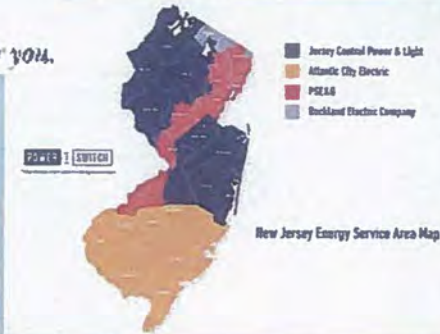


Founded	1905
Headquarter	San Francisco, CA
Number of Employees	22,581
Products	Electricity Natural Gas
Generation Portfolio	Nuclear Hydro Natural Gas Photovoltaic
Type	Public
Stock Symbol	PCG – NYSE
Revenue	17.1B (2014)
State Served	CA
Website	www.pge.com

UTILITY PROFILE



PSEG *We make things work for you.*



- 2.2M Electric Customers
- 23,810 circuit miles of transmission and distribution lines



- 1.8M Gas Customers
- 17,792 miles of gas mains

PSEG is a diversified energy company. Established in 1903, the company has long had a key role in fueling New Jersey's economy and supporting the state's quality of life.

Public Service Electric and Gas (PSE&G) is New Jersey's largest provider of electric and gas service – serving 2.2 million electric customers and 1.8 million gas customers or nearly three out of every four people in the state.

PSEG also owns and operates a diverse fleet of power plants with more than 13,000 megawatts of generating capacity located primarily in the Mid-Atlantic and Northeast regions and has solar energy facilities throughout the United States. Another member of the PSEG family of companies, PSEG Long Island, operates the electric transmission and distribution system of the Long Island Power Authority, with 1.1 million customers.

PSEG has approximately 12,700 employees, who are carrying forward a proud tradition of dedicated service over more than 100 years.

Source: <https://www.pseg.com/family/index.jsp>

Public Service Electric & Gas



Founded	1903
Headquarter	Newark, NJ
Number of Employees	12,689
Products	Electric Natural Gas
Generation Portfolio	Nuclear Coal Gas Oil-fired Renewable
Type	Public
Stock Symbol	PEG - NYSE
Revenue	\$10.86 B (2014)
State Served	NJ
Website	www.pseg.com



UTILITY PROFILE



Southern California Edison



- 5.0M Electric Customers
- 9,928 circuit miles of electric transmission lines
- 72,809 circuit miles of distribution lines



- Natural Gas Customers - NA

Founded	1886
Headquarter	Rosemead CA
Number of Employees	13,600
Products	Electricity
Generation Portfolio	Renewable
Type	Subsidiary of Edison International
Stock Symbol	EIX - NYSE
Revenue	\$13.4B (2014)
State Served	CA
Website	www.sce.com

Electricity powers our homes, our businesses, and our communities. We've delivered it to Southern and Central California for more than 125 years. As one of the nation's largest electric utilities, we're committed to keeping electricity safe, reliable, and affordable today and for the future.

We delivered more than 88 billion kWh of electricity in 2014 and powered a total of 15 million people

180 incorporated cities

15 counties

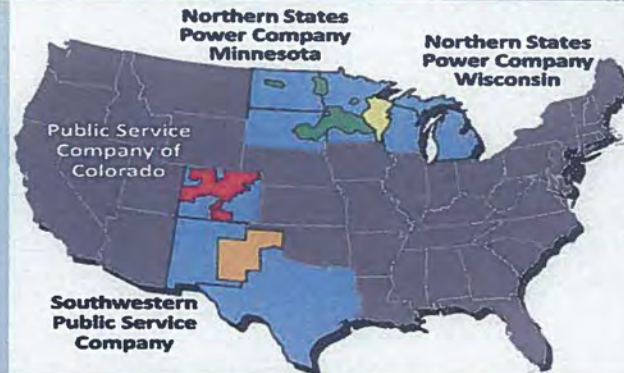
50,000 square miles of service area

5,000 large businesses

280,000 small businesses

Source: www.sce.com

UTILITY PROFILE



Xcel Energy



- 3.5M Electric Customers
- 93,100 circuit miles of electric transmission lines
- 196,889 circuit miles of distribution lines



- 2.0M Natural Gas Customers
- 2,405 miles of gas transmission pipeline
- 34,091 miles of gas distribution pipeline

Xcel Energy Inc., through its subsidiaries, engages primarily in the generation, purchase, transmission, distribution, and sale of electricity in the United States. It operates through Regulated Electric Utility, Regulated Natural Gas Utility, and All Other segments. The company generates electricity using coal, nuclear, natural gas, hydro, solar, biomass, oil and refuse, and wind energy sources. It is also involved in the purchase, transportation, distribution, and sale of natural gas. In addition, the company engages in developing and leasing natural gas pipelines, and storage and compression facilities; and investing in rental housing projects. It serves residential, commercial, and industrial customers, as well as public authorities in the portions of Colorado, Michigan, Minnesota, New Mexico, North Dakota, South Dakota, Texas, and Wisconsin. Xcel Energy Inc. was founded in 1909 and is based in Minneapolis, Minnesota.

Source: [Yahoo Finance](#)

Founded	2000
Headquarter	Minneapolis, MN
Number of Employees	12,469
Products	Electricity Natural Gas
Generation Portfolio	Nuclear Hydro Natural Gas Coal Wind Solar
Type	Public
Stock Symbol	XEL – NYSE
Revenue	\$11.7B (2014)
States Served	MN, MI, WI, ND, SD, TX, NM, CO
Website	www.xcelenergy.com



2016 Duke Energy Market Study

2016 Market Study Evidence Submission Form

Applicability: Duke Energy Business Services (DEBS), Duke Energy Carolinas (DEC), Duke Energy Progress (DEP)

Originator: Corporate Compliance, Ethics and Compliance, James Hollingsworth

Approval: DEC/DEP Rates and Regulatory

Due Date: 10/31/2016

Applicable Regulatory Condition:

Docket No. E-2, Sub 998

Docket No. E-7, Sub 986

5.2 Procurement or Provision of Goods and Services by DEC or DEP to or from Affiliates or Nonpublic Utility Operations.

*Please populate and submit this form along with all evidence documentation to **James Hollingsworth** James.Hollingsworth@duke-energy.com by 10/31/2016.*

- 1) Use the drop down list below to select the DEBS function for which you are attesting:

Nuclear Development

If attesting only for a specific area within a function (i.e. CIS IT Support), please list below:

- NA

- 2) Provide a description of the function and the service offerings provided to DEC/DEP by the function:

Nuclear Development (ND) is responsible for the licensing and permitting activities for twin AP1000 reactors for both the proposed Levy Nuclear Station, located in Levy County, Florida; and, for the proposed Lee Nuclear Station, located in Gaffney County, South Carolina. Licensing activities are centered on obtaining 10 CFR Part 52 Construction and Operating Licenses (COLs) from the Nuclear Regulatory Commission for the proposed reactors. Major environmental permits include the National Pollutant Discharge Elimination System (NPDES) permits, Water Quality Certification permits; and, US Army Corps of Engineer permits for performing construction activities in waters of the US. ND is also leading development of the Oconee Subsequent License Renewal application.



2016 Duke Energy Market Study

- 3) **Provide a short narrative explaining how the service function performs a cost-benefit analysis:**

Because of the nature of developing nuclear, this function would not be outsourced.

- 4) **Provide a listing of all evidence document names being submitted with this form as proof of performing a market study within the last 4 years (2012-2016) (i.e. Benchmark Analysis_2015.ppt):**

- See the attached documentation-confidential

- 5) **Provide the current employee to contingent worker ratio for the function (i.e. total count, FTE's and CW's and %):**

Nuclear Development hires SME's from the nuclear industry as needed for licensing, engineering development, etc.

- Duke FTE : 28
- Contractor / Sup Staffing : 10
- Ratio: There are 2.8 FTE's to every 1 Contractor.

- 6) **Use the selectors below to indicate where the Service Function should be plotted on the Feasibility Matrix:**

- a) ***Impact to the Regulated Utility (How crucial is it to utility operations and compliance?)***

1-Low to 10-High: 10

- b) ***Relationship to Core Competency (How unique is the service; do many firms offer similar services on the open market; is it fairly specialized?)***

1-Low to 10-High: 9

Strategic in nature

- 7) **Provide the appropriate point of contact for the Service Function (Who will be able to interview with an auditor and attest to the market study process for the Service Function described in this document):**

Responder Name: NA



2016 Duke Energy Market Study

Job Title:

Organization/Department:

Telephone Number:

Email Address:

Date Form was Completed:

Return completed form and all evidence documentation to James Hollingsworth at James.Hollingsworth@duke-energy.com by 10/31/2016

Docket No. E-7, Sub 986D

2016 Duke Energy Market Study

Nuclear Development Submission Form

Attachment Filed under Seal



2016 Duke Energy Market Study

2016 Market Study Evidence Submission Form

Applicability: Duke Energy Business Services (DEBS), Duke Energy Carolinas (DEC), Duke Energy Progress (DEP)

Originator: Corporate Compliance, Ethics and Compliance, James Hollingsworth

Approval: DEC/DEP Rates and Regulatory

Due Date: 10/31/2016

Applicable Regulatory Condition:

Docket No. E-2, Sub 998

Docket No. E-7, Sub 986

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*Please populate and submit this form along with all evidence documentation to **James Hollingsworth** James.Hollingsworth@duke-energy.com by 10/31/2016.*

- 1) **Use the drop down list below to select the DEBS function for which you are attesting:**

Planning

If attesting only for a specific area within a function (i.e. CIS IT Support), please list below:

- Corporate Strategy staff – within Doug Esamann's Energy Solutions & Midwest/Florida Regions organization
- Strategy Execution Office – Donna Council and staff

- 2) **Provide a description of the function and the service offerings provided to DEC/DEP by the function:**

Facilitation of strategic planning and operating plan preparation; operational integration of the Regulated Utility strategy; monitoring of industry trends; and evaluation of business opportunities.

- 3) **Provide a short narrative explaining how the service function performs a cost-benefit analysis:**

The functions provided by DEBS Planning staff are strategic in nature to the organization. Duke Energy management has determined that outsourcing functional support for critical Planning services is not judged appropriate due to the proprietary and confidential nature of strategic planning, detailed and



2016 Duke Energy Market Study

historical knowledge of the business, and internal knowledge of complex regulatory issues. Moreover, Duke Energy utility customers ultimately benefit from dedicated, internal strategic planning resources. However, on an 'as needed' basis, the Company engages external consultants and subject matter experts as appropriate to supplement our internal staff capabilities. The decision to engage an outside provider is based on specific skill requirements and experience of individual consultants.

- 4) **Provide a listing of all evidence document names being submitted with this form as proof of performing a market study within the last 4 years (2012-2016) (i.e. Benchmark Analysis_2015.ppt):**

- NA

- 5) **Provide the current employee to contingent worker ratio for the function (i.e. total count, FTE's and CW's and %):**

- 7 FTE; 0 CW at present

- 6) **Use the selectors below to indicate where the Service Function should be plotted on the Feasibility Matrix:**

- a) ***Impact to the Regulated Utility (How crucial is it to utility operations and compliance?)***

Planning is very critical to effective long term success, but has less impact on real-time operations.

1-Low to 10-High: 7

- b) ***Relationship to Core Competency (How unique is the service; do many firms offer similar services on the open market; is it fairly specialized?)***

Utility strategy and planning is a core competency that is highly specialized and based on company/jurisdiction.

1-Low to 10-High: 10

- 7) **Provide the appropriate point of contact for the Service Function (Who will be able to interview with an auditor and attest to the market study process for the Service Function described in this document):**

Responder Name: Andrew James



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Job Title: Strategic Planning Manager
Organization/Department: Corporate & Regulatory Strategy
Telephone Number: 704-382-4797
Email Address: andrew.james@duke-energy.com
Date Form was Completed: 10/31/2016

Return completed form and all evidence documentation to James Hollingsworth at James.Hollingsworth@duke-energy.com by 10/31/2016



2016 Duke Energy Market Study

2016 Market Study Evidence Submission Form

Applicability: Duke Energy Business Services (DEBS), Duke Energy Carolinas (DEC), Duke Energy Progress (DEP)

Originator: State Regulatory Compliance, Ethics and Compliance

Approval: DEC/DEP Rates and Regulatory

Due Date: 10/31/2016

Applicable Regulatory Condition:

Docket No. E-2, Sub 998

Docket No. E-7, Sub 986

5.2 Procurement or Provision of Goods and Services by DEC or DEP to or from Affiliates or Nonpublic Utility Operations.

Please populate and submit this form along with all evidence documentation to Bernadette Raftery (Bernadette.Raftery@duke-energy.com) 704-382-0497 by 10/31/16:

- 1) Use the drop down list below to select the DEBS function for which you are attesting:

Power Engineering and Construction

If attesting only for a specific area within a function (i.e. CIS IT Support), please list below:

- 2) Provide a description of the function and the service offerings provided to DEC/DEP by the function:

Project Management and Construction (PMC) develops and executes major projects (typically new generation plants or major plant retrofits) on behalf of DEC/DEP that are part of the DEC/DEP operated generation assets. Currently 6 DEC/DEP projects in construction total approximately \$2 billion in total project capex.

- 3) Provide a short narrative explaining how the service function performs a cost-benefit analysis:

This service cannot be outsourced; accordingly, a cost-benefit analysis is not required. Only 5-10% of the cost of these major projects is for PMC services. PMC competitively bids out to third parties 90-95% of the major project costs that includes supply of major equipment, engineering, procurement and construction



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(EPC) services. PMC services are required to develop, permit, and contract these major projects for DEC/DEP and provide project control and oversight to ensure DEC/DEP standards for safety, environment, quality, cost and schedule are met. This is a critical strategic service that requires experience and expertise that cannot be effectively outsourced.

4) Provide a listing of all evidence document names being submitted with this form as proof of performing a market study within the last 4 years (2012-2016) (i.e. Benchmark Analysis_2015.ppt):

- NA

5) Provide the current employee to contingent worker ratio for the function (i.e. total count, FTE's and CW's and %):

- 84 Employees and 88 Contingent Workers (mostly site construction oversight)

6) Use the selectors below to indicate where the Service Function should be plotted on the Feasibility Matrix:

a) *Impact to the Regulated Utility (How crucial is it to utility operations and compliance?)*

1-Low to 10-High: 10

b) *Relationship to Core Competency (How unique is the service; do many firms offer similar services on the open market; is it fairly specialized?)*

PMC function is highly specialized.

1-Low to 10-High: 10

7) Provide the appropriate point of contact for the Service Function (*Who will be able to interview with an auditor and attest to the market study process for the Service Function described in this document*):

Responder Name:	Mark Landseidel
Job Title:	GM Project Development
Organization/Department:	Project Management and Construction



2016 Duke Energy Market Study

Telephone Number: 704-382-4759
Email Address: mark.landseidel@duke-energy.com
Date Form was Completed: 11/3/2016

*Return completed form and all evidence documentation to Bernadette Raftery
(Bernadette.raftery@duke-energy.com) by 10/31/16.*



2016 Duke Energy Market Study

2016 Market Study Evidence Submission Form

Applicability: Duke Energy Business Services (DEBS), Duke Energy Carolinas (DEC), Duke Energy Progress (DEP)

Originator: State Regulatory Compliance, Ethics and Compliance

Approval: DEC/DEP Rates and Regulatory

Due Date: 10/31/2016

Applicable Regulatory Condition:

Docket No. E-2, Sub 998

Docket No. E-7, Sub 986

5.2 Procurement or Provision of Goods and Services by DEC or DEP to or from Affiliates or Nonpublic Utility Operations.

Please populate and submit this form along with all evidence documentation to Bernadette Raftery (Bernadette.Raftery@duke-energy.com) 704-382-0497 by 10/31/16:

- 1) Use the drop down list below to select the DEBS function for which you are attesting:

Power Planning and Operations

If attesting only for a specific area within a function (i.e. CIS IT Support), please list below:

- Strategic Programs (aka Program Development)
- Bus Svcs Workforce Strategy
- Engineering Services
- Doc Con/Configuration Mgmt
- Technical Apps
- NERC Compliance
- Generation & Regulatory Strategy

- 2) Provide a description of the function and the service offerings provided to DEC/DEP by the function:

The Central Services organization manages the functions noted above for the Fossil Hydro Operations (FHO) organization. Central Services provides the technical expertise necessary to achieve Duke Energy's mission of providing safe, compliant, and increasingly clean energy reliably 24/7.



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From a functional perspective, Central Services is responsible for establishing strategies for meeting regulatory obligations and following with the development and management of the programs necessary to comply and realize our goals. Additionally, this organization also provides leadership and oversight of long term strategic and reliability initiatives and maintains the design basis for the operating fleet.

Additionally, Central Services provides application consultation, training, functional fix/break support, business testing, change management, governance, enhancements, upgrades, business case development, vendor and information technology consultation/liaison, and assistance/questions for centralized applications within Fossil/Hydro.

3) Provide a short narrative explaining how the service function performs a cost-benefit analysis:

Given that Central Services serves in a strategic and oversight role, these services are generally not available from an outside entity. It is not reasonable to rely on an outside entity for overseeing these functions as Central Services is essentially responsible for providing sound stewardship of FHO's resources and assets.

4) Provide a listing of all evidence document names being submitted with this form as proof of performing a market study within the last 4 years (2012-2016) (i.e. Benchmark Analysis_2015.ppt):

- N/A

5) Provide the current employee to contingent worker ratio for the function (i.e. total count, FTE's and CW's and %):

- Count of FTEs / Count of CWs = 158% - It should be noted that this percentage varies depending upon what is being worked on. For example, we're finishing up a block of work to meet NERC-CIP compliance requirements. With the completion of this work, the percentage provided herein will change.

6) Use the selectors below to indicate where the Service Function should be plotted on the Feasibility Matrix:

a) Impact to the Regulated Utility (How crucial is it to utility operations and compliance?)

1-Low to 10-High: 10

b) Relationship to Core Competency (How unique is the service; do



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many firms offer similar services on the open market; is it fairly specialized?)

1-Low to 10-High: 10

7) Provide the appropriate point of contact for the Service Function (*Who will be able to interview with an auditor and attest to the market study process for the Service Function described in this document*):

Responder Name:	Joseph Miller, Jr.
Job Title:	VP Central Services/FHO
Organization/Department:	Fossil Hydro Operations
Telephone Number:	(704)382-8513
Email Address:	Joseph.Miller2@duke-energy.com
Date Form was Completed:	10/31/2016

Return completed form and all evidence documentation to Bernadette Raftery (Bernadette.raftery@duke-energy.com) by 10/31/16.



2016 Duke Energy Market Study

2016 Market Study Evidence Submission Form

Applicability: Duke Energy Business Services (DEBS), Duke Energy Carolinas (DEC), Duke Energy Progress (DEP)

Originator: Corporate Compliance, James Hollingsworth
(James.Hollingsworth@duke-energy.com)

Approval: DEC/DEP Rates and Regulatory

Due Date: 10/31/2016

Applicable Regulatory Condition:

Docket No. E-2, Sub 998

Docket No. E-7, Sub 986

5.2 Procurement or Provision of Goods and Services by DEC or DEP to or from Affiliates or Nonpublic Utility Operations.

Please populate and submit this form along with all evidence documentation to James Hollingsworth (James.Hollingsworth@duke-energy.com) by 10/31/16:

- 1) Use the drop down list below to select the DEBS function for which you are attesting:

Public Affairs

Corporate Communications

If attesting only for a specific area within a function (i.e. CIS IT Support), please list below:

- External Affairs and Strategic Planning

- 2) Provide a description of the function and the service offerings provided to DEC/DEP by the function:

Preparation and dissemination of information to employees, customers, government official, communities, and the media; provision of associated communications materials. Overall responsibility for the corporation's emergency planning communications, including facilities and reputational risks and communication planning and implementation as it relates to major storms and other operational and reputational crises. Additionally responsible for strategic planning and execution for the Duke Energy Foundation, community affairs, environmental affairs, stakeholder engagement, governmental relations and sustainability.



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- 3) Provide a short narrative explaining how the service function performs a cost-benefit analysis:

Corporate Communications has participated in benchmark studies with industry peers and other professional organizations.

- 4) Provide a listing of all evidence document names being submitted with this form as proof of performing a market study within the last 4 years (2012-2016) (i.e. Benchmark Analysis_2015.ppt):

- No significant studies performed in the past 4 years.

- 5) Provide the current employee to contingent worker ratio for the function (i.e. total count, FTE's and CW's and %):

- 166 FTE. 50 CW ---- 23%

- 6) Use the selectors below to indicate where the Service Function should be plotted on the Feasibility Matrix:

- a) *Impact to the Regulated Utility (How crucial is it to utility operations and compliance?)*

1-Low to 10-High: 10

Corporate Communications services impact to the organization is high. The organization fills many regulatory and public safety roles.

- b) *Relationship to Core Competency (How unique is the service; do many firms offer similar services on the open market; is it fairly specialized?)*

Most functions are highly specialized and require deep organizational knowledge not attainable by outside contractors. In addition, certain roles are highly strategic or sensitive and cannot be outsourced.

1-Low to 10-High: 9

- 7) Provide the appropriate point of contact for the Service Function (*Who will be able to interview with an auditor and attest to the market study process for the Service Function described in this document*):

Responder Name: Richard Miller
Alison Ford



2016 Duke Energy Market Study

Job Title: Operations Manager for Corporate Communications
Organization/Department: Corporate Communications
Telephone Number: 704.382.8871
Email Address: Richard.Miller@duke-energy.com
alison.ford@duke-energy.com
Date Form was Completed: 10/28/2016

***Return completed form and all evidence documentation to James Hollingsworth
(James.Hollingsworth@duke-energy.com) by 10/31/16.***



2016 Duke Energy Market Study

2016 Market Study Evidence Submission Form

Applicability: Duke Energy Business Services (DEBS), Duke Energy Carolinas (DEC), Duke Energy Progress (DEP)

Originator: Corporate Compliance, James Hollingsworth
(James.Hollingsworth@duke-energy.com) **Approval:** DEC/DEP Rates and Regulatory

Due Date: 10/31/2016

Applicable Regulatory Condition:

Docket No. E-2, Sub 998
Docket No. E-7, Sub 986

5.2 Procurement or Provision of Goods and Services by DEC or DEP to or from Affiliates or Nonpublic Utility Operations.

Please populate and submit this form along with all evidence documentation to James Hollingsworth (James.Hollingsworth@duke-energy.com) by 10/31/16:

- 1) Use the drop down list below to select the DEBS function for which you are attesting:

Rate Design and Analysis

If attesting only for a specific area within a function (i.e. CIS IT Support), please list below:

- 2) Provide a description of the function and the service offerings provided to DEC/DEP by the function:

Rate Design and Analysis is responsible for the development, analysis, and administration of all regulated pricing and rate design. The group is responsible for developing, negotiating, seeking approval of, and implementing pricing, rate tariffs, and contracts that recover the proper level of revenue, ensure an adequate return to investors, and respond to competitive pressures. The group collaborates with and supports the State leads in Rates and Regulatory Strategy, and the State Presidents. The group is also responsible for developing and representing the company's position on pricing, rates, and contract issues before customers, customer group representatives, trade organizations, and regulators; negotiating prices and related issues with customers, consultants, and regulators; and developing and successfully concluding required filings with regulatory commissions. The group studies and maintains rate, revenue, load



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and customer data to assess the effectiveness of current tariff schedules and rules; develops proposals to change the organization's existing rates and rules to accommodate the future, strategic initiatives of the company.

- 3) **Provide a short narrative explaining how the service function performs a cost-benefit analysis:**
 - Rate design analysis does not routinely perform a cost-benefit analysis relative to its role. Expertise is highly specific, and an extensive knowledge base of company and regulatory history / processes is necessary to properly represent the company. Outside consultants are used rarely in special cases. In such cases, the cost of outside expertise usually is at multiples of internal employees.
- 4) **Provide a listing of all evidence document names being submitted with this form as proof of performing a market study within the last 4 years (2012-2016) (i.e. Benchmark Analysis_2015.ppt):**
 - N/A
- 5) **Provide the current employee to contingent worker ratio for the function (i.e. total count, FTE's and CW's and %):**
 - Total Count 18, CW's 1, or 94%
- 6) **Use the selectors below to indicate where the Service Function should be plotted on the Feasibility Matrix:**
 - a) ***Impact to the Regulated Utility (How crucial is it to utility operations and compliance?)***

1-Low to 10-High: 8
 - b) ***Relationship to Core Competency (How unique is the service; do many firms offer similar services on the open market; is it fairly specialized?)***

1-Low to 10-High: 8
- 7) **Provide the appropriate point of contact for the Service Function (*Who will be able to interview with an auditor and attest to the market study process for the Service Function described in this document*):**

Responder Name:

Jeffrey R. Bailey



2016 Duke Energy Market Study

Job Title: Director, Rate Design and Analysis
Organization/Department: Customer Solutions / Rate Design and Analysis
Telephone Number: 317-838-2467
Email Address: jeff.bailey@duke-energy.com
Date Form was Completed: 10/28/2016

***Return completed form and all evidence documentation to James Hollingsworth
(James.Hollingsworth@duke-energy.com) by 10/31/16.***



2016 Duke Energy Market Study

2016 Market Study Evidence Submission Form

Applicability: Duke Energy Business Services (DEBS), Duke Energy Carolinas (DEC), Duke Energy Progress (DEP)

Originator: State Regulatory Compliance, Ethics and Compliance, Lindsey Adams and Marcos Roberson

Approval: DEC/DEP Rates and Regulatory

Due Date: 10/31/2016

Applicable Regulatory Condition:

Docket No. E-2, Sub 998

Docket No. E-7, Sub 986

5.2 Procurement or Provision of Goods and Services by DEC or DEP to or from Affiliates or Nonpublic Utility Operations.

Please populate and submit this form along with all evidence documentation to James Hollingsworth (James.Hollingsworth@duke-energy.com) by 10/31/16:

- 1) Use the drop down list below to select the DEBS function for which you are attesting:

Rights of Way

If attesting only for a specific area within a function (i.e. CIS IT Support), please list below:

- NA

- 2) Provide a description of the function and the service offerings provided to DEC/DEP by the function:

Land Services provides fee and non-fee land right support for regulated and non-regulated business units for placement of facilities to support pipes, wires, and renewable business. Including deeds, easements, licenses, leases, LIDAR survey, route survey, dam deformation support, ALTA survey, and research and indexing of land rights.

- 3) Provide a short narrative explaining how the service function performs a cost-benefit analysis:

Land Services uses industry utility peer review for benchmarking data.



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Professional organizations like Southeaster Electric Exchange, International Right of Way Association, and Midwest Utility Real Estate Manager Meetings meet once a year to review organizational structure, use of metrics, and best practice in the utility industry. Land Services solicits quotes from land acquisition companies, as well as survey vendors to benchmark internal costs with contractors.

- 4) **Provide a listing of all evidence document names being submitted with this form as proof of performing a market study within the last 4 years (2012-2016) (i.e. Benchmark Analysis_2015.ppt):**

Please see reference above.

- 5) **Provide the current employee to contingent worker ratio for the function (i.e. total count, FTE's and CW's and %):**

- 19 FTE – 3 CW – 14% These numbers are for transmission right of way personnel for acquisition that would involve compensation. Additional turnkey staff would be used on large projects and others are used to support this work.

- 6) **Use the selectors below to indicate where the Service Function should be plotted on the Feasibility Matrix:**

- a) ***Impact to the Regulated Utility (How crucial is it to utility operations and compliance?)***

1-Low to 10-High: 9

- b) ***Relationship to Core Competency (How unique is the service; do many firms offer similar services on the open market; is it fairly specialized?)***

Land Services is specialized and highly sought after for pipeline work making it difficult to find individuals with strong skillsets in the electric utility industry.

1-Low to 10-High: 7

- 7) **Provide the appropriate point of contact for the Service Function (Who will be able to interview with an auditor and attest to the market study process for the Service Function described in this document):**

Responder Name:



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Kristina Breeding

Job Title: Director, Land
Services

Organization/Department:
Real Estate

Telephone Number:

317-838-1669

Email Address:

Kristina.breeding@duke-
energy.com

Date Form was
Completed: 10/24/16

***Return completed form and all evidence documentation to James Hollingsworth
(James.Hollingsworth@duke-energy.com) by 10/31/16.***



2016 Duke Energy Market Study

2016 Market Study Evidence Submission Form

Applicability: Duke Energy Business Services (DEBS), Duke Energy Carolinas (DEC), Duke Energy Progress (DEP)

Originator: State Regulatory Compliance, Ethics and Compliance

Approval: DEC/DEP Rates and Regulatory

Due Date: 10/31/2016

Applicable Regulatory Condition:

Docket No. E-2, Sub 998

Docket No. E-7, Sub 986

5.2 Procurement or Provision of Goods and Services by DEC or DEP to or from Affiliates or Nonpublic Utility Operations.

*Please populate and submit this form along with all evidence documentation to **Bernadette Raftery** (Bernadette.Raftery@duke-energy.com) 704-382-0497 by 10/31/16.*

- 1) Use the drop down list below to select the DEBS function for which you are attesting:

Supply Chain

If attesting only for a specific area within a function (i.e. CIS IT Support), please list below:

- NA

- 2) Provide a description of the function and the service offerings provided to DEC/DEP by the function:

Supply Chain provides essential services and measurable value for Duke Energy Business Units and Duke Energy Corporation's affiliates through a highly skilled and engaged team focused on strategically sourcing value-based contracts, excellence in materials management, warehousing and logistics, and efficient commercial processes. The organization is aligned with operational groups of Transmission and Distribution ("T&D"), Generation, Gas Operations, Strategic Projects, and Customer / Enterprise. The Supply Chain organization provides services for:

- procurement of goods and services;



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- category management of large specialized segments of spend, which includes strategic sourcing, supplier engagement, and contract management;
- warehouse operations of distribution centers, operation centers, and plant storerooms;
- Inventory management;
- Accounts Payable; and
- Supplier engagement and diversity

3) Provide a short narrative explaining how the service function performs a cost-benefit analysis:

The supply chain organization routinely performs extensive benchmarking on our operating costs and value generated. Annual benchmarking initiatives include:

- Participation in Utility Purchasing Management Group (UPMG) Supply Chain Metrics Benchmarking Study. This study typically includes 25 or more large electric utility companies. Metrics that are used for comparison include: purchasing budget as a percent of total purchasing spend; total purchasing employees as a percent of total company employees; total purchasing spend per purchasing employee; cost of supply chain services as a percent of total revenue; and total savings as a percent of purchasing spend.
- Participation in Like Sized Utility Benchmarking study. This study includes 10-12 similarly sized Investor Owned Electric and Gas Utilities. Participants include Exelon, Pacific Gas and Electric; NextEra, ConEdison, SoCal Edison, among others. Metrics that are used for comparison include: Sourcing costs as a percent of managed spend; supply management employee per \$1B in managed spend; and sourcing cost as a percent of managed spend by business unit.
- Participation in CAPS Research benchmarks. CAPS (Center for Advance Procurement Study) is affiliated with the Institute of Supply Management (ISM) and Arizona State University. CAPS conducts a series of benchmarking studies that Duke Energy participates in. These include both industry specific studies and cross industry studies. Metrics that are used for comparison include: Supply management employees as a percent of total organization employees; percent of supply management employees by function; Supply management operating expense as a percent of total spend; supply management operating expense per supply management employee; as well as many other operational metrics.

In addition, we periodically engage consulting firms to conduct assessments of our operating model and cost efficiencies.

4) Provide a listing of all evidence document names being submitted with this form as proof of performing a market study within the last 4 years (2012-2016) (i.e. Benchmark Analysis_2015.ppt):



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- Please see the three studies provided for the Meters organization, listed again for your convenience:
 - CAPS 2016 Survey Comparative_DukeEnergy.pdf - partially confidential
 - Like Size Utility 2015 Metric Report 2015_1109.pdf - partially confidential
 - UPMG Benchmarking Report 2016 Final.pdf - confidential

5) Provide the current employee to contingent worker ratio for the function (i.e. total count, FTE's and CW's and %):

- Duke Energy's Supply Chain organization total head count as of September 2016 is 952. This includes 874 full time employees and 78 contingent workers. Our employee to contingent worker ratio is 8%.

6) Use the selectors below to indicate where the Service Function should be plotted on the Feasibility Matrix:

a) *Impact to the Regulated Utility (How crucial is it to utility operations and compliance?)*

1-Low to 10-High: 10

b) *Relationship to Core Competency (How unique is the service; do many firms offer similar services on the open market; is it fairly specialized?)*

Supply Chain is core to Duke Energy's utility operations. Supply Chain is responsible for all of the procurement, sourcing, materials management and warehouse operations for all goods and services used in the utility affiliates', including DEC's and DEP's Generation, Transmission, and Distribution of electricity and gas. The organization has specialized skills in the commodities that it both sources and manages. Third party firms that offer outsourced services are typically limited to indirect categories such as office supplies, IT hardware and services, and high volume maintenance, repair and operations (MRO) supplies (such as safety, janitorial, fittings, and tools). Supply Chain leverages an integrated supply program; third party supplier to manage our MRO supplies and high volume electrical materials. For all other categories, it has determined that it requires highly specialized capabilities that are not available externally to manage the spend and it aligns with our core capabilities.

1-Low to 10-High:

10

7) Provide the appropriate point of contact for the Service Function (Who will be able to interview with an auditor and attest to the market study process for the Service Function described in this document):



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Responder Name: Ian McCulloch

Job Title: Managing Director Supply Chain Strategy and Operations

Organization/Department: Supply Chain

Telephone Number: 704-382-4844

Email Address: ian.mcculloch@duke-energy.com

Date Form was Completed: October 21, 2016

***Return completed form and all evidence documentation to Bernadette Raftery
(Bernadette.raftery@duke-energy.com) by 10/31/16.***



2016 Duke Energy Market Study

2016 Market Study Evidence Submission Form

Applicability: Duke Energy Business Services (DEBS), Duke Energy Carolinas (DEC), Duke Energy Progress (DEP)

Originator: Corporate Compliance, James Hollingsworth

(James.Hollingsworth@duke-energy.com) **Approval:** DEC/DEP Rates and Regulatory

Due Date: 10/31/2016

Applicable Regulatory Condition:

Docket No. E-2, Sub 998

Docket No. E-7, Sub 986

5.2 Procurement or Provision of Goods and Services by DEC or DEP to or from Affiliates or Nonpublic Utility Operations.

Please populate and submit this form along with all evidence documentation to James Hollingsworth (James.Hollingsworth@duke-energy.com) by 10/31/16:

- 1) Use the drop down list below to select the DEBS function for which you are attesting:

Transportation

If attesting only for a specific area within a function (i.e. CIS IT Support), please list below:

- This document covers all areas in Fleet Services.

- 2) Provide a description of the function and the service offerings provided to DEC/DEP by the function:

Fleet Services provides operational and strategic leadership for all transportation and mobile equipment at Duke Energy. The scope of this function includes over 13,400 vehicles and pieces of equipment for all of Duke Energy. Of that number, over 11,000 are licensed, on-highway units with approximately 5,700 of them located in the DEC/DEP territory. Fleet Services scope includes the following:

- Maintenance and repair services
- Acquisition, financing, and disposal
- Corporate fleet policies



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- Parts and contract management
- Fuel card programs
- Licensing and registration
- Compliance and sustainability strategies

These services are provided through a centralized organization with local representation and support at each jurisdiction. Fleet Services has a centralized general operations staff which provides governance and strategic direction on acquisitions, standards, contracts and fleet policies. This ensures a consistent strategic direction across all jurisdictions, facilitates implementation of best practices, and allows Duke Energy to achieve efficiencies through standardization and economies of scale. Maintenance and repair services are provided through an operations organization that is regionally based to provide the field presence necessary to support utility operations. Actual services are provided through a combination of local garages and outsource providers based on business needs and value.

Fleet Services operations team focuses primarily on transportation and specialized equipment that is core to utility operations. Support for standard equipment and repair activities that are not cost effective to provide in-house are outsourced and centrally managed to ensure it is leveraging economies of scale. Examples of functions and work that are currently outsourced include the following: body work, glass replacement, transmission re-builds and repairs, hydraulic cylinder repairs, most tire work as well as some heavy construction and light-duty vehicles repairs.

Duke Energy Fleet Services is always looking for opportunities where outsourcing provides value based on cost and criticality to utility operations. Fleet Services' in-house resources are primarily focused on utility buckets, derricks, transportation and other equipment that is critical to support the grid and timely restoration efforts. By having in-house resources to support utility equipment, it can provide the specialized support required during storm restoration and reduce lead time associated with maintenance and repair services for buckets and derricks. This is accomplished by having multi-skilled resources who are qualified and trained to work on both the chassis and the aerial device portions of buckets and derricks. Most outsource providers work on one or the other, not on both. By having these resources aligned with utility operations, Fleet Services can make adjustments to maintenance practices in order to minimize downtime and support safety practices in the most effective and efficient manner. This also allows Duke Energy to effectively incorporate best practices and lessons learned that are specific to utility operations. The Duke Energy Fleet Services model is consistent with larger utilities across the United States.

Duke Energy Fleet Services has a total of 340 employees who support the enterprise across all jurisdictions spread across 6 states. Approximately 145 are operations staff dedicated to DEC and DEP. These employees are located



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in 16 individual locations in the Carolinas to ensure timely and effective response to operation needs.

Duke Energy Fleet Services uses a direct charging methodology to allocate costs associated with services provided. All work is captured using an enterprise Work Management system at the individual asset level and charged back based on specific accounting provided for the asset. Rates that covers overhead cost including facilities, tools, materials not in inventory, supervision, administration, etc. are applied to actual labor hours. Costs associated with fuel, parts, ownership, and work done by outsource providers are also applied at the individual asset level. This ensures proper allocation of charges based on the individual equipment cost, maintenance, and fuel consumption. This methodology insures all costs, including overheads, are appropriately allocated to the jurisdictions for which the vehicles and equipment are supporting or to the non-regulated entities that are also a part of Duke Energy.

3) Provide a short narrative explaining how the service function performs a cost-benefit analysis:

Duke Energy Fleet Services consistently evaluates services provided to the utility to ensure it is providing good value. Fleet Services uses three main benchmarks and data points for this evaluation. Both the summary results of market cost and industry benchmark as well as the survey results are attached to this report.

1. **Market Cost Comparison** – Fleet Services compares its total cost, which includes acquisition and maintenance for key units, to the cost of leasing the same units with a maintenance agreement. This analysis is performed for specific types of units (light-duty vehicles and medium/heavy duty trucks) which represent approximately 56% of our total fleet. This provides directional feedback on its cost as it is not an apples-to-apples comparison. Lease maintenance agreements exclude items that are common maintenance and repair items for units like cracked windshields, tire work, and other damage associated with utility work. Finally, this benchmark does not account for utility-specific business requirements like response time and storm support. Attached is the 2015 analysis for light-duty vehicles and medium/heavy duty trucks which accounts for over 56% of the total fleet.
 - a. **2015 Results:** Duke Energy Fleet Services' fully loaded monthly cost is lower than the market including maintenance items like tire work, cracked windshield, and minor damage, which are excluded from lease maintenance agreements.
2. **Industry Benchmark** - Duke Energy Fleet Services participates in an industry benchmark study performed by an external transportation industry benchmarking company. This benchmark study includes data



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from utilities across the United States. The study only identifies Duke Energy by name in order to honor confidentiality agreements with the individual utilities that participate in the study. Fleet Services annual analysis includes industry benchmark charts that compares its 3-year average purchase price as well as its fully loaded maintenance cost to the average from all utilities who participate in the external benchmark study. For more standard types of equipment like light-duty vehicles, including SUVs and trucks, the blended average provides a good benchmark to compare both its acquisition and maintenance costs to the industry; however, for more customized equipment like buckets and derricks, the comparison against industry averages is less precise as both purchase price and ongoing maintenance costs are impacted by equipment specifications that are not accounted for in general industry averages. Equipment specifications are developed in collaboration with operations to ensure the needs of the utility are met and are based on the type of work, geography, and overall objectives to enhance safety and efficiency.

- a. **2015 Results:** For the more standard types of equipment, Duke Energy's acquisition and maintenance costs are lower than the industry averages. For the more specialized equipment, specifically buckets and derricks, Duke Energy's acquisition cost is on average or slightly below industry average while the maintenance cost is either on average or slightly above the industry. The majority of Duke Energy's bucket trucks are material handlers which result in higher initial purchase price and maintenance cost. Similarly, Fleet Services' derricks are equipped with remote controls and pin-on buckets which result in higher initial purchase price and maintenance cost. These added options result in added versatility, productivity and safety for our crews. Duke Energy's scale and our focus on standardization allows us to negotiate with manufacturers.
3. **Customer Satisfaction Survey** – Duke Energy Fleet Services conducts an independent survey, which is administered by an external transportation industry benchmarking company. A survey with questions on all aspects of Fleet Services is sent to custodians for all units in Duke Energy's fleet. Fleet Services receives a rollup summary with average scores and a list of comments provided.
 - a. **2015 Results:** Response range from 1- Very Dissatisfied to 6 – Very Satisfied with 5 being Satisfied. Below is a table summarizing the 2015 results by jurisdiction. Duke Energy's system average was 5.36.



2016 Duke Energy Market Study

Average	5.36
Carolinas East	5.30
Carolinas West	5.48
Florida	5.07
Midwest	5.18

4) Provide a listing of all evidence document names being submitted with this form as proof of performing a market study within the last 4 years (2012-2016) (i.e. Benchmark Analysis_2015.ppt):

1. **2015 Fleet Services Market and Benchmark Study** – This document summarizes the results of the 2015 market comparisons and benchmark analysis with other utilities. The charts included in the document came directly from the online 2015 utility benchmark data
2. **2015 Customer Survey** – This is a one page summary with average scores provided by an external benchmarking company by category. A detailed report with comments and average scores for individual questions is also available.

5) Provide the current employee to contingent worker ratio for the function (i.e. total count, FTE's and CW's and %):

Duke Energy Fleet Services does not utilize contingent workers other than to cover for certain clerical functions during vacancies and extended leave of absences. FTE's for maintenance services are supplemented through outsource providers and overtime. Duke Energy leverages resources from other jurisdictions primarily during storm support and other contingencies to support the utility.

6) Use the selectors below to indicate where the Service Function should be plotted on the Feasibility Matrix:

- a) **Impact to the Regulated Utility (How crucial is it to utility operations and compliance?)**

1-Low to 10-High: 9

Fleet Services procures and maintains vehicles and equipment that is used by the utility for all aspects of their work including restoration efforts. Bucket trucks and digger derricks are needed to build and maintain Duke Energy's electric system and provide emergency response, while dozers, locomotives, and cranes support operations of the generation plants. Without this equipment, the regulated utility cannot perform its functions in



2016 Duke Energy Market Study

a safe and efficient manner.

b) Relationship to Core Competency (How unique is the service; do many firms offer similar services on the open market; is it fairly specialized?)

1-Low to 10-High: 9

Fleet Services focuses the efforts of the in-house staff on the items that are critical to the utility. There are no outside companies in the open market that can effectively work on the entire truck (chassis and aerial device) and/or provide the dedicated support and response time required by the utility particularly during storm restoration or emergency response where priorities need to be shifted on a moment's notice. Even during routine business operations, repair deadlines are often negotiated based on the overall benefit to the company. The organization evaluates the cost benefit of doing the work in-house vs. leveraging outsource providers. Support for standard equipment and repair activities that are not cost effective to provide in-house are outsourced. Examples of functions and work that are currently outsourced include the following: body work, glass replacement, transmission re-builds and repairs, hydraulic cylinder repairs, most tire work as well as some heavy construction and light-duty vehicles repairs.

Provide the appropriate point of contact for the Service Function (Who will be able to interview with an auditor and attest to the market study process for the Service Function described in this document):

Responder Name:	Mike Allison
Job Title:	Director Design and Technical Support Services
Organization/Department:	Fleet Services
Telephone Number:	(704) 382-4750
Email Address:	Mike.allison@duke-energy.com
Date Form was Completed:	10/17/2016

Return completed form and all evidence documentation to James Hollingsworth (James.Hollingsworth@duke-energy.com) by 10/31/16.

Fleet Services 2015 Market Comparison

Summary

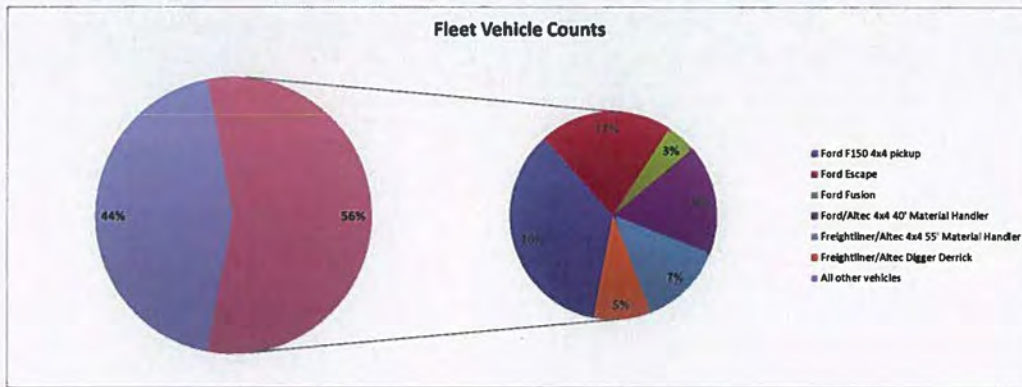
The table below outlines high volume units for Duke Energy Fleet Services. The units listed include both light and medium/heavy duty vehicles. The Ford F150, Escape, and Fusion are in the light duty category, while the Material Handlers and Digger Derricks are in the medium/heavy duty category. The rate information for Enterprise and Global Rentals are based on rate sheets from current agreements.

Highest Volume Fleet Units	Counts in Duke Energy Fleet as of October, 2016	Percentage	Duke Energy 2015 Fully Loaded Ownership, Maintenance and Repair Costs			Enterprise Leasing Long Term with Maintenance Included	Global Rental with Maintenance Included
			per month	per month	per month	per month	per month
Ford F150 4x4 pickup	1647	20%	\$ 446	\$ 633	-	-	
Ford Escape	966	12%	\$ 408	\$ 591	-	-	
Ford Fusion	221	3%	\$ 340	\$ 503	-	-	
Ford/Altec 4x4 40' Material Handler	790	10%	\$ 2,808	-	\$ 2,700	-	
Freightliner/Altec 4x4 55' Material Handler	612	7%	\$ 3,584	-	\$ 3,600	-	
Freightliner/Altec Digger Derrick	416	5%	\$ 3,773	-	\$ 3,800	-	
All other vehicles	3658	44%	-	-	-	-	
Total Count of Highest Volume Vehicles	4652	56%	-	-	-	-	
All On-Road Fleet Vehicles	8310	100%	-	-	-	-	

Fleet Vehicle Count Comparison

The vehicles analyzed in this market and benchmark analysis represent more than half of our total on-road fleet.

Fleet Vehicle Counts

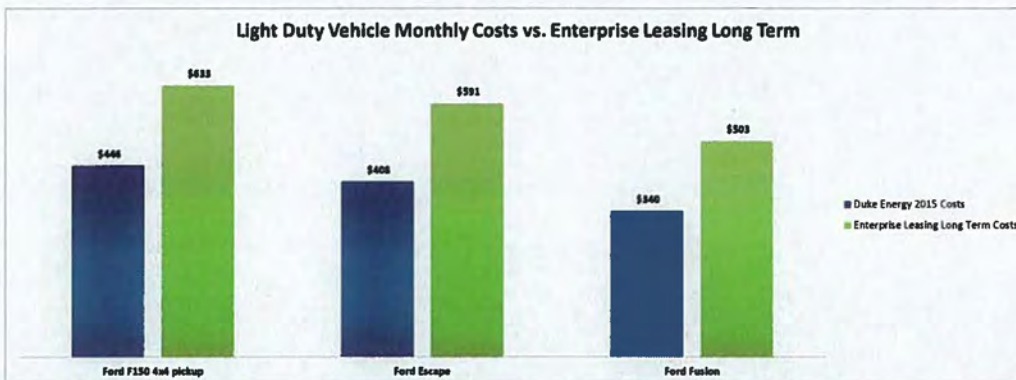


Monthly Cost Comparison

For purposes of the market cost comparison, Fleet Services monthly charges for Light Duty vehicles were compared to Enterprise Leasing Long Term rates. Medium/Heavy Duty vehicles were compared to Global Rental. Rates for both Enterprise and Global included maintenance costs.

Light Duty Vehicles

Enterprise rates include costs for normal maintenance and repair which were spread evenly over 48 months. The Enterprise maintenance and repair costs do not include tire replacements due to damage, cracked windshields or other items that are included in the Duke fully loaded rates. The Enterprise rates do not include Duke Energy contract management and oversight costs.



Medium/Heavy Duty Vehicles

Global Rental rates include normal maintenance and repair, which do not include tire replacement, cracked windshields, and other damage to the trucks that are included in the Duke fully loaded rates. The Global Rental rates do not include Duke Energy contract management and oversight costs.

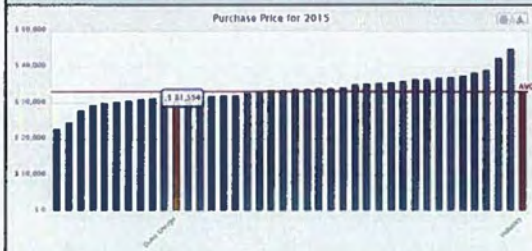


Benchmarking Data

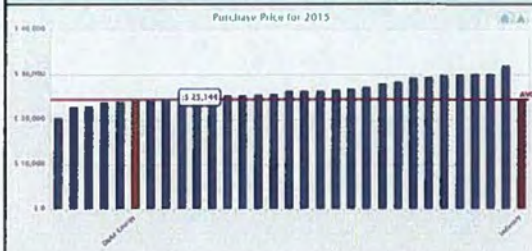
Below are graphs from the 2015 industry benchmarking company that we utilize for comparison of Duke Energy Fleet Services performance in the industry. We utilize this information for high level comparison of Fleet Services performance compared to industry averages. This data is a blended average of all participating utilities and does not account for differences in equipment specifications, utility size, and operating models. These graphs are for the same high volume units listed above. For each vehicle type, there is a comparison between the 3-year average purchase price on the left and an overall fully loaded cost of ownership, maintenance, and support costs on the right.

Light Duty Vehicles

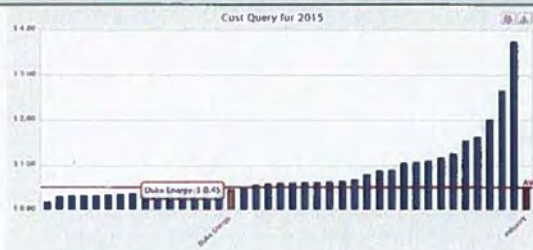
F150 4x4 Pickups



Compact 4x4 SUV's



Mid-size Sedans



Benchmarking Data

Below are graphs from the 2015 industry benchmarking company that we utilize for comparison of Duke Energy Fleet Services performance in the industry. We utilize this information for high level comparison of Fleet Services performance compared to industry averages. This data is a blended average of all participating utilities and does not account for differences in equipment specifications, utility size and operating models. These graphs are for the same high volume units listed above. For each vehicle type, there is a comparison between the 3-year average purchase price on the left and an overall fully loaded cost of ownership, maintenance, and support costs on the right.

Medium/Heavy Duty Vehicles

Light Duty 4x4 Bucket

Note: The majority of the Duke Energy units are material handling bucket trucks which are higher in both initial and maintenance costs as compared to a blended average for bucket trucks.



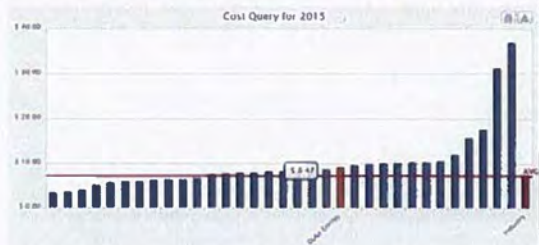
Heavy Duty 4x2 Bucket

Note: The majority of the Duke Energy units are material handling bucket trucks which are higher in both initial and maintenance costs as compared to a blended average for bucket trucks.



Digger Derrick 4x4

Note: The majority of Duke Energy digger derricks have remote controls (\$7500 option) and pin-on buckets. Overall units in the industry would have a much smaller percentage of these options.





2016 Duke Energy Market Study

2016 Market Study Evidence Submission Form

Applicability: Duke Energy Business Services (DEBS), Duke Energy Carolinas (DEC), Duke Energy Progress (DEP)

Originator: State Regulatory Compliance, Ethics and Compliance, Lindsey Adams and Marcos Roberson

Approval: DEC/DEP Rates and Regulatory

Due Date: 10/31/2016

Applicable Regulatory Condition:

Docket No. E-2, Sub 998

Docket No. E-7, Sub 986

5.2 Procurement or Provision of Goods and Services by DEC or DEP to or from Affiliates or Nonpublic Utility Operations.

Please populate and submit this form along with all evidence documentation to Lindsey Adams (lindsey.adams@duke-energy.com) and Marcos Roberson (marcos.roberson@duke-energy.com) by 10/31/16:

- 1) Use the drop down list below to select the DEBS function for which you are attesting:

Transportation

Aviation

If attesting only for a specific area within a function (i.e. CIS IT Support), please list below:

- NA

- 2) Provide a description of the function and the service offerings provided to DEC/DEP by the function:

Corporate Aviation:

Corporate Aviation provides air transportation for company personnel with a fleet of four fixed wing aircraft and one helicopter. The use of one company aircraft allows eight passengers to attend meetings in multiple cities in a day, saving time while increasing their productivity.

Utility Aviation:

Additionally, Duke Energy operates three utility helicopters that are used to



2016 Duke Energy Market Study

survey, inspect and patrol the transmission and distribution lines twice a year on a scheduled basis. When not patrolling on a scheduled basis, the helicopters are used to assess damage after storms or for any other function that directly supports the reliability of the electrical grid in Duke Energy territories.

3) Provide a short narrative explaining how the service function performs a cost-benefit analysis:

Duke Energy *Corporate Aviation* uses industry leader, Conklin & deDecker (<https://www.conklindd.com/Default.aspx>) for benchmarking data. The mission of Conklin & de Decker is to enable the general aviation industry to make more informed decisions when dealing with the operation of aircraft by furnishing objective and impartial information.

Duke Energy *Utility Aviation* solicits quotes from helicopter contractors to benchmark internal costs with contractors.

4) Provide a listing of all evidence document names being submitted with this form as proof of performing a market study within the last 4 years (2012-2016) (i.e. Benchmark Analysis_2015.ppt):

Please see reference above.

5) Provide the current employee to contingent worker ratio for the function (i.e. total count, FTE's and CW's and %):

- 30 FTE. 1 CW (part-time). 3%

6) Use the selectors below to indicate where the Service Function should be plotted on the Feasibility Matrix:

a) Impact to the Regulated Utility (How crucial is it to utility operations and compliance?)

1-Low to 10-High: 10

Utility Aviation impact is high/10:line patrol is a regulatory requirement and storm damage assessment is critical.

Corporate Aviation impact is moderate/5

b) Relationship to Core Competency (How unique is the service; do many firms offer similar services on the open market; is it fairly specialized?)

All aviation function is highly specialized and expensive for outside contractors.



2016 Duke Energy Market Study

1-Low to 10-High: 10

- 7) Provide the appropriate point of contact for the Service Function (*Who will be able to interview with an auditor and attest to the market study process for the Service Function described in this document*):

Responder Name: Jeff Dyrhaug
Job Title: Managing Director, Aviation
Organization/Department: Aviation
Telephone Number: 7043822011
Email Address: Jeff.Dyrhaug@duke-energy.com
Date Form was Completed: 7/31/2016

Return completed form and all evidence documentation to Lindsey Adams (lindsey.adams@duke-energy.com) and Marcos Roberson (marcos.roberson@duke-energy.com) by 10/31/16.

**CONFIDENTIAL PROPRIETARY TRADE
SECRET**

**STAFF-DR-02-144 CONFIDENTIAL
ATTACHMENT 2**

FILED UNDER SEAL

**Duke Energy Kentucky
Case No. 2019-00271
Staff's Second Set Data Requests
Date Received: October 11, 2019**

STAFF-DR-02-145

REQUEST:

Refer to the Direct Testimony of John J. Spanos (Spanos Testimony), page 10. Explain what changes have occurred since the last rate case that would change the terminal net salvage value for generating facilities.

RESPONSE:

The terminal net salvage value for generating facilities are based on the Burns and McDonnel decommissioning study. There is no change to the study since the last rate case. However, the weighted net salvage could change based on total plant retired on an interim basis and the time until final retirement from the study date.

PERSON RESPONSIBLE: John J. Spanos

**Duke Energy Kentucky
Case No. 2019-00271
Staff's Second Set Data Requests
Date Received: October 11, 2019**

STAFF-DR-02-146

REQUEST:

Refer to the Spanos Testimony, page 11, lines 22-23. Provide a copy of the Burns and McDonnell decommissioning studies for the East Bend Generating Station and the Woodsdale Generating Station.

RESPONSE:

Please see STAFF-DR-02-146 for the Burns and McDonnell decommissioning study, which is the same study provided in the last rate case.

PERSON RESPONSIBLE: John J. Spanos



Decommissioning Cost Estimate Study



Duke Energy Kentucky

**Decommissioning Cost Estimate Study
Project No. 95525**

3/22/2017

Decommissioning Cost Estimate Study

prepared for

**Duke Energy Kentucky
Decommissioning Cost Estimate Study
Union, Kentucky**

Project No. 95525

3/22/2017

prepared by

**Burns & McDonnell Engineering Company, Inc.
Kansas City, Missouri**

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LIST OF ABBREVIATIONS

<u>Abbreviation</u>	<u>Term/Phrase/Name</u>
Burns & McDonnell	Burns & McDonnell Engineering Company, Inc.
BOP	Balance of Plant Facilities
C&D	Construction and Demolition
CT	Combustion Turbine
DEK	Duke Energy Kentucky
OSHA	Occupational Safety and Health Administration
PCBs	Polychlorinated Biphenyls
Plants	Power Generation Assets
RS Means	Construction Cost Estimating Data
STG	Steam Turbine Generator
Study	Decommissioning Cost Study

1.0 EXECUTIVE SUMMARY

1.1 Introduction

Burns & McDonnell Engineering Company, Inc. (“Burns & McDonnell”) of Kansas City, Missouri, was retained by Duke Energy Kentucky (“DEK”) to conduct a Decommissioning Cost Study (“Study”) for power generation assets (“Plants”) in Kentucky and Ohio. The assets include natural gas and coal-fired generating facilities. The purpose of the Study was to review the facilities and to make a recommendation to DEK regarding the total cost to decommission the facilities at the end of their useful lives. The decommissioning costs were developed by Burns & McDonnell using information provided by DEK and in-house data available to Burns & McDonnell.

1.2 Results

Burns & McDonnell has prepared cost estimates in 2016 dollars for the decommissioning of the Plants. These cost estimates are summarized in Table 1-1. When DEK determines that the Plants should be retired, the above grade equipment and steel structures are assumed to have sufficient scrap value to a scrap contractor to offset a portion of the decommissioning costs. DEK will incur costs in the demolition and restoration of the sites less the scrap value of equipment and bulk steel.

Table 1-1: Decommissioning Cost Estimate Summary (2016\$)

Plant	Decommissioning Costs	Credits	Net Project Cost
Woodsdale Station	\$ 10,067,000	\$ (3,800,000)	\$ 6,267,000
Miami Fort Station Unit 6 – Retire in Place ^[1]	\$ 13,046,000	\$ (257,000)	\$ 12,789,000
Miami Fort Station Unit 6– Full Demolition ^[2]	\$ 5,754,000	\$ (1,903,000)	\$ 3,851,000
East Bend Station	\$ 42,321,000	\$ (7,987,000)	\$ 34,334,000

Notes:

[1]: Retire in Place costs are assumed to be incurred in the near term to reduce environmental liabilities and risks associated with a non-operating unit.

[2]: The Full Demolition costs are in addition to the Retire in Place costs and are assumed to take place after the retirement of all of the currently operating units owned by Dynegy.

The total net project costs presented above include the costs to return the sites to an industrial condition suitable for reuse for development of an industrial facility. Included are the costs to dismantle the power generating equipment owned by DEK as well as the costs to dismantle the DEK-owned balance of plant facilities (“BOP”) and environmental site restoration activities.

DEK does not own all assets at Miami Fort Station and only those assets associated with Unit 6 are considered in this Study.

1.3 Statement of Limitations

In preparation of this decommissioning study, Burns & McDonnell has relied upon information provided by DEK. Burns & McDonnell acknowledges that it has requested the information from DEK that it deemed necessary to complete this study. While Burns & McDonnell has no reason to believe that the information provided, and upon which Burns & McDonnell has relied, is inaccurate or incomplete in any material respect, Burns & McDonnell has not independently verified such information and cannot guarantee its accuracy or completeness.

Burns & McDonnell’s estimates and projections of decommissioning costs are based on Burns & McDonnell’s experience, qualifications and judgment. Since Burns & McDonnell has no control over weather, cost and availability of labor, material and equipment, labor productivity, construction contractors’ procedures and methods, and other factors, Burns & McDonnell does not guarantee the accuracy of its estimates and projections.

Burns & McDonnell’s estimates do not include allowances for unforeseen environmental liabilities associated with unexpected environmental contamination due to events not considered part of normal operations, such as fuel tank ruptures, oil spills, etc. Estimates also do not include allowances for environmental remediation associated with changes in classification of hazardous materials.

2.0 INTRODUCTION

2.1 Background

Burns & McDonnell was retained by DEK to conduct a study for Plants in Kentucky and Ohio to estimate the decommissioning costs. The assets include natural gas and coal-fired generating facilities.

Individuals from Burns & McDonnell visited each of the Plants covered by the Study in January of 2017. The purpose of the Study was to review the facilities and to make a recommendation to DEK regarding the total cost to decommission the facilities at the end of their useful lives.

Burns & McDonnell has prepared decommissioning studies for over 100 facilities on various types of fossil fuel and renewables power plants using a proven approach to developing these estimates. In addition to preparing decommissioning estimates, Burns & McDonnell has supported demolition projects as the owner's engineer, to evaluate demolition bids and oversee demolition activities. This has provided Burns & McDonnell with insight into the range of competitive demolition bids, which also assists in confirming the reasonableness of the decommissioning estimates developed by Burns & McDonnell.

2.2 Study Methodology

The site decommissioning costs were developed using information provided by DEK and in-house data Burns & McDonnell has collected from previous project experience. Burns & McDonnell estimated quantities for equipment based on a visual inspection of the facilities, review of engineering drawings, Burns & McDonnell's in-house database of plant equipment quantities, and Burns & McDonnell's professional judgment. This resulted in an estimate of quantities for the tasks required to be performed for each decommissioning effort. Current market pricing for labor rates, equipment, and unit pricing were then developed for each task. The unit pricing was developed for each site based on the labor rates, equipment costs, and disposal costs specific to the area in which the work is to be performed. These rates were applied to the quantities for the Plants to determine the total cost of decommissioning for each site.

The decommissioning costs include the cost to return the site to an industrial condition, suitable for reuse for development of an industrial facility, commonly referred to as a brownfield site. Included are the costs to decommission all of the assets owned by DEK at the site, including power generating equipment and BOP facilities.

2.3 Site Visits

Representatives from Burns & McDonnell and DEK visited the sites. The site visits consisted of a tour of each facility with plant personnel to review the equipment installed at each site. Tours were conducted by plant personnel.

Mr. John Edelen, from Duke Energy Kentucky, served as the DEK representative throughout the site visits, along with plant personnel at each of the sites.

The following Burns & McDonnell representatives comprised the site visit team:

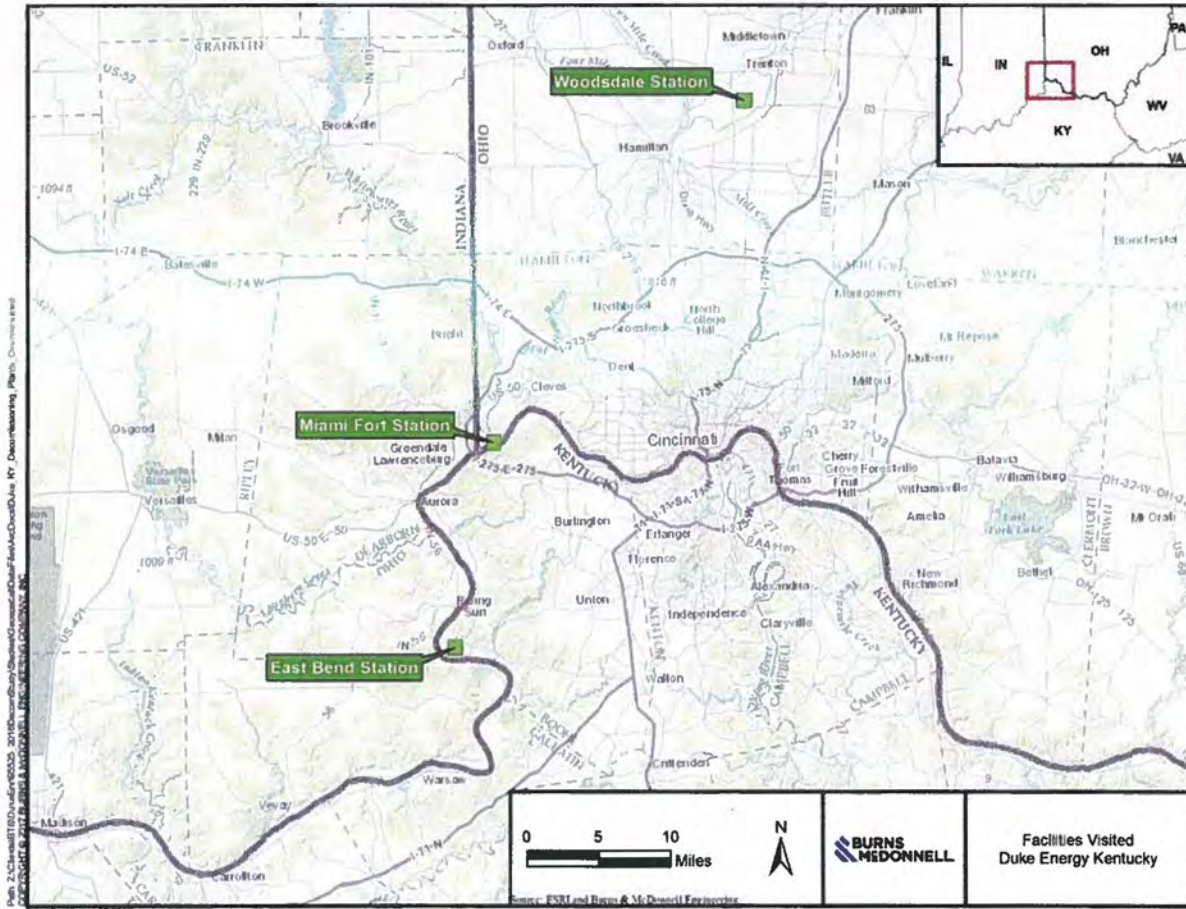
- Mr. Jeff Kopp, Project Manager
- Mr. Thom Bristow, Project Engineer
- Ms. Sara Ruckman, Lead Consultant

The site visits were performed on the following dates.

Table 2-1: Site Visit Dates

Plant	Site Visit Date
Woodsdale	December 12, 2016
Miami Fort	December 13, 2016
East Bend	December 13, 2016

Figure 2-1: DEK Facilities Visited



3.0 PLANT DESCRIPTIONS

The following sections provide site descriptions for each of the power plants included in this Study.

3.1 Simple Cycle / Combustion Turbines

3.1.1 Woodsdale

Woodsdale plant is located in Trenton, Ohio. The facility consists of six identical natural gas-fired combustion turbines operating in simple cycle mode. Operation began in 1992 with Unit 2 through Unit 6, followed by the operation of Unit 1 in 1993. The plant has a total capacity of 564.0 MW, with each unit's nameplate capacity equating to 95.3 MW.

3.2 Coal Generation

3.2.1 Miami Fort

Miami Fort plant consists of four units located in North Bend, Ohio, adjacent to the Ohio River. Commercial operation began in 1925. Units 1 & 2 retired in 1971 and were replaced by Unit 8. Units 3 & 4 retired in 1981, and Unit 5 retired on December 31, 2007. Only two units remain in operation (Units 7 & 8). Unit 6, owned by DEK, has a nameplate capacity of 163 MW.

Unit 5 and Unit 6 share many of the same assets and are housed in the same facilities. Unit 6 is owned by DEK, and Unit 5 is owned by Dynegy. Assets owned by Dynegy are not included in the scope of this project.

3.2.2 East Bend

East Bend is located in Union, Kentucky, adjunct to the Ohio River. Originally, it was planned for two or more units to be built, but after the construction and beginning operation of Unit 2 in 1981, no additional units were built to completion. Unit 2 is a coal-fired boiler with a nameplate capacity of 772.0 MW. A steam turbine and the concrete for a control center building were built for Unit 1. These assets were left on site and have not been removed.

4.0 DECOMMISSIONING COSTS

Burns & McDonnell has prepared decommissioning cost estimates for the Plants. When DEK determines that each site should be retired, the above grade equipment and steel structures are assumed to have sufficient scrap value to a scrap contractor to offset a portion of the site decommissioning costs. However, DEK will incur costs of decommissioning of the Plants and restoration of the site to the extent that those costs exceed the scrap value of equipment and bulk steel.

The decommissioning costs include the cost to return the site to an industrial condition, suitable for reuse for development of an industrial facility. Included are the costs to dismantle all of the assets owned by DEK at the sites, including power generating equipment and BOP facilities, as well as environmental site restoration activities.

For purposes of this Study, Burns & McDonnell has assumed that each site will be decommissioned as a single project allowing the most cost effective demolition methods to be utilized. However, due to the current operation of Unit 7 and Unit 8 owned by Dynegy at Miami Fort, two (2) decommissioning cost estimates have been developed for that facility. The first summary provides cost estimates to retire in place the equipment and facilities for Unit 6. This includes performing tasks to reduce environmental and safety risks until full demolition occurs in the future. The retire in place cost summary also includes the removal of both Unit 6 precipitators to mitigate safety risks and to eliminate the need for maintenance of the retired assets in the future. The second cost estimate summary for Miami Fort included the costs associated with decommissioning and demolishing the entire plant as a single project. In this cost estimate, DEK is only responsible for costs associated with the Unit 6 assets that they own. Duke will be responsible for both the retire in place costs and full demolition of Unit 6, but the costs will be incurred at different times.

A summary of several of the means and methods that could be employed is summarized in the following paragraphs; however, means and methods will not be dictated to the contractor by Burns & McDonnell. It will be the contractor's responsibility to determine means and methods that result in safely decommissioning the Plants at the lowest possible cost.

Asbestos remediation, as required, would take place prior to commencement of any other demolition activities. Abatement would need to be performed in compliance with all state and federal regulations, including, but not limited to, requirements for sealing off work areas and maintaining negative pressure throughout the removal process. Final clearances and approvals would need to be achieved prior to performing further demolition activities.

High grade assets would then be removed from the site, to the extent possible. This would include items such as transformers, transformer coils, circuit breakers, electrical wire, condenser plates and tubes, and heater tubes. High grade assets include precious alloys such as copper, aluminum-brass tubes, stainless steel tubes, and other high value metals occurring in plant systems. High grade asset removal would occur up-front in the schedule, to reduce the potential for vandalism, to increase cash flow, and for separation of recyclable materials, in order to increase scrap recovery. Methods of removal vary with the location and nature of the asset. Small transformers, small equipment, and wire would likely be removed and shipped as-is for processing at a scrap yard. Large transformers, combustion turbines (“CT”), steam turbine generators (“STG”), and condensers would likely require some on-site disassembly prior to being shipped to a scrap yard.

Construction and Demolition (“C&D”) waste includes items such as non-asbestos insulation, roofing, wood, drywall, plastics, and other non-metallic materials. C&D waste would typically be segregated from scrap and concrete to avoid cross-contaminating of waste streams or recycle streams. C&D demolition crews could remove these materials with equipment such as excavators equipped with material handling attachments, skid steers, etc. This material would be consolidated and loaded into bulk containers for disposal.

In general, boilers could be felled and cut into manageable sized pieces on the ground. First the structures around the boilers would need to be removed using excavators equipped with shears and grapples. Stairs, grating, elevators, and other high structures would be removed using an “ultra-high reach” excavator, equipped with shears. Following removal of these structures, the boilers would be felled, using explosive blasts. The boilers would then be dismantled using equipment such as excavators equipped with shears and grapples, and the scrap metal loaded onto trailers for recycling.

After the surrounding structures and ductwork have been removed, the stacks would be imploded, using controlled blasts. Following implosion the stack liners and concrete would be reduced in size to allow for handling and removal.

BOP structures and foundations would likely be demolished using excavators equipped with hydraulic shears, hydraulic grapples, and impact breakers, along with workers utilizing open flame cutting torches. Steel components would be separated, reduced in size, and loaded onto trailers for recycling. Concrete would be broken into manageable sized pieces and stockpiled for crushing on-site. Concrete pieces would ultimately be loaded in a hopper and fed through a crusher to be sized for on-site disposal.

For the retire in place estimate, the Miami Fort Unit 6 precipitators would likely be demolished utilizing a crane for removal from the top of the building, then cutting them into manageable sized pieces on the ground, since it cannot be felled, due to the continued operation of the remaining units.

4.1 General Assumptions for All Sites

The following assumptions were made as the basis of all of the cost estimates.

1. All cost estimates are in current 2016 dollars.
2. All estimates are budgetary in nature and do not reflect guaranteed costs. Budgetary refers to the nature of the itemized cost estimate being for planning purposes only and not a guarantee.
3. All estimates are based on labor rates from RS means values for a demolition crew B-8 with adjusted rates based on the local site cost index for the Plants.
4. All work will take place in a safe and cost efficient method.
5. Labor costs are based on a regular 40-hour workweek without overtime.
6. The estimates are inclusive of all costs necessary to properly dismantle and decommission all sites to a marketable or usable condition. For purposes of this Study and the included cost estimates, the sites will be restored to a condition suitable for industrial use. Such sites that are restored for reuse in industrial settings are referred to as brownfield sites.
7. Abatement of asbestos will precede any other work. After final air quality clearances have been reached, demolition can proceed.
8. All facilities will be decommissioned to zero generating output. Existing utilities will remain in place for use by the contractor for the duration of the demolition activities.
9. It is assumed that all of the power stations will be dismantled after all units at a single site are taken out of service, allowing dismantlement of entire sites at once with the exception of the retire in place cost estimate.
10. Soil testing and any other on-site testing has not been conducted for this study.
11. Transmission switchyards and substations outside the boundaries of the plant are not part of the demolition scope.
12. The costs for relocation of transmission lines, or other transmission assets, are specifically excluded from the decommissioning cost estimates.
13. Any costs necessary to support on-going operations of adjacent or newly proposed units will be allocated to the operating costs of the units not being decommissioned.
14. All demolition and abatement activities, including removal of asbestos, will be done in accordance with any and all applicable Federal, State and Local laws, rules and regulations.
15. Any residual oil or sludge in tanks and pipes will be cleaned up by DEK prior to demolition.

16. The scrap value of the equipment is based on the equipment being at the end of its useful life at the time of demolition; therefore, the equipment will not have a value on the grey market for reinstallation. Equipment will have value as scrap only at the time of site demolition.
17. All scrap materials include a deduction for transportation and are based on pricing at the Cincinnati hub and, with the exception of stainless steel, which is based on the Cleveland hub.
18. All scrap will be transported by truck rather than by train due to the high costs associated with shipping by train for this short of a distance.
19. It is assumed that sufficient area to receive, assemble and temporarily store equipment and materials is available.
20. Step-up transformers, auxiliary transformers, and spare transformers are included for demolition and scrap in all estimates.
21. Demolition will include the removal of all structures, equipment, tanks, conveyer systems, ancillary buildings, and any other associated equipment to two (2) feet below grade.
22. To the extent possible, concrete will be crushed and disposed of on-site. During crushing of the concrete, a large magnet is utilized to remove all rebar. All other non-hazardous material with no scrap value will be disposed of off-site at the nearest landfill.
23. All above grade plant structures and materials such as fire walls, masonry, doors, windows, building finishes, plumbing, HVAC ductwork, lighting fixtures, cable trays, etc., will be disposed of off-site at the nearest landfill.
24. Foundations and ground floor slabs will be removed to two (2) feet below grade. The surface will be graded for drainage using onsite soil and seeding.
25. All pipe supports, and pipe racks will be demolished and scrapped.
26. Three feet of soil beneath the fuel oil tanks is to be removed and replaced with clean fill.
27. Hazardous material abatement is included for all sites as necessary, including asbestos, mercury, and polychlorinated biphenyls ("PCBs"). Lead paint coated materials will be handled by certified personnel compliant with OSHA Standards as necessary, but will not be removed prior to demolition. Scrap steel can be taken to scrap brokers with lead paint still intact, and it will not impact the scrap value.
28. All portable tanks will be removed from the site and scrapped, including any propane tanks, oil storage tanks, and waste oil tanks.
29. All production wells will be closed as per state regulations. Production wells will be filled with grout to approximately five feet below surface grade. The top five feet will be overdrilled and filled with soil backfill to grade on top of the grout. Monitoring wells will remain intact.

30. All chemicals will be consumed or disposed of by the Plant prior to shut down, including process chemicals in equipment, stored chemicals, and laboratory chemicals.
31. Any observable surface spill will be cleaned up.
32. All trash, debris, and miscellaneous waste will be removed and disposed of properly.
33. The substation equipment owned by the Plant including breakers, air break disconnect switch, busbars, grounding cable and transformers up to the interconnection point will be removed.
34. Underground piping will be capped and abandoned in place. Circulating water tunnels will be filled with flowable fill.
35. No environmental costs have been included to address cleanup of contaminated soils, hazardous materials, or other conditions present on-site having a negative environmental impact, other than those specifically listed in these assumptions. No allowances are included for unforeseen environmental remediation activities.
36. Handling and disposal of hazardous material will be performed in compliance with the approved methods of DEK's Environmental Services Department.
37. Ash ponds and landfills are excluded from the scope of this Study.
38. Storm water ponds will be drained and the area graded out to allow for natural drainage.
39. Site areas will be graded to achieve suitable site drainage to natural drainage patterns, but grading will be minimized to the extent possible.
40. Existing basements will be used to bury non-hazardous debris. Concrete in trenches and basements will be perforated to create drainage. Non-hazardous debris, such as concrete will be crushed and used as clean fill on-site once the capacity of all existing basements has been exceeded. All inert debris will be disposed of on-site. Costs for offsite disposal are included for materials not classified as inert debris.
41. Major equipment, structural steel, CTs, generators, inlet filters, exhaust stacks, transformers, electrical equipment, cabling, wiring, pump skids, above ground piping, and equipment enclosures for the above equipment will be sold for scrap and removed from the Plant site by the demolition contractor. All other demolished materials are considered debris.
42. Valuation and sale of land and all replacement generation costs are excluded from this scope.
43. Spare parts inventories were not provided to Burns & McDonnell for review. Burns & McDonnell assumes that to the extent possible spare parts will be sold prior to decommissioning and remaining spare parts will be scrapped by the demolition contractor.
44. Rolling stock, including rail cars, dozers, plant vehicles, etc. is assumed to be removed by DEK prior to decommissioning.

45. The scope of the costs included in the Study is limited to the decommissioning activities that will occur at the end of useful life of the facilities. Additional on-going costs may be required. These costs are excluded from the cost estimates provided in this Study.
46. A 20 percent contingency was included on the direct costs in the estimates prepared as part of this Study to cover unknowns.
47. Indirect costs are included in the cost estimate to cover owner expenses such as management trailers, utilities, etc. which may impact the cost of decommissioning each site. An indirect cost of 5 percent was included in the estimates to cover such costs.
48. Market conditions may result in cost variations at the time of contract execution.

4.2 Site Specific Decommissioning Assumptions

The following assumptions were made specific to each plant cost estimate.

4.2.1 Woodsdale

1. The Madison Plant northwest of the Woodsdale Plant is not included in the scope of this Study.
2. No further work is necessary to restore the area where Unit 7 through Unit 12 were planned.
3. Due to the vintage of the plant, it is assumed no asbestos or lead paint is present.
4. Scrap values, net of transportation costs, used in the Study are as follows:
 - a. Steel \$174.62/ton
 - b. Copper \$1.74/lb
 - c. Aluminum \$0.42/lb
 - d. Brass \$1.31/lb

4.2.2 Miami Fort – Retirement in Place

5. Due to continued operation of Unit 7, and Unit 8 owned by Dynegy, and for purposes of maintaining structural integrity of plant facilities, assets owned by DEK will not be removed from the plant under the retirement in place scenario unless they pose a safety risk.
6. Both precipitators, old and new, and induced draft fans associated with Unit 6 will be removed. The old precipitator is currently seen as a safety hazard if it were to be retired in place, due to its vintage, and the new precipitator would require routine maintenance if retired in place and, therefore, it is assumed that they both will be removed.
7. Asbestos abatement of all DEK owned assets will precede any other work.
8. Materials from the demolition of Unit 6 precipitators will be scrapped and moved off-site.
9. Oil-filled transformers will be drained and the oil disposed of properly.
10. The chimney will be capped.

11. Fuel oil tanks in underground vault will be cleaned, flushed, and abandoned in place.

4.2.3 Miami Fort – Full Demolition

1. A full demo of the Miami Fort power plant is assumed to take place after the retirement of all of the currently operating units owned by Dynegy. The full demolition costs are in addition to the Retire in Place costs that will be incurred.
2. The full demolition costs include only the assets owned by DEK. These assets include Unit 6 boiler and steam turbine, three conveyors (#11, #12, and conveyer G), Unit 5 coal crusher, Unit 5 vacuum pump, and the exhaust stack. The building housing the four steam turbines is assumed to be 25 percent owned by DEK and, therefore, 25 percent of the demolition costs will be paid for by DEK.
3. The chimney is assumed to be imploded upon the retirement of all of the currently operating units owned by Dynegy due to the cost to remove the stacks mechanically with adjacent units in operation being approximately ten times that of implosion.
4. It is assumed that no material was removed from the site during construction; therefore, borrow material is available on-site to be used to backfill the basement.
5. Due to the vintage of the plant, lead based paint is assumed to be present.
6. Mooring cells and barge unloading facilities are not included in the scope of this Study.
7. Scrap values, net of transportation costs, used in the Study are as follows:
 - a. Steel \$180.68/ton
 - b. Copper \$1.74/lb
 - c. Aluminum \$0.42/lb
 - d. Brass \$1.34/lb
 - e. Stainless steel \$0.66/lb

4.2.4 East Bend

1. Due to the vintage of the plant it is assumed no asbestos or lead paint is present.
2. The coal pile area will be excavated to a depth of one foot, graded, capped, and covered with imported topsoil.
3. The landfill is not included in the scope of this Study.
4. Mooring cells and unloading facilities are included in the Study.
5. It is assumed that no material was removed from the site during construction; therefore, borrow material is available on-site to be used to backfill the basement.
6. Scrap values, net of transportation costs, used in the Study are as follows:
 - a. Steel \$176.3/ton

- b. Copper \$1.74/lb
- c. Aluminum \$0.42/lb
- d. Brass \$1.33/lb
- e. Stainless steel \$0.65/lb

4.3 Results

Table 4-1 presents a summary of the decommissioning cost for each Plant. This summary provides a breakout of the major decommissioning activities and the scrap value for the Plant.

Table 4-1: Decommissioning Cost Estimate Summary (2016\$)

Plant	Decommissioning Costs	Credits	Net Project Cost
Woodsdale Station	\$ 10,067,000	\$ (3,800,000)	\$ 6,267,000
Miami Fort Station Unit 6 – Retire in Place ^[1]	\$ 13,046,000	\$ (257,000)	\$ 12,789,000
Miami Fort Station Unit 6– Full Demolition ^[2]	\$ 5,754,000	\$ (1,903,000)	\$ 3,851,000
East Bend Station	\$ 42,321,000	\$ (7,987,000)	\$ 34,334,000

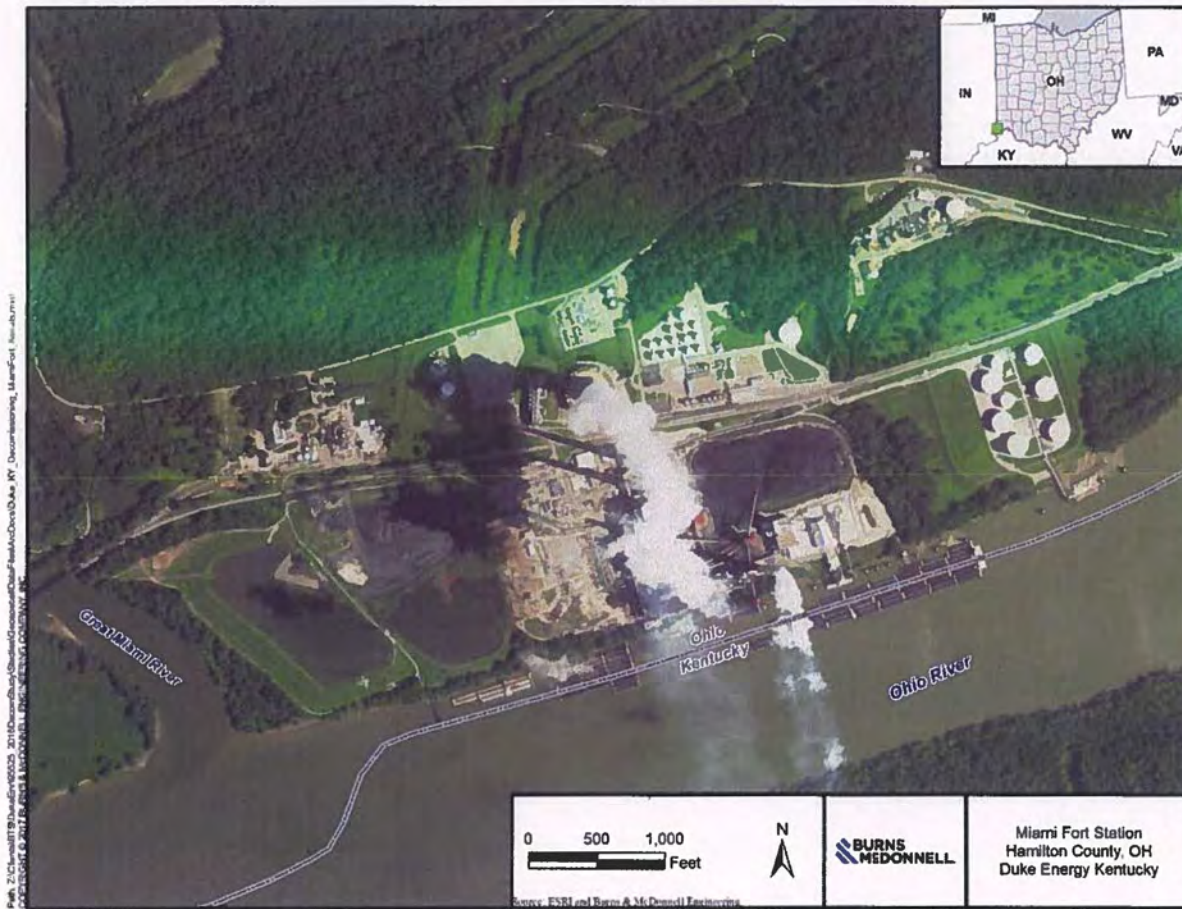
Notes:

[1]: Retire in Place costs are assumed to be incurred in the near term to reduce environmental liabilities and risks associated with a non-operating unit.

[2]: The Full Demolition costs are in addition to the Retire in Place costs and are assumed to take place after the retirement of all of the currently operating units owned by Dynegey.

APPENDIX A - PLANT AERIALS

Figure 2: Miami Fort Station



APPENDIX B - COST ESTIMATE SUMMARIES

Table B-1
Woodsdale
Decommissioning Cost Summary

	Labor	Material and Equipment	Disposal	Environmental	Total Cost	Scrap Value
Woodsdale						
<i>Unit 1 - 6</i>						
CTs	\$ 1,752,000	\$ 2,038,000	\$ -	\$ -	\$ 3,790,000	\$ -
Stack (Metal)	\$ 34,000	\$ 40,000	\$ -	\$ -	\$ 74,000	\$ -
GSUs, Electrical, & Foundation	\$ 124,000	\$ 145,000	\$ -	\$ -	\$ 269,000	\$ -
On-site Concrete Crushing & Disposal	\$ -	\$ -	\$ 33,000	\$ -	\$ 33,000	\$ -
Debris	\$ -	\$ -	\$ 1,000	\$ -	\$ 1,000	\$ -
Scrap	\$ -	\$ -	\$ -	\$ -	\$ -	\$ (3,502,000)
Subtotal	\$ 1,910,000	\$ 2,223,000	\$ 34,000	\$ -	\$ 4,167,000	\$ (3,502,000)
<i>Common</i>						
Water Treatment Equipment and Piping	\$ 351,000	\$ 408,000	\$ -	\$ -	\$ 758,000	\$ -
Roads	\$ 409,000	\$ 476,000	\$ -	\$ -	\$ 886,000	\$ -
All BOP Buildings	\$ 377,000	\$ 439,000	\$ -	\$ -	\$ 817,000	\$ -
All Other Tanks	\$ 191,000	\$ 222,000	\$ -	\$ -	\$ 413,000	\$ -
Propane Boiler	\$ 113,000	\$ 131,000	\$ -	\$ -	\$ 244,000	\$ -
Switchgear & Electrical	\$ 5,000	\$ 6,000	\$ -	\$ -	\$ 11,000	\$ -
Transformer Oil Cleanup	\$ -	\$ -	\$ -	\$ 161,000	\$ 161,000	\$ -
Transformer Pad and Soil Removal	\$ -	\$ -	\$ -	\$ 85,000	\$ 85,000	\$ -
Plant Wash Down and Cleanup	\$ -	\$ -	\$ -	\$ 69,000	\$ 69,000	\$ -
Mercury and Universal Waste Cleanup	\$ -	\$ -	\$ -	\$ 11,000	\$ 11,000	\$ -
Battery Removal	\$ -	\$ -	\$ -	\$ 10,000	\$ 10,000	\$ -
Concrete Removal, Crushing, & Disposal	\$ -	\$ -	\$ 76,000	\$ -	\$ 76,000	\$ -
Grading & Seeding	\$ -	\$ -	\$ -	\$ 340,000	\$ 340,000	\$ -
Debris	\$ -	\$ -	\$ 5,000	\$ -	\$ 5,000	\$ -
Scrap	\$ -	\$ -	\$ -	\$ -	\$ -	\$ (298,000)
Subtotal	\$ 1,446,000	\$ 1,682,000	\$ 81,000	\$ 676,000	\$ 3,886,000	\$ (298,000)
Woodsdale Subtotal	\$ 3,356,000	\$ 3,905,000	\$ 115,000	\$ 676,000	\$ 8,053,000	\$ (3,800,000)
TOTAL DECOM COST (CREDIT)					\$ 8,053,000	\$ (3,800,000)
PROJECT INDIRECTS (5%)					\$ 403,000	
CONTINGENCY (20%)					\$ 1,611,000	
TOTAL PROJECT COST (CREDIT)					\$ 10,067,000	\$ (3,800,000)
TOTAL NET PROJECT COST (CREDIT)					\$ 6,267,000	

Table B-2
Miami Fort
Decommissioning Cost Summary - Retire in Place

Description	One Time Costs	Scrap Value
Miami Fort		
<i>Unit 6</i>		
Asbestos Abatement	\$ 6,253,000	\$ -
Shutdown Plant Equipment & Structures	\$ 48,000	\$ -
Site Cleanup	\$ 12,000	\$ -
Precipitator Removal	\$ 4,124,000	\$ (257,000)
Retirement in Place Subtotal	\$ 10,437,000	\$ (257,000)
TOTAL RETIRE IN PLACE COST (CREDIT)	\$ 10,437,000	\$ (257,000)
PROJECT INDIRECTS (5%)	\$ 522,000	
CONTINGENCY (20%)	\$ 2,087,000	
TOTAL PROJECT COST (CREDIT)	\$ 13,046,000	\$ (257,000)
TOTAL NET PROJECT COST (CREDIT)	\$ 12,789,000	

*Note: Due to future degradation, the cost to mechanically demolish the chimney prior to shut-down of Units 7 & 8 would cost up to approximately \$3.9 million based on recent demolition contractor bids.

Table B-3
Miami Fort
Decommissioning Cost Summary - Full Demolition

	Labor	Material and Equipment	Disposal	Environmental	Total Cost	Scrap Value
Miami Fort						
<i>Unit 6</i>						
Boiler	\$ 997,000	\$ 1,159,000	\$ -	\$ -	\$ 2,156,000	\$ -
Steam Turbine & Building	\$ 449,000	\$ 523,000	\$ -	\$ -	\$ 972,000	\$ -
Cooling Water Intakes and Circulating Water Pumps	\$ 18,000	\$ 21,000	\$ -	\$ -	\$ 39,000	\$ -
NSCR	\$ 94,000	\$ 110,000	\$ -	\$ -	\$ 204,000	\$ -
Switchgear & Electrical	\$ 10,000	\$ 12,000	\$ -	\$ -	\$ 22,000	\$ -
Stacks	\$ 159,000	\$ 185,000	\$ -	\$ -	\$ 343,000	\$ -
GSU & Foundation	\$ 37,000	\$ 43,000	\$ -	\$ 2,000	\$ 82,000	\$ -
Hazardous Materials Disposal	\$ -	\$ -	\$ 10,000	\$ -	\$ 10,000	\$ -
On-site Concrete Crushing & Disposal	\$ -	\$ -	\$ 131,000	\$ -	\$ 131,000	\$ -
Debris	\$ -	\$ -	\$ 38,000	\$ -	\$ 38,000	\$ -
Scrap	\$ -	\$ -	\$ -	\$ -	\$ -	\$ (1,873,000)
Subtotal	\$ 1,764,000	\$ 2,053,000	\$ 179,000	\$ 2,000	\$ 3,996,000	\$ (1,873,000)
<i>Handling</i>						
Coal Handling Demolition	\$ 37,000	\$ 43,000	\$ -	\$ -	\$ 80,000	\$ -
On-site Concrete Crushing & Disposal	\$ 3,000	\$ 4,000	\$ -	\$ -	\$ 7,000	\$ -
Scrap	\$ -	\$ -	\$ -	\$ -	\$ -	\$ (30,000)
Subtotal	\$ 40,000	\$ 47,000	\$ -	\$ -	\$ 87,000	\$ (30,000)
<i>Common</i>						
Transformers Transformer Oil Cleanup	\$ -	\$ -	\$ -	\$ 3,000	\$ 3,000	\$ -
Transformers Pad and Soil Removal	\$ -	\$ -	\$ -	\$ 8,000	\$ 8,000	\$ -
Refractory Cleanup	\$ -	\$ -	\$ -	\$ 33,000	\$ 33,000	\$ -
Plant Wash Down and Cleanup	\$ -	\$ -	\$ -	\$ 32,000	\$ 32,000	\$ -
Mercury and Universal Waste Cleanup	\$ -	\$ -	\$ -	\$ 11,000	\$ 11,000	\$ -
Nuclear Device Cleanup	\$ -	\$ -	\$ -	\$ 6,000	\$ 6,000	\$ -
Battery Removal	\$ -	\$ -	\$ -	\$ 10,000	\$ 10,000	\$ -
Grading & Seeding	\$ -	\$ -	\$ -	\$ 417,000	\$ 417,000	\$ -
Subtotal	\$ -	\$ -	\$ -	\$ 520,000	\$ 520,000	\$ -
Miami Fort Subtotal	\$ 1,804,000	\$ 2,100,000	\$ 179,000	\$ 522,000	\$ 4,603,000	\$ (1,903,000)
TOTAL DECOM COST (CREDIT)					\$ 4,603,000	\$ (1,903,000)
PROJECT INDIRECTS (6%)					\$ 230,000	
CONTINGENCY (20%)					\$ 921,000	
TOTAL PROJECT COST (CREDIT)					\$ 5,754,000	\$ (1,903,000)
TOTAL NET PROJECT COST (CREDIT)					\$ 3,851,000	

**Table B-4
 East Bend
 Decommissioning Cost Summary**

	Labor	Material and Equipment	Disposal	Environmental	Total Cost	Scrap Value
East Bend						
<i>Unit 2</i>						
Boiler	\$ 3,491,000	\$ 4,061,000	\$ -	\$ -	\$ 7,552,000	\$ -
Steam Turbine & Building	\$ 1,439,000	\$ 1,674,000	\$ -	\$ -	\$ 3,113,000	\$ -
Precipitator	\$ 1,002,000	\$ 1,165,000	\$ -	\$ -	\$ 2,167,000	\$ -
SCR	\$ 606,000	\$ 705,000	\$ -	\$ -	\$ 1,311,000	\$ -
Switchgear & Electrical	\$ 10,000	\$ 12,000	\$ -	\$ -	\$ 22,000	\$ -
Scrubber / FGD	\$ 700,000	\$ 815,000	\$ -	\$ -	\$ 1,515,000	\$ -
Stacks	\$ 237,000	\$ 275,000	\$ -	\$ -	\$ 512,000	\$ -
Cooling Towers & Basin	\$ 714,000	\$ 831,000	\$ -	\$ -	\$ 1,545,000	\$ -
GSU & Foundation	\$ 65,000	\$ 76,000	\$ -	\$ -	\$ 141,000	\$ -
On-site Concrete Crushing & Disposal	\$ -	\$ -	\$ 378,000	\$ -	\$ 378,000	\$ -
Debris	\$ -	\$ -	\$ 61,000	\$ -	\$ 61,000	\$ -
Scrap	\$ -	\$ -	\$ -	\$ -	\$ -	\$ (6,964,000)
Subtotal	\$ 8,264,000	\$ 9,614,000	\$ 438,000	\$ -	\$ 18,317,000	\$ (6,964,000)
<i>Handling</i>						
Coal Handling Demolition	\$ 465,000	\$ 541,000	\$ -	\$ -	\$ 1,006,000	\$ -
Grab Bucket and Coal Unloading Facilities	\$ 720,000	\$ 851,000	\$ -	\$ -	\$ 1,571,000	\$ -
Coal Storage Area Restoration	\$ -	\$ -	\$ -	\$ 4,828,000	\$ 4,828,000	\$ -
Limestone/Gypsum Handling Facilities	\$ 189,000	\$ 220,000	\$ -	\$ -	\$ 409,000	\$ -
On-site Concrete Crushing & Disposal	\$ -	\$ -	\$ 30,000	\$ -	\$ 30,000	\$ -
Scrap	\$ -	\$ -	\$ -	\$ -	\$ -	\$ (438,000)
Subtotal	\$ 1,374,000	\$ 1,612,000	\$ 30,000	\$ 4,828,000	\$ 7,844,000	\$ (438,000)
<i>Common</i>						
Cooling Water Intakes & Circ. Water Equip.	\$ 59,000	\$ 69,000	\$ -	\$ 845,000	\$ 973,000	\$ -
Roads	\$ 631,000	\$ 734,000	\$ 741,000	\$ -	\$ 2,106,000	\$ -
All BOP Buildings	\$ 684,000	\$ 795,000	\$ -	\$ -	\$ 1,479,000	\$ -
Fuel Oil Equipment	\$ 22,000	\$ 26,000	\$ -	\$ -	\$ 48,000	\$ -
All Other Tanks	\$ 180,000	\$ 209,000	\$ -	\$ -	\$ 389,000	\$ -
Transformers & Foundation	\$ 84,000	\$ 97,000	\$ -	\$ -	\$ 181,000	\$ -
Transformers Oil Cleanup	\$ -	\$ -	\$ -	\$ 153,000	\$ 153,000	\$ -
Transformers Pad and Soil Removal	\$ -	\$ -	\$ -	\$ 49,000	\$ 49,000	\$ -
Refractory Cleanup	\$ -	\$ -	\$ -	\$ 16,000	\$ 16,000	\$ -
Plant Wash Down and Cleanup	\$ -	\$ -	\$ -	\$ 32,000	\$ 32,000	\$ -
Mercury and Universal Waste	\$ -	\$ -	\$ -	\$ 11,000	\$ 11,000	\$ -
Fuel Oil Tank Soil Cleanup	\$ -	\$ -	\$ -	\$ 10,000	\$ 10,000	\$ -
Fuel Oil Tank Cleanup	\$ -	\$ -	\$ -	\$ 13,000	\$ 13,000	\$ -
Fuel Oil Line Flushing/Cleanup	\$ -	\$ -	\$ -	\$ 3,000	\$ 3,000	\$ -
Concrete Removal, Crushing, & Disposal	\$ -	\$ -	\$ 60,000	\$ -	\$ 60,000	\$ -
Grading & Seeding	\$ -	\$ -	\$ -	\$ 2,167,000	\$ 2,167,000	\$ -
Debris	\$ -	\$ -	\$ 6,000	\$ -	\$ 6,000	\$ -
Scrap	\$ -	\$ -	\$ -	\$ -	\$ -	\$ (585,000)
Subtotal	\$ 1,660,000	\$ 1,930,000	\$ 807,000	\$ 3,299,000	\$ 7,696,000	\$ (585,000)
East Bend Subtotal	\$ 11,298,000	\$ 13,156,000	\$ 1,276,000	\$ 8,127,000	\$ 33,857,000	\$ (7,987,000)
TOTAL DECOM COST (CREDIT)					\$ 33,857,000	\$ (7,987,000)
PROJECT INDIRECTS (5%)					\$ 1,693,000	
CONTINGENCY (20%)					\$ 6,771,000	
TOTAL PROJECT COST (CREDIT)					\$ 42,321,000	\$ (7,987,000)
TOTAL NET PROJECT COST (CREDIT)					\$ 34,334,000	



CREATE AMAZING.

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9400 Ward Parkway
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F 816-333-3690
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**Duke Energy Kentucky
Case No. 2019-00271
Staff's Second Set Data Requests
Date Received: October 11, 2019**

STAFF-DR-02-147

REQUEST:

Refer to the Spanos Testimony, Exhibit JJS-1, 2018 Depreciation Study, page 7 of 364.

Provide a comparison of the current depreciation rates and the proposed depreciation rates.

RESPONSE:

The attached schedule, STAFF-DR-02-147 Attachment, sets forth a comparison of the current versus proposed depreciation rates.

PERSON RESPONSIBLE: John J. Spanos

DUKE ENERGY KENTUCKY

**PROPOSED AND EXISTING DEPRECIATION ACCRUAL RATES
 RELATED TO ELECTRIC PLANT AS OF DECEMBER 31, 2018**

ACCOUNT		CURRENT RATE	PROPOSED RATE
(1)		(2)	(3)
COMMON PLANT			
1900	STRUCTURES AND IMPROVEMENTS		
	ERLANGER OPERATIONS CENTER	0.97	1.67
	KENTUCKY SERVICE BUILDING - 19TH AND AUGUSTINE	0.41	0.36
	MINOR STRUCTURES	2.14	2.09
1910	OFFICE FURNITURE AND EQUIPMENT	5.00	5.00
1911	ELECTRONIC DATA PROCESSING	20.00	20.00
1940	TOOLS, SHOP AND GARAGE EQUIPMENT	4.00	4.00
1970	COMMUNICATION EQUIPMENT	6.67	6.67
1980	MISCELLANEOUS EQUIPMENT	6.67	6.67
STEAM PRODUCTION PLANT			
3110	STRUCTURES AND IMPROVEMENTS	2.47	3.63
3120	BOILER PLANT EQUIPMENT	2.24	2.89
3123	BOILER PLANT EQUIPMENT - SCR CATALYST	4.56	0.60
3140	TURBOGENERATOR UNITS	2.36	2.82
3150	ACCESSORY ELECTRIC EQUIPMENT	2.24	2.15
3160	MISCELLANEOUS POWER PLANT EQUIPMENT	3.17	3.37
OTHER PRODUCTION PLANT			
3401	RIGHTS OF WAY	3.77	3.21
3410	STRUCTURES AND IMPROVEMENTS	2.52	2.69
3420	FUEL HOLDERS, PRODUCERS AND ACCESSORIES	2.13	2.39
3440	GENERATORS	3.36	3.94
3446	GENERATORS - SOLAR	4.72	4.85
3450	ACCESSORY ELECTRIC EQUIPMENT	3.82	4.18
3456	ACCESSORY ELECTRIC EQUIPMENT - SOLAR	4.44	5.62
3460	MISCELLANEOUS POWER PLANT EQUIPMENT	3.71	3.73
TRANSMISSION PLANT			
3501	RIGHTS OF WAY	1.27	0.99
3520	STRUCTURES AND IMPROVEMENTS	1.96	2.00
3530	STATION EQUIPMENT	2.16	2.22
3531	STATION EQUIPMENT - STEP UP	2.05	2.05
3532	STATION EQUIPMENT - MAJOR	1.73	1.50
3534	STATION EQUIPMENT - STEP UP EQUIPMENT	4.13	3.31
3550	POLES AND FIXTURES	1.76	1.76
3560	OVERHEAD CONDUCTORS AND DEVICES	1.91	1.26
3561	OVERHEAD CONDUCTORS AND DEVICES - CLEARING/ROW	1.74	1.69

DUKE ENERGY KENTUCKY

PROPOSED AND EXISTING DEPRECIATION ACCRUAL RATES
 RELATED TO ELECTRIC PLANT AS OF DECEMBER 31, 2018

ACCOUNT	CURRENT RATE	PROPOSED RATE
(1)	(2)	(3)
DISTRIBUTION PLANT		
3601 RIGHTS OF WAY	1.03	0.81
3610 STRUCTURES AND IMPROVEMENTS	2.26	2.08
3620 STATION EQUIPMENT	2.35	3.10
3622 STATION EQUIPMENT - MAJOR	1.59	1.42
3640 POLES, TOWERS AND FIXTURES	2.09	2.04
3650 OVERHEAD CONDUCTORS AND DEVICES	2.14	2.42
3651 OVERHEAD CONDUCTORS AND DEVICES - CLEARING/ROW	1.65	1.64
3660 UNDERGROUND CONDUIT	1.80	1.60
3670 UNDERGROUND CONDUCTORS AND DEVICES	2.07	2.55
3680 LINE TRANSFORMERS	1.68	1.90
3682 LINE TRANSFORMERS - CUSTOMER	0.31	0.49
3691 SERVICES - UNDERGROUND	1.87	1.70
3692 SERVICES - OVERHEAD	1.21	1.52
3700 METERS	6.32	3.46
3702 UoF METERS	6.85	6.86
3712 COMPANY-OWNED OUTDOOR LIGHTING	5.26	17.90
3720 LEASED PROPERTY ON CUSTOMER PREMISES	-	-
3731 STREET LIGHTING - OVERHEAD	0.73	1.16
3732 STREET LIGHTING - BOULEVARD	1.18	1.21
3733 STREET LIGHTING - CUSTOMER POLES	2.67	2.56
GENERAL PLANT		
3900 STRUCTURES AND IMPROVEMENTS	3.40	2.82
3910 OFFICE FURNITURE AND EQUIPMENT	-	5.00
3911 ELECTRONIC DATA PROCESSING	20.00	20.00
3920 TRANSPORTATION EQUIPMENT	8.56	8.54
3921 TRANSPORTATION EQUIPMENT - TRAILERS	3.84	3.57
3940 TOOLS, SHOP AND GARAGE EQUIPMENT	4.00	4.00
3960 POWER OPERATED EQUIPMENT	6.74	6.00
3970 COMMUNICATION EQUIPMENT	6.67	6.67

**Duke Energy Kentucky
Case No. 2019-00271
Staff's Second Set Data Requests
Date Received: October 11, 2019**

STAFF-DR-02-148

REQUEST:

Refer to the Verderame Testimony, page 5, lines 13 - 17, regarding forward contracts as a hedge to energy prices during scheduled outage conditions. Provide the length of time associated with "forward contract purchases for long-term periods" that can be made if energy prices in the forward market appear to be increasing.

RESPONSE:

The Duke Energy Kentucky's Regulated Risk Limits document specifies that hedges can be purchased within the current month plus the six succeeding months. In addition, special requests can be approved by Duke Energy Global Risk Management group to make forward contract purchases outside the regular term limit.

PERSON RESPONSIBLE: John Verderame

REQUEST:

Refer to the Direct Testimony of John A. Verderame (Verderame Testimony), page 5, lines 21-23, regarding business interruption insurance. Provide an update into Duke Kentucky's evaluation of these insurance products and whether Duke Kentucky has purchased any business interruption insurance as part of its hedging strategy.

RESPONSE:

Duke Kentucky has not purchased business interruption insurance; but insurance remains a mitigation option and the Company will continue to evaluate such products. As part of the Backup Power Supply Plan, Duke Energy evaluates insurance and other financial products to mitigate financial exposure incurred from either high replacement power prices or Capacity Performance assessments. At the last evaluation, insurance products were not deemed an effective hedge vehicle for replacement power purposes. As a Fixed Resource Requirement (FRR) entity in PJM, the Company has an additional option that Reliability Price Model (RPM) participants who are subject to financial non-performance assessment do not. Duke Kentucky can elect the physical Capacity Performance (CP) non-performance assessment option prior to the start of each Delivery Year. PJM Manual 18, states "If such FRR Entity opted to be subject to physical nonperformance assessments, the FRR Entity will be required to update their FRR Capacity Plan for the following Delivery Year with additional MW of Capacity Performance Resources for each MW of FRR net

Performance Shortfall for each Performance Assessment Interval in accordance with Section 11.8. Such FRR Entity shall not be eligible for, or subject to, Bonus Performance Credits.” Duke Kentucky evaluates whether to elect physical or financial CP assessment based on the level of available capacity not required to meet the FRR Plan; and will continue to evaluate the cost effectiveness of insurance products for both replacement power and CP assessment risk.

PERSON RESPONSIBLE: John Verderame

**Duke Energy Kentucky
Case No. 2019-00271
Staff's Second Set Data Requests
Date Received: October 11, 2019**

STAFF-DR-02-150

REQUEST:

Refer to the Verderame Testimony, page 7, lines 4-8, regarding the recovery of replacement power costs during scheduled outages through the fuel adjustment clause (FAC). Confirm that Duke Kentucky limits recovery of replacement power costs through the FAC incurred during scheduled outages to the cost of its own highest-cost generating unit.

RESPONSE:

Yes, Duke Energy Kentucky limits recovery of replacement power cost during scheduled outages to the cost of its own higher cost generating unit.

PERSON RESPONSIBLE: John Verderame

REQUEST:

Refer to the Verderame Testimony, page 7, lines 8-16, regarding risk mitigation associated with forced outages. Explain in more detail Duke Kentucky's risk mitigation strategy for minimizing exposure of energy prices during a forced outage event by the use of short-term financial products.

RESPONSE:

By their nature, forced outages are unexpected events. Therefore, no financial hedges will be purchased in advance. However, as soon as a forced outage happens or a forced outage becomes imminent and unavoidable, the Company can purchase AEP-Dayton Hub (AD Hub) financial future contracts traded on InterContinental Exchange (ICE) to hedge replacement power cost volatility. For example, if notified at 1:00 pm on a Tuesday, East Bend unit 2 (600MW) were coming offline due to a tube leak, the Company could purchase bal-day (Balance of the Day) Real-Time future contracts to mitigate market exposure for the rest of the day. In addition, since the unit would have been offered to PJM for the next day market and it would have passed the 11:00 am deadline to withdraw the offer, the forced outage would create a Real-Time market exposure. The Company would purchase the next day (Wednesday) AD hub Real-Time future contracts to mitigate such risk. If the forced outage were expected to extend beyond the next day, AD hub Day-Ahead futures could be purchased on daily or weekly basis depending on how long the outage would last.

The purchase of all future contracts could potentially be limited by the liquidity available in the marketplace.

PERSON RESPONSIBLE: John Verderame

**Duke Energy Kentucky
Case No. 2019-00271
Staff's Second Set Data Requests
Date Received: October 11, 2019**

STAFF-DR-02-152

REQUEST:

Refer to the Verderame Testimony, page 11, lines 7-19, regarding the need to diversify Duke Kentucky's generation portfolio to meet the increasing load demand. To the extent that load growth also increases projected peak demand, explain how diversifying the current generation portfolio with solar generation resources combined with storage technology will address increasing peak demand.

RESPONSE:

Generating resources are added for reasons beyond satisfying peak demand such as energy value, risk profile and environmental attributes. While diversification is primarily a risk mitigation strategy, the solar and storage additions also provide energy value as well as beneficial environmental attributes.

PERSON RESPONSIBLE: John Verderame

STAFF-DR-02-153

REQUEST:

Refer to the Verderame Testimony, page 15, lines 13-15. Explain why Duke Kentucky utilizes virtual transactions to hedge generator performance risk during startup.

RESPONSE:

Duke Energy Kentucky can utilize virtual transactions as one way of mitigating market exposure to generator non-performance. Generally speaking, Duke Energy Kentucky does not use virtual transactions at generation nodes due to the potential conflict with FERC and PJM market rules that prohibit coordinated inter market financial transactions. Duke Energy Kentucky holds Financial Transmission Right generation hedge positions at the East Bend Node.

If a generator has received a Day Ahead award, but is in an unstable operating condition, such as during a unit startup or is operating with a known contingency that could suddenly impact generation output, customers could be exposed to the financial risk of purchasing replacement Real-Time Energy that the unit has cleared in the Day-Ahead Market and failed to deliver.

While a Day-Ahead virtual bid cancels out all or a portion of the unit's anticipated cleared energy position in the Day-Ahead Market, Duke Energy Kentucky can also mitigate Real Time price exposure through the offer process without the potential conflict with the FTR position.

PERSON RESPONSIBLE: John Verderame

REQUEST:

Refer to the Verderame Testimony, page 20, lines 2-4, regarding the statement that "If the real-time LMP is below a unit's marginal cost of energy, PJM will likely reduce output, or possibly delay or cancel a unit startup." Identify the instances in which PJM would not reduce a committed unit's output, or delay or cancel that unit's startup, when the real-time LMP is below that unit's marginal energy cost.

RESPONSE:

As stated, in most instances when the real-time LMP is below a unit's marginal cost of energy, PJM will likely reduce output, or possibly delay or cancel a unit startup. In the case of a unit following a set-point and being dispatched up by PJM to a higher output, price volatility could cause a period to integrate to a LMP that is lower than the units incremental cost. Thus, if a unit's incremental cost were \$20/MWhr and LMP's during the majority of an hour were \$21/MWhr, but due to price volatility there were a few short-term LMP's during this hour of \$10/MWhr, hourly data after the fact could appear that the hourly integrated LMP was below \$20/MWhr, yet the unit was dispatch to a higher output in that hour.

In the case of the commitment of a large unit, due to uncertainty of Real-Time conditions, PJM may not cancel a unit startup, but after the fact LMP's could materialize below the units cost due to changes in weather, generating unit availability, etc. Thus, PJM

doesn't have perfect foresight – good decisions may appear uneconomic when looking backwards due to unforeseen changes. In addition, due to the nature of no-load cost (\$/hour) and startup cost (\$/startup), frequently generating units that are marginal are compensated an operating reserve credit (make whole payment) after being committed by PJM. Thus, PJM committed a unit, the unit came on-line, and the LMP revenue received by the unit was below the total cost to operate the unit. This is the nature of a unit that is marginal. Due to the fact that no-load and start-up costs aren't necessarily always part of the LMP calculation, these units often lose money and must receive a make whole payment to remain whole.

PERSON RESPONSIBLE: John Verderame

**Duke Energy Kentucky
Case No. 2019-00271
Staff's Second Set Data Requests
Date Received: October 11, 2019**

**PUBLIC STAFF-DR-02-155
(As to Attachment only)**

REQUEST:

Refer to the Verderame Testimony, page 24, lines 8-12. Provide a copy of Duke Kentucky's FRR plan that was submitted in 2019.

RESPONSE:

CONFIDENTIAL PROPRIETARY TRADE SECRET (As to Attachment only)

Please see STAFF-DR-02-155 Confidential Attachment.

PERSON RESPONSIBLE: John Verderame

**CONFIDENTIAL PROPRIETARY TRADE
SECRET**

**STAFF-DR-02-155 CONFIDENTIAL
ATTACHMENT**

FILED UNDER SEAL

REQUEST:

Refer to the Direct Testimony of William Don Wathen, Jr. (Wathen Testimony), page 6, line 17 through page 7, line 20.

- a. Since bonus depreciation for public utilities was eliminated, explain whether Duke Kentucky has increased or anticipates increasing the extent to which it expenses "repairs" for tax purposes while capitalizing the same expenditures for book purposes.
- b. State whether and, if so, describe how the timing differences arising from expensing items for tax purposes while capitalizing them for book purposes are reflected in rates and rate base, including where the rate base effects are reflected in Duke Kentucky's schedules and workpapers.

RESPONSE:

- a. Changes in bonus depreciation rules have no impact on the dollar amount of "repairs" taken for tax purposes because "repairs" are given first priority before evaluating any potential for bonus depreciation. Stated another way, the Company first evaluates whether or not a project qualifies as repair and then, if it does not qualify as repair, we test to see if it qualifies for bonus depreciation under current tax law.

- b. The timing differences arising from expensing items for tax purposes while capitalizing them for book purposes results in accumulated deferred income taxes (ADIT), which may impact rate base. These ADIT balances can be found on Schedule B-1 and B-6 in the Company's filing.

PERSON RESPONSIBLE: John Panizza – a.
Sarah E. Lawler – b.

**Duke Energy Kentucky
Case No. 2019-00271
Staff's Second Set Data Requests
Date Received: October 11, 2019**

STAFF-DR-02-157

REQUEST:

Refer to the Wathen Testimony, page 17, lines 6-11. Explain why this revision does not require a change to the Rider FAC tariff given the fact that the tariff outlines how the Rider FAC rate will be calculated.

RESPONSE:

If the Commission were to approve the Company's proposal to use 12-month rolling averages for fuel expense and sales, a change to the tariff would be required. Please see STAFF-DR-02-157 Attachment.

PERSON RESPONSIBLE:

William Don Wathen Jr.
Jeff L. Kern

Duke Energy Kentucky
1262 Cox Road
Erlanger, Kentucky 41018

RIDER FAC

FUEL ADJUSTMENT CLAUSE

APPLICABLE

In all territory service.

AVAILABILITY OF SERVICE

This schedule is a mandatory rider to all electric rate schedules.

- (1) The monthly amount computed under each of the rate schedules to which this fuel clause is applicable shall be increased or (decreased) at a rate per kilowatt-hour of monthly consumption in accordance with the following formula:

$$\text{Fuel Cost Adjustment} = \frac{F(m)}{S(m)} - \$0.023837 \text{ per kWh}$$

Where F is the expense of fuel for the rolling 12 months average ending the second preceding month and S is the sales for the rolling 12 months average ending the second preceding month, as defined below:

(T)
(T)

- (2) Fuel costs (F) shall be the cost of:
- (a) Fossil fuel consumed in the Company's plants plus the cost of fuel which would have been used in plants suffering forced generation or transmission outages, but less the cost of fuel related to substitute generation, plus
 - (b) The actual identifiable fossil and nuclear fuel costs associated with energy purchased for reasons other than identified in paragraph (c) of this subsection, but excluding the cost of fuel related to purchases to substitute for the forced outages; plus
 - (c) The net energy cost of energy purchases, exclusive of capacity or demand charges (irrespective of the designation assigned to such transaction) when such energy is purchased on an economic dispatch basis. Included therein are such costs as the charges for economy energy purchases and the charges as a result of scheduled outage, all such kinds of energy being purchased by the Company to substitute for its own higher cost energy, and less
 - (d) The cost of fossil fuel recovered through inter-system sales including the fuel costs related to economy energy sales and other energy sold on an economic dispatch basis.

Issued by authority of an Order of the Kentucky Public Service
Commission dated _____ in Case No. 2019-00271.

Issued: September 3, 2019

Effective: October 3, 2019

Issued by Amy B. Spiller, President /s/ Amy B. Spiller

Duke Energy Kentucky
1262 Cox Road
Erlanger, Kentucky 41018

KY. P.S.C. Electric No. 2
Ninth Revised Sheet No. 80
Cancels and Supersedes
Eighth Revised Sheet No. 80
Page 2 of 2

AVAILABILITY OF SERVICE (Contd.)

(e) The native portion of fuel-related costs charged to the Company by PJM Interconnection LLC including but not limited to those costs identified in the following Billing Line Items, as may be amended from time to time by PJM Interconnection LLC: Billing Line Items 1210, 2210, 1215, 1218, 2217, 2218, 1230, 1250, 1260, 2260, 1370, 2370, 1375, 2375, 1400, 1410, 1420, 1430, 1478, 1340, 2340, 1460, 1350, 2350, 1360, 2360, 1470, 1377, 2377, 1480, 1378, 2378, 1490, 1500, 2420, 2220, 1200, 1205, 1220, 1225, 2500, 2510, 1930, 2211, 2215, 2415 and 2930. ~~(N)~~
~~(N)~~
~~(N)~~
~~(N)~~
~~(N)~~
~~(N)~~

(f) All fuel costs shall be based on a weighted-average inventory costing. The cost of fossil fuel shall include no items other than the invoice price of fuel less any cash or other discounts. The invoice price of fuel includes the cost of fuel itself and necessary charges for transportation of fuel from the point of acquisition to the unloading point, as listed in Account 151 of the FERC Uniform System of Accounts for Public Utilities and Licensees.

(g) As used herein, the term "forced outages" means all non-scheduled losses of generation or transmission which require substitute power for a continuous period in excess of six (6) hours. Where forced outages are not as a result of faulty equipment, faulty manufacture, faulty design, faulty installations, faulty operation, or faulty maintenance, but are Acts of God, riot, insurrection, or acts of the public enemy, then the Company may, upon proper showing, with the approval of the Commission, include the fuel cost of substitute energy in the adjustment.

(3) Sales (S) shall be determined in kilowatt-hours as follows:

Add:

- (a) net generation
- (b) purchases
- (c) interchange in

Subtract:

- (d) inter-system sales including economy energy and other energy sold on an economic dispatch basis.
- (e) total system losses

Issued by authority of an Order of the Kentucky Public Service
Commission dated _____ in Case No. 2019-00271.

Issued: September 3, 2019

Effective: October 3, 2019

Issued by Amy B. Spiller, President /s/ Amy B. Spiller

REQUEST:

Refer to the Wathen Testimony, Attachment WDW-1, and Duke Kentucky's monthly Environmental Surcharge report format ES Form 3.00.

- a. Explain why Duke Kentucky's proposed FAC reporting formats only report the 12-month average and not the monthly inputs.
- b. Assume that an error, which affects the 12-month average, is discovered outside of a six-month or two-year review. Explain whether, and if so, how Duke Kentucky would alter its reporting formats and formulas to show corrections to the 12-month average.

RESPONSE:

- a. Duke Energy Kentucky will provide monthly data as worksheets for all months included in the twelve-month average calculation.
- b. The Company is not proposing to alter the Commission's current process for the six-month or biennial FAC review. To the extent an error is identified in those reviews, appropriate adjustments would be made to correct FAC.

PERSON RESPONSIBLE: William Don Wathen Jr.

REQUEST:

Refer to the Wathen Testimony, page 19, lines 15-20.

- a. Identify what, if any, portion of the revenue generated from selling ancillary services derived from Duke Kentucky's proposed battery storage pilot into PJM's wholesale market Duke Kentucky contends would be "[f]uel costs (F)" as that term is used in 807 KAR 5:056, Section 1(3), and explain each basis for the response.
- b. Identify what, if any, portion of the costs incurred in operating the proposed battery storage pilot or selling ancillary services derived from the proposed battery storage pilot into PJM's wholesale market Duke Kentucky contends would be "[f]uel costs (F)" as that term is used in 807 KAR 5:056, Section 1(3), and explain each basis for the response.
- c. Describe the revenue and expense items arising from Duke Kentucky's participation in the PJM market, if any, that Duke Kentucky currently recovers through its Rider FAC other than those PJM billing line items identified in Duke Kentucky's Rider FAC.

RESPONSE:

- a. The proposed battery would be capable of providing the following ancillary services, are included in 807 KAR 5:056 Section 1, and credited to customers in the Company's Fuel Adjustment Clause:

- Regulation and Frequency Response Service Reserves (BLI 2340): The vast majority of the ancillary services revenues produced by the project are expected to be from the supply of regulation reserves.
- Synchronized Reserve (BLI 2360): The project also could receive credits related to the supply of synchronized reserve, but this is expected to be very small in comparison to the supply of Regulation and Frequency Response reserves.

The battery would also be capable of providing the following ancillary service that is not included in 807 KAR 5:056 Section 1 and not credited to customers in the Company's fuel adjustment clause:

- Day-Ahead Scheduling Reserve (BLI 2365): The project could be capable of supplying Day-Ahead Scheduling Reserves. However, in order to provide this service, the Company would have to request that the resource be included in calculation of DASR. This credit is currently allocated through the company's Profit Sharing Mechanism.

Note that the types of ancillary reserves provided can vary slightly dependent on the registration, and since a decision has not been made regarding this proposed units registration, the actual types of ancillary services provided could change slightly. In addition, as PJM rules change around energy storage devices, the ancillary services received could change. However, the settlements for another similar battery project were examined and 100% of the ancillary services credits resulted from the sale of regulation and frequency response service. Also note that PJM does allow for a regulation only registration.

b. The majority of the charges associated with operation of the proposed battery project would consist of the cost to provide energy to the battery and be considered a fuel cost (BLI's 1200, 1210, 1220, 1205, 1215, and 1225). In addition, other PJM billing line items that are much smaller in size would be charged to the project and identified below.

- Day-Ahead Spot Market Energy, Transmission Congestion, and Transmission Losses (BLI 1200, BLI 1210, and BLI 1220): Fuel Cost – Consistent with how off-line auxiliary energy consumption is treated for the Company's other generating units, the proposed battery projects auxiliary energy usage would be allocated to customers in the fuel adjustment clause. In addition, the positive generation from the proposed battery would be allocated 100% to native load.
- Balancing Spot Market Energy, Transmission Congestion, and Transmission Losses (BLI 1205, BLI 1215, and BLI 1225): Fuel Cost – Consistent with how off-line auxiliary energy consumption is treated for the Company's other generating units, the proposed battery projects auxiliary energy usage would be allocated to customers in the fuel adjustment clause. In addition, the positive generation from the proposed battery would be allocated 100% to native load.
- PJM Scheduling, System Control and Dispatch Service - Market Support (BLI 1303): Base Rates
- PJM Settlement, Inc. (BLI 1313): Base Rates
- Market Monitoring Unit (MMU) Funding (BLI 1314): Base Rates

- PJM Scheduling, System Control and Dispatch Service - Regulation Market
Administration (BLI 1304): Base Rates

c. Expenses related to PJM Billing Line Item 1999

PERSON RESPONSIBLE: William Don Wathen Jr.

**Duke Energy Kentucky
Case No. 2019-00271
Staff's Second Set Data Requests
Date Received: October 11, 2019**

STAFF-DR-02-160

REQUEST:

Refer to the Wathen Testimony, page 20. Explain how the amortization of the regulatory assets was treated in the base period and the forecasted test period.

RESPONSE:

Amortization expense for the Base and Forecasted Test Period associated with the regulatory assets is reflected in "Other Expenses" on Schedule C-2, line 21.

PERSON RESPONSIBLE: Sarah E. Lawler

**Duke Energy Kentucky
Case No. 2019-00271
Staff's Second Set Data Requests
Date Received: October 11, 2019**

STAFF-DR-02-161

REQUEST:

Refer to the Wathen Testimony, page 20, line 9 through page 21, line 10. Provide the amount in the deferral for planned outages and annual expenses for replacement power not recovered in the Rider FAC as of the most recent historical month.

RESPONSE:

Balances as of September 30, 2019 are as follows:

Deferred Replacement Power not Recovered in FAC	\$ 342,500
Deferred Plant Outage Normalization	\$2,066,087

PERSON RESPONSIBLE: Danielle Weatherston

REQUEST:

Refer to the Direct Testimony of Danielle L. Weatherston (Weatherston Testimony), page 7, lines 1-5. Explain why a carrying charge of Duke Kentucky's cost of long-term debt is appropriate for the proposed deferral of major storm restoration expenses above or below the amount included in base rates. Include in the explanation any prior examples of Duke Kentucky or any investor-owned utility that has been authorized to accrue carrying costs on storm damage restoration deferrals.

RESPONSE:

Inclusion of a carrying charge will ensure both the customer and the Company is adequately compensated for the time value of money. Further, the use of the long-term debt rate is appropriate as it reflects the cost to finance the asset or liability in between periods of collection. There are examples in which the Kentucky Public Service Commission ("the Commission") has supported the inclusion of carrying costs as part of regulatory assets. For instance, in its order dated December 15, 2015 in Case No. 2015-00187, in which the Commission approved the Company's request for approval for a regulatory asset for the liabilities associated with the ash pond asset retirement obligation, the Commission ordered that:

"The accounting treatment requested by Duke Kentucky to defer appropriate carrying charges on its unamortized CCR Compliance Regulatory Asset, as described herein is approved for 2015 and subsequent years."

The Commission has recognized that the time value of money represents a true cost to the utility and that it is appropriate to include such costs in regulatory assets or liabilities.

PERSON RESPONSIBLE: Sarah E. Lawler

**Duke Energy Kentucky
Case No. 2019-00271
Staff's Second Set Data Requests
Date Received: October 11, 2019**

STAFF-DR-02-163

REQUEST:

Refer to the Weatherston Testimony, page 7. Explain why a carrying charge of Duke Kentucky's cost of long-term debt is appropriate for the proposed deferral of O&M costs associated with the proposed EV Pilot programs. Include in the explanation a discussion of whether, and if so, how, Duke Kentucky proposes to include revenues or expenses from the EV Pilot programs in Rider PSM.

RESPONSE:

The inclusion of carrying costs as part of the proposed deferral of O&M costs associated with the proposed EV Pilot programs is necessary to ensure that Duke Energy Kentucky ("the Company") receives compensation for the time value of not recovering the costs of the EV Pilot program earlier. The use of the long-term debt rate approved in this proceeding is appropriate, as it reflects the cost to the Company to finance the regulatory asset between the period the expenses were incurred and recovery in rates.

See response to STAFF-DR-02-068, STAFF-DR-02-090(a) and STAFF-DR-02-091(a). The revenues generated from the Fast Charge Fee in the EV Fast Charging Station Program portion of the EV Pilot are the only revenues that would be generated in the EV Pilot. These revenues would be netted with any O&M costs and the net revenues would be recorded as a credit in Rider PSM. See Attachment SEL-1 to the direct testimony of Company witness Ms. Sarah E. Lawler.

PERSON RESPONSIBLE: Sarah E. Lawler

**Duke Energy Kentucky
Case No. 2019-00271
Staff's Second Set Data Requests
Date Received: October 11, 2019**

STAFF-DR-02-164

REQUEST:

Refer to the Direct Testimony of James E. Ziolkowski (Ziolkowski Testimony), page 6, line 14. Mr. Ziolkowski recommends adopting the Average 12 Coincident Peak methodology over the Average and Excess methodology and Production Stacking methodology. Explain if Duke Kentucky would consider blending the three demand methodologies.

RESPONSE:

The Company is amenable to blending the three demand methodologies.

PERSON RESPONSIBLE: James E. Ziolkowski

REQUEST:

Refer to the Ziolkowski Testimony, page 16, lines 4-10, discussing the technical and regulatory barriers to Duke Kentucky's ability to bill all customers based on demand. In the absence of any technical barriers (i.e., residential customers having demand meters), identify the regulatory barriers that would inhibit Duke Kentucky from proposing a three-part rate that would include the following components: demand, energy, and customer.

RESPONSE:

There are no regulatory barriers that would *prevent* Duke Energy Kentucky from proposing a residential three-part rate that includes a demand charge. The regulatory barrier that might *inhibit* the Company from proposing such a rate is the Company's perception of how the proposal would be received by the Commission and other parties.

Residential customers historically have been billed under two-part rates that include customer and energy charges. I believe that this occurred because demand meters were more expensive than kWh meters in the past, and because the residential class is homogenous (with a small number of outliers in terms of size and usage patterns).

Three-part residential rates (with customer, energy, and demand components) result in load factor becoming an important issue for residential customers. To manage their electric costs, residential customers need to understand concepts such as energy, peak

demand, peak demand reduction, and load factor. Most residential customers are not familiar with these concepts.

In summary, the barrier to implementing residential demand charges relates to residential customer knowledge about load factor and demand, possible adverse customer bill impacts, and the perceived willingness of the Commission and interveners to accept residential demand charges.

PERSON RESPONSIBLE: James E. Ziolkowski

REQUEST:

Refer to the Ziolkowski Testimony, page 19, lines 12-15.

- a. Explain why the minimum size method was used to allocate poles, conductors, and transformers rather than the zero-intercept method.
- b. Provide the zero-intercept model for each property class.

RESPONSE:

- a. The Company used the minimum size method for poles, conductors, and transformers because this method is easy to understand and requires less data than the zero-intercept method. The zero-intercept approach requires a large amount of data, and it can sometimes produce statistically unreliable results. In some cases, the regression equation will intercept the Y-axis at a negative value. The analyst can change the Y-intercept to a positive value by manipulating the data on which the regression equation is based, but this results in a questionable result in my opinion. Lastly, the Company used the minimum size method in its last two base rate case filings.
- b. The Company does not have sufficient data in the proper form and detail to prepare the zero-intercept models. As a result, the Company cannot provide the models in response to this data request.

PERSON RESPONSIBLE: James E. Ziolkowski

STAFF-DR-02-167

REQUEST:

Refer to the Ziolkowski Testimony, page 25, lines 18-20. Duke Kentucky states that the proposed rate increase for the water pumping rate class was added to the proposed revenues for Rate DS.

- a. Explain why Duke Kentucky placed this rate increase on Rate DS.
- b. According to the WP FR-16(7)(v), the water pump rate class is being subsidized. Explain why Duke Kentucky is not proposing to reevaluate these special contracts.

RESPONSE:

- a. The Company placed much of the rate increase for the water pumping class in the Rate DS proposed revenues to follow the concept of gradualism. The inclusion of the water pumping revenues in the DS class will have an immaterial impact on the Rate DS rates because of the size of the class. Without this subsidy, the water pumping class would see a very large increase under the proposed rates.
- b. The contracts are associated with entities that provide critical water pumping utility services for the citizens of northern Kentucky. The contracts have existed for many years, and the Company would be amenable to reevaluating the contracts.

PERSON RESPONSIBLE: James E. Ziolkowski

Duke Energy Kentucky
Case No. 2019-00271
Staff's Second Set Data Requests
Date Received: October 11, 2019

PUBLIC STAFF-DR-02-168
(As to Attachment only)

REQUEST:

a. Confirm that Duke Kentucky has not included any penalty payments, as recorded in FERC account 426.3, in the operating expenses included in its forecasted test year. If this cannot be confirmed, provide the location and amounts of any penalty payments, as recorded in FERC account 426.3, in the operating expenses included in its forecasted test year.

b. Refer Duke Kentucky's response to Staff First Data Request, Item 54, Staff-DR-01-054_Attachment_-_JLK3.xlsx.

- (1) Provide support for the real discount rate of 5.18 percent.
- (2) Provide support for the After-Tax WACC of 6.52 percent.
- (3) Provide support for the 2.50 percent inflation rate.
- (4) Regarding the LFCF (EOY Convention):
 - (a) Explain what LFCR represents.
 - (b) Provide support for the Nominal LFCR calculation of 8.47 percent.
- (5) Provide support for the LFCR (EOY Convention) calculation of 7.23 percent.
- (6) Provide support for the 2018 CT Direct and AFUDC costs of \$614.20.
- (7) Provide support for the Fixed O&M of \$3.59.

- (8) Provide a revised Excel spreadsheet with supporting calculations and all formulas unprotected and all rows and columns fully accessible.

RESPONSE:

CONFIDENTIAL PROPRIETARY TRADE SECRET (As to Attachment only)

- a. Confirmed. Duke Energy Kentucky has not included any penalty payments, as recorded in FERC account 426.3, in the operating expenses included in its forecasted test year.
- b.
- (1) The real discount rate reflects the nominal discount rate adjusted to remove inflation consistent with the technology-specific inflation rate. This was calculated as $(1+0.0652)/(1+0.0127) - 1 = 0.0518$ or 5.18%.
- (2) Please see table below. The After-Tax WACC is adjusted for combined state and federal tax of 25.12%.

	Rate	Portion %	Nominal WACC	After-Tax WACC
Debt	4.55%	50.75%	2.31%	1.73%
Common Equity	9.725%	49.25%	4.79%	4.79%
		100.00%	7.10%	6.52%

- (3) 2.5% is the Company's standard inflation rate.
- (4) (a) Levelized Fixed Charge Rate (LFCR) represents the uniform annual revenue that provides for full recovery of the capital investment over the assumed life of the asset, while providing for return on the unrecovered balance consistent with the weighted average cost of capital, and recovery of associated property taxes and insurance.

- (b) This was calculated as the Equivalent Uniform Annual Revenue Requirement of 47,239 divided by the Cumulative Closed to Plant (Gross Plant) of 557,424 which equals 8.47%.
- (5) The LFCR (EOY convention) was calculated utilizing Excel formulas for Present Value (PV) and payments (PMT). The inputs are the Real LT Discount Rate described in b(1), the Nominal LFCR described in b(4)(b), the After Tax Weighted Average Cost of Capital described in b(2) and a term of 35 years. The formula is $=PMT(0.0518,35,PV(0.0652,35,0.0847)) = 0.0723$.
- (6) The total costs of construction expenditures (\$513,426,000), AFUDC Debt (\$13,554,000), and AFUDC Equity (\$27,493,000) divided by the MW capacity of the asset (858,000 kW) from the 2018 Generic Unit Characteristic Study and Fixed Charge Rate Model, inflated from 2020 back to 2018 dollars.
- (7) The 2018 Generic Unit Characteristics study found for this CT asset, the Fixed O&M to be \$3.51 in 2017 dollars. This number was inflated by the company's standard inflation rate of 2.5% to 2018 dollars.
- (8) Please see STAFF-DR-02-168(b)(8) Confidential Attachment.

PERSON RESPONSIBLE: Sarah E. Lawler – a.
Jeff L. Kern – b.

**CONFIDENTIAL PROPRIETARY TRADE
SECRET**

**STAFF-DR-02-168 CONFIDENTIAL
ATTACHMENT**

FILED UNDER SEAL

REQUEST:

Refer to Duke Kentucky's response to Staff's First Request, Item 54, STAFF-DR-01-054_Attachment_-_KPSC_Elec_SFRs_-_2019.xlsx at tab "WPB-6's."

- a. Describe the timing differences that resulted in the deferred tax assets reflected in Account 190 on line 144 of the spreadsheet.
- b. Describe the timing differences that resulted in the deferred tax liabilities reflected in Account 282 on line 146 of the spreadsheet.
- c. Describe the timing differences that resulted in the deferred tax liabilities identified as "Liberalized Depreciation" on line 147 of the spreadsheet, and explain why those deferred tax liabilities are represented separately from other liabilities recorded in Account 282 as shown on line 146 of the spreadsheet.
- d. Describe the timing differences that resulted in the deferred tax liabilities reflected in Account 283 on line 148 of the spreadsheet.
- e. Confirm that "March 2018" as stated in column F, lines 95 and 96 of the spreadsheet should state "March 2020," and if it cannot be confirmed, explain why.
- f. Explain how Duke Kentucky performed its pro-rata calculations shown on lines 151 through 154 and lines 161 through 164 of the spreadsheet.

- g. Explain why Duke Kentucky contends that its pro-rata calculations shown on lines 151 through 154 and lines 161 through 164 of the spreadsheet are consistent with the normalization requirements of 26 U.S.C.A. § 168 and 26 C.F.R. § 1.167(I)-1.

RESPONSE:

- a. Please see STAFF-DR-02-169 Attachment at tab "169(a)."
- b. The Account 282 balance is made up of the difference between net book values and net tax values. This difference can be categorized into 2 types. First you have the difference between depreciation methods and depreciation lives. Book depreciation generally uses a straight-line method while tax will often use accelerated methods such as MACRS. In addition, the depreciable lives are different between book and tax. The second category of deferred taxes relates to any basis differences between the total gross book cost of an asset and the total gross cost of the tax assets. There are many differences that exist and those differences have accumulated over very many years until the assets gets fully depreciated to have a net value of zero. Examples of basis differences include AFUDC, CIAC, Tax Repairs, and Tax Interest Capitalized.
- c. This line item included the difference between the forecasted book depreciation amount and the forecasted tax depreciation amount.
- d. Please see STAFF-DR-02-169 Attachment at tab "169(d)."
- e. Staff's First Request, Item 54, STAFF-DR-01-054 Attachment – KPSC Elec SFRs – 2019 at tab "WPB-6's." in column F, lines 95 and 96 of the spreadsheet should state "March 2020".

- f. Duke Energy Kentucky performed its pro-rata calculations based on the examples prescribed in Treas. Reg. §1.167(l)-1(h)(6)(iv) (see STAFF-DR-02-169(f) Attachment).
- g. Proration was used as prescribed in Treas. Reg. §1.167(l)-(h)(6)(ii). Specifically, if solely a future period is used for the test period, the amount of the reserve account to be excluded from the rate base for the period is the amount of the reserve at the beginning of the period and a pro rata portion of the amount of any projected increase to be credited or decrease to be charged to the account during such period.

PERSON RESPONSIBLE: John Panizza

DUKE ENERGY KENTUCKY, INC.
 CASE NO. 2019-00271
 CERTAIN DEFERRED CREDITS AND ACCUMULATED DEFERRED INCOME TAXES

Code	Name	BASE PERIOD - FORECAST											
		Actuals - May 2019 Ending Balance	Jun 2019 Current Activity	Jul 2019 Current Activity	Aug 2019 Current Activity	Sept 2019 Current Activity	Oct 2019 Current Activity	Nov 2019 Current Activity	Dec 2019 Current Activity	Jan 2020 Current Activity	Feb 2020 Current Activity	Mar 2020 Current Activity	Mar-20 Ending Balance
1900012	ADIT: Prepaid: Taxes												
AT_OTH_190_NC_EPRI_Credit	Other Noncurrent After-tax DTA for EPRI Credit	216,346											216,346
AT_OTH_190_NC_R&D_CREDIT	Other Noncurrent After-Tax DTA for R&D Credit	879,520	1,893	1,893	1,893	1,893	1,893	1,893	1,893	1,949	1,949	1,949	898,616
AT_OTH_190_NC_Solar_ITC	Other Noncurrent After-tax DTA for Solar ITC	3,017,307											3,017,307
F_ITC_190002-411055	ITC Amortization - Non Utility	0											0
T11A02	Bad Debts - Tax over Back	70,274	-	-	-	-	-	-	-	-	-	-	70,274
T11B08	Surplus Materials Write-Off Asset	7,478	-	-	-	-	-	-	-	-	-	-	7,478
T11B16	OFFSITE GAS STORAGE COSTS	0	-	-	-	-	-	-	-	-	-	-	0
T13B19	Leased Meters - Elec & Gas	4,200	-	-	-	-	-	-	-	-	-	-	4,200
T15A22	Mark to Market - LT	1,838	-	-	-	-	-	-	-	-	-	-	1,838
T15A95	Unamortized Debt Premium	(8,697)	-	-	-	-	-	-	-	-	-	-	(8,697)
T15B07	Cash Flow Hedge - Reg Asset/Liab	276,611	-	-	-	-	-	-	-	-	-	-	276,611
T17A02	Accrued Vacation	450,495	-	-	-	-	-	-	-	-	-	-	450,495
T17A40	SEVERANCE RESERVE - LT	25,513	-	-	-	-	-	-	-	-	-	-	25,513
T17A54	MGP Sites	0	-	-	-	-	-	-	-	-	-	-	0
T17A54	Deferred Revenue	104,406	-	-	-	-	-	-	-	-	-	-	104,406
T19A02	Miscellaneous NC Taxable Income Adj - DTA	476,297	-	-	-	-	-	-	-	-	-	-	476,297
T19A22	GAS SUPPLIER REFUNDS	0	-	-	-	-	-	-	-	-	-	-	0
T19A89	UNBILLED REVENUE - FUEL	0	-	-	-	-	-	-	-	-	-	-	0
T19A94	Rate Refunds	(121,934)	-	-	-	-	-	-	-	-	-	-	(121,934)
T20A41	Reg Liability - Rate Case Expense - Amortization - NC	663,911	-	-	-	-	-	-	-	-	-	-	663,911
T20A54	Demand Side Management (DSM) Defer	632,806	-	-	-	-	-	-	-	-	-	-	632,806
T20C02	Emission Allowance Expense	(6,082)	-	-	-	-	-	-	-	-	-	-	(6,082)
T22A01	Operating Lease Obligation	2,341,678	-	-	-	-	-	-	-	-	-	-	2,341,678
T22A06	Charitable Contribution Carryover	30,521	-	-	-	-	-	-	-	-	-	-	30,521
T22A07	Lease Interest Expense	8,487	-	-	-	-	-	-	-	-	-	-	8,487
T22A13	Retirement Plan Expense - Underfunded	2,802,664	2,331	2,331	2,331	2,331	2,331	2,331	2,331	2,197	2,197	2,197	2,825,371
T22A28	Non-qualified Pension - Accrual	22,735	-	-	-	-	-	-	-	-	-	-	22,735
T22A29	Environmental Reserve	(17,098)	-	-	-	-	-	-	-	-	-	-	(17,098)
T22A36	DO NOT USE - Joint Owner Pension Receivable-NC	0	-	-	-	-	-	-	-	-	-	-	0
T22A71	ANNUAL INCENTIVE PLAN COMP	17,620	-	-	-	-	-	-	-	-	-	-	17,620
T22B13	PAYABLE 401 (K) MATCH	2,840	-	-	-	-	-	-	-	-	-	-	2,840
T22B15	OPEB Expense Accrual	767,856	-	-	-	-	-	-	-	-	-	-	767,856
T22E02	FAS 112 Medical Expenses Accrual	248,832	-	-	-	-	-	-	-	-	-	-	248,832
T22E06													
total 1900012		12,916,225	4,223	4,223	4,223	4,223	4,223	4,223	4,223	4,147	4,147	4,147	12,958,228
90155	Deferred Tax - NOL												
AT_OTH_190_NC_Federal_NOL	190155 Other NC Federal NOLs	6,856,390	-	-	-	-	-	-	-	-	-	-	6,856,390
total 190155		6,856,390	-	-	0	0	0	0	0	0	0	0	6,856,390
90156	Deferred Tax - State NOLs												
AT_OTH_190_KY_STATE_NOL	Other KY State NOLs	34,725	-	-	-	-	-	-	-	-	-	-	34,725
total 190156		34,725	-	-	0	0	0	0	0	0	0	0	34,725
ccount 190		19,807,340	4,223	4,223	4,223	4,223	4,223	4,223	4,223	4,147	4,147	4,147	19,849,343

DUKE ENERGY KENTUCKY, INC.
 CASE NO. 2019-00271

Code	Name	BASE PERIOD - FORECAST											
		Actuals - May 2019	Jun 2019	Jul 2019	Aug 2019	Sept 2019	Oct 2019	Nov 2019	Dec 2019	Jan 2020	Feb 2020	Mar 2020	Mar-20
		Ending Balance	Current Activity	Current Activity	Current Activity	Current Activity	Current Activity	Current Activity	Current Activity	Current Activity	Current Activity	Current Activity	Ending Balance
283100/1	ADIT: Other												
T15A24	Loss on Reacquired Debt-Amort	(183,236)	3,874	2,899	2,899	2,899	2,899	2,899	2,899	2,899	2,899	2,899	(153,267)
T15B02	Reg Asset/Liab Def Revenue	(790,560)	-	-	-	-	-	-	-	-	-	-	(790,560)
T15B04	Reg Asset - Accr Pension FAS158 - FAS87Qual	1	-	-	-	-	-	-	-	-	-	-	1
T15B17	Reg Liab RSLI & Other Misc Dfd Costs	143,923	-	-	-	-	-	-	-	-	-	-	143,923
T15B18	Reg Asset Storm Damage Recovery	(714,287)	-	-	-	-	-	-	-	-	-	-	(714,287)
T15B28	Reg Asset - Rate Case Expense	(66,898)	-	-	-	-	-	-	-	-	-	-	(66,898)
T15B29	Reg Asset-Pension Post Retirement PAA-FAS87Qual and Oth	(5,602,082)	-	-	-	-	-	-	-	-	-	-	(5,602,082)
T15B35	Regulatory Asset - Carbon Management	(290,790)	-	-	-	-	-	-	-	-	-	-	(290,790)
T15B37	Reg Asset-Pension Post Retirement PAA-FAS87NQ and Oth	(11,415)	-	-	-	-	-	-	-	-	-	-	(11,415)
T15B38	Reg Asset-Pension Post Retirement PAA-FAS 106 and Oth	(356,782)	-	-	-	-	-	-	-	-	-	-	(356,782)
T15B40	Reg Asset - Accr Pension FAS158 - FAS87NQ	922,302	-	-	-	-	-	-	-	-	-	-	922,302
T15B41	Reg Asset - Accr Pension FAS158 - FAS 106/112	2,850	-	-	-	-	-	-	-	-	-	-	2,850
T15B43	Reg Asset - Transition from MISO to PJM	3,666,482	-	-	-	-	-	-	-	-	-	-	3,666,482
T15B45	Reg Asset - Plant Related Retirements	(0)	-	-	-	-	-	-	-	-	-	-	(0)
T15B69	Reg Asset Opt Out Tariff IT Modifications	(22,856)	-	-	-	-	-	-	-	-	-	-	(22,856)
T15B77	Non-AMI Meters Retired Early - NBV	(1,308,623)	-	-	-	-	-	-	-	-	-	-	(1,308,623)
T15B81	Reg Asset_Liab - Outage Costs	(600,343)	-	-	-	-	-	-	-	-	-	-	(600,343)
T17A01	Vacation Carryover - Reg Asset	(255,292)	-	-	-	-	-	-	-	-	-	-	(255,292)
T20A38	Regulatory Asset - Deferred Plant Costs	(10,747,107)	93,261	93,261	93,261	93,261	93,261	93,261	93,261	93,261	93,261	93,261	(9,814,493)
T20A40	Non-Current Portion of Reg Asset	0	-	-	-	-	-	-	-	-	-	-	0
T22A15	Operating Lease Deferral	(9,250)	-	-	-	-	-	-	-	-	-	-	(9,250)
T22A23	Retirement Plan Expense - Overfunded	(1,282,235)	-	-	-	-	-	-	-	-	-	-	(1,282,235)
T22B16	Miscellaneous NC Taxable Income Adj - DTL	(749,426)	-	-	-	-	-	-	-	-	-	-	(749,426)
Total 283100/1		(18,255,623)	97,135	96,160	96,161	96,161	96,161	96,161	96,161	96,161	96,161	96,161	(17,293,040)
As per WPB-6													(17,293,040)
Variance													(0)

75															
76	Accumulated Deferred Income Taxes:														
77	190 Total Account 190	(237,890)	(237,890)	(237,890)	(237,890)	(237,890)	(237,890)	(237,890)	(237,890)	(237,890)	(237,890)	(237,890)	(237,890)	(3,092,570)	(237,890)
78	282 Total Account 282	2,224,586	2,203,618	2,178,893	2,152,314	2,123,283	2,089,815	2,052,871	2,011,701	1,972,485	1,945,885	1,925,843	1,903,328	1,878,808	26,962,909
79	282 Liberalized Depreciation	(27,467,954)	(27,308,054)	(27,148,154)	(26,988,255)	(26,828,355)	(26,668,455)	(26,508,556)	(26,348,656)	(26,188,757)	(26,028,857)	(25,868,957)	(25,709,058)	(25,549,158)	(344,811,226)
80	283 Total Account 283	0	0	0	0	0	0	0	0	0	0	0	0	0	0
81	Total Deferred Income Taxes	(25,481,258)	(25,342,326)	(25,207,151)	(25,073,831)	(24,942,962)	(24,816,430)	(24,693,575)	(24,574,845)	(24,454,162)	(24,321,082)	(24,181,204)	(24,043,816)	(23,908,442)	(321,040,887)
82															
83	Monthly Change ADIT	138,932	135,175	133,320	130,869	128,532	122,855	118,730	120,683	133,080	130,878	137,585	135,177		
84	Monthly Proration	338	305	275	244	213	183	152	122	91	60	32	1		
85	Prorated 282 ADIT	127,894	112,854	100,447	87,485	73,839	61,598	49,444	40,338	33,179	22,994	12,062	370		
86	Prorated ADIT	(25,353,364)	(25,229,372)	(25,108,704)	(24,986,346)	(24,869,123)	(24,754,834)	(24,644,131)	(24,534,507)	(24,420,983)	(24,298,088)	(24,189,142)	(24,043,249)		(24,043,249)
87															
88	Regulatory Liability - Excess Deferred Taxes														
89	254 Protected														
90	254 Unprotected														
91	Total Regulatory Liability - Excess Deferred Taxes														
		(268,610,387)	(270,293,145)	(271,981,274)	(273,684,500)	(275,394,014)	(277,070,380)	(278,719,592)	(280,377,638)	(282,054,904)	(283,766,650)	(285,454,620)	(287,120,800)	(288,763,388)	(278,717,777)

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Final, Temporary & Proposed Regulations

Regs. §§ 1.165-1 thru 301.9100-18T

Reg §1.167(l)-1 Limitations on reasonable allowance in case of property of certain public utilities.

Federal Regulations

Reg § 1.167(l)-1. Limitations on reasonable allowance in case of property of certain public utilities.

Caution: The Treasury has not yet amended Reg § 1.167(l)-1 to reflect changes made by P.L. 101-508



Effective: Reg. §1.167(l)-1 has not been updated to reflect subsequent legislation.

(a) In general.

(1) *Scope.* Section 167(l) in general provides limitations on the use of certain methods of computing a reasonable allowance for depreciation under section 167(a) with respect to "public utility property" (see paragraph (b) of this section) for all taxable years for which a Federal income tax return was not filed before August 1, 1969. The limitations are set forth in paragraph (c) of this section for "pre-1970 public utility property" and in paragraph (d) of this section for "post-1969 public utility property." Under section 167(l), a taxpayer may always use a straight line method (or other "subsection (l) method" as defined in paragraph (f) of this section). In general, the use of a method of depreciation other than a subsection (l) method is not prohibited by section 167(1) for any taxpayer if the taxpayer uses a "normalization method of regulated accounting" (described in paragraph (h) of this section). In certain cases, the use of a method of depreciation other than a subsection (l) method is not prohibited by section 167(l) if the taxpayer used a "flow-through method of regulated accounting" described in paragraph (i) of this section) for its "July 1969 regulated accounting period" (described in paragraph (g) of this section) whether or not the taxpayer uses either a normalization or a flow-through method of regulated accounting after its July 1969 regulated accounting period. However, in no event may a method of depreciation other than a subsection (l) method be used in the case of pre-1970 public utility property unless such method of depreciation is the "applicable 1968 method" (within the meaning of paragraph (e) of this section). The normalization requirements of section 167(l) with respect to public utility property defined in section 167(l)(3)(A) pertain only to the deferral of Federal

income tax liability resulting from the use of an accelerated method of depreciation for computing the allowance for depreciation under section 167 and the use of straight line depreciation for computing tax expense and depreciation expense for purposes of establishing cost of services and for reflecting operating results in regulated books of account. Regulations under section 167(l) do not pertain to other book-tax timing differences with respect to State income taxes, F.I.C.A. taxes, construction costs, or any other taxes and items. The rules provided in paragraph (h)(6) of this section are to insure that the same time period is used to determine the deferred tax reserve amount resulting from the use of an accelerated method of depreciation for cost of service purposes and the reserve amount that may be excluded from the rate base or included in no-cost capital in determining such cost of services. The formula provided in paragraph (h)(6)(ii) of this section is to be used in conjunction with the method of accounting for the reserve for deferred taxes (otherwise proper under paragraph (h)(2) of this section) in accordance with the accounting requirements prescribed or approved, if applicable, by the regulatory body having jurisdiction over the taxpayer's regulated books of account. The formula provides a method to determine the period of time during which the taxpayer will be treated as having received amounts credited or charged to the reserve account so that the disallowance of earnings with respect to such amounts through rate base exclusion or treatment as no-cost capital will take into account the factor of time for which such amounts are held by the taxpayer. The formula serves to limit the amount of such disallowance.

(2) Methods of depreciation. For purposes of section 167(l), in the case of a declining balance method each different uniform rate applied to the unrecovered cost or other basis of the property is a different method of depreciation. For purposes of section 167(l), a change in a uniform rate of depreciation due to a change in the useful life of the property or a change in the taxpayer's unrecovered cost or other basis for the property is not a change in the method of depreciation. The use of "guideline lives" or "class lives" for Federal income tax purposes and different lives on the taxpayer's regulated books of account is generally not treated for purposes of section 167(l) as a different method of depreciation. Further, the use of an unrecovered cost or other basis or salvage value for Federal income tax purposes different from the basis or salvage value used on the taxpayer's regulated books of account is not treated as a different method of depreciation.

(3) Application of certain other provisions to public utility property. For rules with respect to application of the investment credit to public utility property, see section 46(e). For rules with respect to the application of the class life asset depreciation range system, including the treatment of the use of "class lives" for Federal income tax purposes and different lives on the taxpayer's regulated books of account, see § 1.167(a)-11 and § 1.167(a)-12.

(4) Effect on agreements under section 167(d). If the taxpayer has entered into an agreement under section 167(d) as to any public utility property and such agreement requires the use of a method of depreciation prohibited by section 167(l), such agreement shall terminate as to such property. The termination, in accordance with this subparagraph, shall not affect any other property (whether or not

public utility property) covered by the agreement.

(5) Effect of change in method of depreciation. If, because the method of depreciation used by the taxpayer with respect to public utility property is prohibited by section 167(l), the taxpayer changes to a method of depreciation not prohibited by section 167(l), then when the change is made the unrecovered cost or other basis shall be recovered through annual allowances over the estimated remaining useful life determined in accordance with the circumstances existing at that time.

(b) Public utility property.

(1) In general. Under section 167(1)(3)(A), property is "public utility property" during any period in which it is used predominantly in a "section 167(l) public utility activity." The term "section 167(l) public utility activity" means the trade or business of the furnishing or sale of-

(i) Electrical energy, water, or sewage disposal services,

(ii) Gas or steam through a local distribution system,

(iii) Telephone services,

(iv) Other communication services (whether or not telephone services) if furnished or sold by the Communications Satellite Corporation for purposes authorized by the Communications Satellite Act of 1962 (47 U.S.C. 701), or

(v) Transportation of gas or steam by pipeline,

if the rates for such furnishing or sale, as the case may be, are regulated, i.e., have been established or approved by a regulatory body described in section 167(l)(3)(A). The term "regulatory body described in section 167(l)(3)(A)" means a State (including the District of Columbia) or political subdivision thereof, any agency or instrumentality of the United States, or a public service or public utility commission or other body of any State or political subdivision thereof similar to such a commission. The term "established or approved" includes the filing of a schedule of rates with a regulatory body which has the power to approve such rates, even though such body has taken no action on the filed schedule or generally leaves undisturbed rates filed by the taxpayer involved.

(2) Classification of property. If property is not used solely in a section 167(l) public utility activity, such property shall be public utility property if its predominant use is in a section 167(l) public utility activity. The predominant use of property for any period shall be determined by reference to the proper accounts to which expenditures for such property are chargeable under the system of regulated

accounts required to be used for the period for which the determination is made and in accordance with the principles of §1.46-3(g)(4) (relating to credit for investment in certain depreciable property). Thus, for example, for purposes of determining whether property is used predominantly in the trade or business of the furnishing or sale of transportation of gas by pipeline, or furnishing or sale of gas through a local distribution system, or both, the rules prescribed in §1.46-3(g)(4) apply, except that accounts 365 through 371, inclusive (Transmission Plant), shall be added to the accounts enumerated in subdivision (i) of such paragraph (g)(4).

(c) Pre-1970 public utility property.

(1) Definition.

(i) Under section 167(l)(3)(B), the term "pre-1970 public utility property" means property which was public utility property at any time before January 1, 1970. If a taxpayer acquires pre-1970 public utility property, such property shall be pre-1970 public utility property in the hands of the taxpayer even though such property may have been acquired by the taxpayer in an arm's-length cash sale at fair market value or in a tax-free exchange. Thus, for example, if corporation X which is a member of the same controlled group of corporations (within the meaning of section 1563(a)) as corporation Y sells pre-1970 public utility property to Y, such property is pre-1970 public utility property in the hands of Y. The result would be the same if X and Y were not members of the same controlled group of corporations.

(ii) If the basis of public utility property acquired by the taxpayer in a transaction is determined in whole or in part by reference to the basis of any of the taxpayer's pre-1970 public utility property by reason of the application of any provision of the code, and if immediately after the transaction the adjusted basis of the property acquired is less than 200 percent of the adjusted basis of such pre-1970 public utility property immediately before the transaction, the property acquired is pre-1970 public utility property.

(2) Methods of depreciation not prohibited. Under section 167(l)(1), in the case of pre-1970 public utility property, the term "reasonable allowance" as used in section 167(a) means, for a taxable year for which a Federal income tax return was not filed before August 1, 1969, and in which such property is public utility property, an allowance (allowable without regard to section 167(l)) computed under-

(i) A subsection (l) method, or

(ii) The applicable 1968 method (other than a subsection (l) method) used by the taxpayer for such property, but only if-

(a) The taxpayer uses in respect of such taxable year a normalization method of regulated accounting for such property,

(b) The taxpayer used a flow-through method of regulated accounting for such property for its July 1969 regulated accounting period, or

(c) The taxpayer's first regulated accounting period with respect to such property is after the taxpayer's July 1969 regulated accounting period and the taxpayer used a flow-through method of regulated accounting for its July 1969 regulated accounting period for public utility property of the same kind (or if there is no property of the same kind, property of the most similar kind) most recently placed in service. See paragraph (e)(5) of this section for determination of same (or similar) kind.

(3) *Flow-through method of regulated accounting in certain cases.* See paragraph (e)(6) of this section for treatment of certain taxpayers with pending applications for change in method of accounting as being deemed to have used a flow-through method of regulated accounting for the July 1969 regulated accounting period.

(4) *Examples.* The provisions of this paragraph may be illustrated by the following examples:

Example (1). Corporation X, a calendar-year taxpayer subject to the jurisdiction of a regulatory body described in section 167(l)(3)(A), used the straight line method of depreciation (a subsection (l) method) for all of its public utility property for which depreciation was allowable on its Federal income tax return for 1967 (the latest taxable year for which X, prior to August 1, 1969, filed a return). Assume that under paragraph (e) of this section, X's applicable 1968 method is a subsection (l) method with respect to all of its public utility property. Thus, with respect to its pre-1970 public utility property, X may only use a straight line method (or any other subsection (l) method) of depreciation for all taxable years after 1967.

Example (2). Corporation Y, a calendar-year taxpayer subject to the jurisdiction of the Federal Power Commission, is engaged exclusively in the transportation of gas by pipeline. On its Federal income tax return for 1967 (the latest taxable year for which Y, prior to August 1, 1969, filed a return), Y used the declining balance method of depreciation using a rate of 150 percent of the straight-line rate for all of its nonsection 1250 public utility property with respect to which depreciation was allowable. Assume that with respect to all of such property, Y's applicable 1968 method under paragraph (e) of this section is such 150 percent declining balance method. Assume that Y used a normalization method of regulated accounting for all relevant regulated accounting periods. If Y continues to use a normalization method of regulated accounting, Y may compute its reasonable allowance for purposes of section 167(a) using such 150 percent declining balance method for its nonsection 1250 pre-1970

public utility property for all taxable years beginning with 1968, provided the use of such method is allowable without regard to section 167(l). Y may also use a subsection (l) method for any of such pre-1970 public utility property for all taxable years beginning after 1967. However, because each different uniform rate applied to the basis of the property is a different method of depreciation, Y may not use a declining balance method of depreciation using a rate of twice the straight line rate for any of such pre-1970 public utility property for any taxable year beginning after 1967.

Example (3). Assume the same facts as in example (2) except that with respect to all of its nonsection 1250 pre-1970 public utility property accounted for in its July 1969 regulated accounting period Y used a flow-through method of regulated accounting for such period. Assume further that such property is the property on the basis of which the applicable 1968 method is established for pre-1970 public utility property of the same kind, but having a first regulated accounting period after the taxpayer's July 1969 regulated accounting period. Beginning with 1968, with respect to such property Y may compute its reasonable allowance for purposes of section 167(a) using the declining balance method of depreciation and a rate of 150 percent of the straight line rate, whether it uses a normalization or flow-through method of regulated accounting after its July 1969 regulated accounting period, provided the use of such method is allowable without regard to section 167(l).

(d) Post-1969 public utility property.

(1) In general. Under section 167(l)(3)(C), the term "post-1969 public utility property" means any public utility property which is not pre-1970 public utility property.

(2) Methods of depreciation not prohibited. Under section 167(l)(2), in the case of post-1969 public utility property, the term "reasonable allowance" as used in section 167(a) means, for a taxable year, an allowance (allowable without regard to section 167(l)) computed under-

(i) A subsection (l) method,

(ii) A method of depreciation otherwise allowable under section 167 if, with respect to the property, the taxpayer uses in respect of such taxable year a normalization method of regulated accounting, or

(iii) The taxpayer's applicable 1968 method (other than a subsection (l) method) with respect to the property in question, if the taxpayer used a flow-through method of regulated accounting for its July 1969 regulated accounting period for the property of the same (or similar) kind most recently placed in service, provided that the property in question is not property to which an election under section 167(l)(4)(A) applies. See § 1.167(l)-2 for rules with respect to an election under section 167(l)(4)(A). See paragraph (e)(5) of this section for definition of same (or similar) kind.

(3) *Examples.* The provisions of this paragraph may be illustrated by the following examples:

Example (1). Corporation X is engaged exclusively in the trade or business of the transportation of gas by pipeline and is subject to the jurisdiction of the Federal Power Commission. With respect to all its public utility property, X's applicable 1968 method (as determined under paragraph (e) of this section) is the straight line method of depreciation. X may determine its reasonable allowance for depreciation under section 167(a) with respect to its post-1969 public utility property under a straight line method (or other subsection (l) method) or, if X uses a normalization method of regulated accounting, any other method of depreciation, provided that the use of such other method is allowable under section 167 without regard to section 167(l).

Example (2). Assume the same facts as in example (1) except that with respect to all of X's post-1969 public utility property the applicable 1968 method (as determined under paragraph (e) of this section) is the declining balance method using a rate of 150 percent of the straight line rate. Assume further that all of X's pre-1970 public utility property was accounted for in its July 1969 regulated accounting period, and that X used a flow-through method of regulated accounting for such period. X may determine its reasonable allowance for depreciation under section 167 with respect to its post-1969 public utility property by using the straight line method of depreciation (or any other subsection (l) method), by using any method otherwise allowable under section 167 (such as a declining balance method) if X uses a normalization method of regulated accounting, or, by using the declining balance method using a rate of 150 percent of the straight line rate, whether or not X uses a normalization or a flow-through method of regulated accounting.

(e) Applicable 1968 method.

(1) *In general.* Under section 167(l)(3)(D), except as provided in subparagraphs (3) and (4) of this paragraph, the term "applicable 1968 method" means with respect to any public utility property-

(i) The method of depreciation properly used by the taxpayer in its Federal income tax return with respect to such property for the latest taxable year for which a return was filed before August 1, 1969,

(ii) If subdivision (i) of this subparagraph does not apply, the method of depreciation properly used by the taxpayer in its Federal income tax return for the latest taxable year for which a return was filed before August 1, 1969, with respect to public utility property of the same kind (or if there is no property of the same kind, property of the most similar kind) most recently placed in service before the end of such latest taxable year, or

(iii) If neither subdivision (i) nor (ii) of this subparagraph applies, a subsection (l) method.

If, on or after August 1, 1969, the taxpayer files an amended return for the taxable year referred to in

subdivisions (i) and (ii) of this subparagraph, such amended return shall not be taken into consideration in determining the applicable 1968 method. The term "applicable 1968 method" also means with respect to any public utility property, for the year of change and subsequent years, a method of depreciation otherwise allowable under section 167 to which the taxpayer changes from an applicable 1968 method if, such new method results in a lesser allowance for depreciation for such property under section 167 in the year of change and the taxpayer secures the Commissioner's consent to the change in accordance with the procedures of section 446(e) and §1.446-1.

(2) *Placed in service.* For purposes of this section, property is placed in service on the date on which the period for depreciation begins under section 167. See, for example, § 1.167(a)-10(b) and §1.167(a)-11(c)(2). If under an averaging convention property which is placed in service (as defined in §1.46-3(d)(ii)) by the taxpayer on different dates is treated as placed in service on the same date, then for purposes of section 167(l) the property shall be treated as having been placed in service on the date the period for depreciation with respect to such property would begin under section 167 absent such averaging convention. Thus, for example, if, except for the fact that the averaging convention used assumes that all additions and retirements made during the first half of the year were made on the first day of the year, the period of depreciation for two items of public utility property would begin on January 10 and March 15, respectively, then for purposes of determining the property of the same (or similar) kind most recently placed in service, such items of property shall be treated as placed in service on January 10 and March 15, respectively.

(3) *Certain section 1250 property.* If a taxpayer is required under section 167(j) to use a method of depreciation other than its applicable 1968 method with respect to any section 1250 property, the term "applicable 1968 method" means the method of depreciation allowable under section 167(j) which is the most nearly comparable method to the applicable 1968 method determined under subparagraph (1) of this paragraph. For example, if the applicable 1968 method on new section 1250 property is the declining balance method using 200 percent of the straight line rate, the most nearly comparable method allowable for new section 1250 property under section 167(j) would be the declining balance method using 150 percent of the straight line rate. If the applicable 1968 method determined under subparagraph (1) of this paragraph is the sum of the years-digits method, the term "most nearly comparable method" refers to any method of depreciation allowable under section 167(j).

(4) *Applicable 1968 method in certain cases.*

(i)

(a) Under section 167(l)(3)(E), if the taxpayer evidenced within the time and manner specified in (b) of this subdivision (i) the intent to use a method of depreciation under section 167 (other than its applicable 1968 method as determined under subparagraph (1) or (3) of this paragraph or a

subsection (l) method) with respect to any public utility property, such method of depreciation shall be deemed to be the taxpayer's applicable 1968 method with respect to such public utility property and public utility property of the same (or most similar) kind subsequently placed in service.

(b) Under this subdivision (i), the intent to use a method of depreciation under section 167 is evidenced-

(1) By a timely application for permission for a change in method of accounting filed by the taxpayer before August 1, 1969, or

(2) By the use of such method of depreciation in the computation by the taxpayer of its tax expense for purposes of reflecting operating results in its regulated books of account for its July 1969 regulated accounting period, as established in the manner prescribed in subparagraph (g)(1) (i), (ii), or (iii) of this section.

(ii)

(a) If public utility property is acquired in a transaction in which its basis in the hands of the transferee is determined in whole or in part by reference to its basis in the hands of the transferor by reason of the application of any provision of the Code, or in a transfer (including any purchase for cash or in exchange) from a related person, then in the hands of the transferee the applicable 1968 method with respect to such property shall be determined by reference to the treatment in respect of such property in the hands of the transferor.

(b) For purposes of this subdivision (ii), the term "related person" means a person who is related to another person if either immediately before or after the transfer-

(1) The relationship between such persons would result in a disallowance of losses under section 267 (relating to disallowance of losses, etc., between related taxpayers) or section 707(b) (relating to losses disallowed, etc., between partners and controlled partnerships) and the regulations thereunder, or

(2) Such persons are members of the same controlled group of corporations, as defined in section 1563(a) (relating to definition of controlled group of corporations), except that "more than 50 percent" shall be substituted for "at least 80 percent" each place it appears in section 1563(a) and the regulations thereunder.

(5) *Same or similar.* The classification of property as being of the same (or similar) kind shall be made

by reference to the function of the public utility to which the primary use of the property relates. Property which performs the identical function in the identical manner shall be treated as property of the same kind. The determination that property is of a similar kind shall be made by reference to the proper account to which expenditures for the property are chargeable under the system of regulated accounts required to be used by the taxpayer for the period in which the property in question was acquired. Property, the expenditure for which is chargeable to the same account, is property of the most similar kind. Property, the expenditure for which is chargeable to an account for property which serves the same general function, is property of a similar kind. Thus, for example, if corporation X, a natural gas company, subject to the jurisdiction of the Federal Power Commission, had property properly chargeable to account 366 (relating to transmission plant structures and improvements) acquired an additional structure properly chargeable to account 366, under the uniform system of accounts prescribed for natural gas companies (class A and class B) by the Federal Power Commission, effective September 1, 1968, the addition would constitute property of the same kind if it performed the identical function in the identical manner. If, however, the addition did not perform the identical function in the identical manner, it would be property of the most similar kind.

(6) *Regulated method of accounting in certain cases.* Under section 167(l)(4)(B), if with respect to any pre-1970 public utility property the taxpayer filed a timely application for change in method of accounting referred to in subparagraph (4)(i) (b)(1) of this paragraph and with respect to property of the same (or similar) kind most recently placed in service the taxpayer used a flow-through method of regulated accounting for its July 1969 regulated accounting period, then for purposes of section 167(l)(1)(B) and paragraph (c) of this section the taxpayer shall be deemed to have used a flow-through method of regulated accounting with respect to such pre-1970 public utility property.

(7) *Examples.* The provisions of this paragraph may be illustrated by the following examples:

Example (1). Corporation X is a calendar-year taxpayer. On its Federal income tax return for 1967 (the latest taxable year for which X, prior to August 1, 1969, filed a return) X used a straight line method of depreciation with respect to certain public utility property placed in service before 1965 and used the declining balance method of depreciation using 200 percent of the straight line rate (double declining balance) with respect to the same kind of public utility property placed in service after 1964. In 1968 and 1970, X placed in service additional public utility property of the same kind. The applicable 1968 method with respect to the above described public utility property is shown in the following chart:

Property held in 1970	Placed in service	Method on 1967 return	Applicable 1968 method
Group 1	Before 1965	Straight line	Straight line
Group 2	After 1964 and before 1968	Double declining balance	Double declining balance
Group 3	After 1967 and before		Do

Property held in 1970	Placed in service Method on 1967 return 1969	Applicable 1968 method
Group 4	After 1968	Do

Example (2). Corporation Y is a calendar-year taxpayer engaged exclusively in the trade or business of the furnishing of electrical energy. In 1954, Y placed in service hydroelectric generators and for all purposes Y has taken straight line depreciation with respect to such generators. In 1960, Y placed in service fossil fuel generators and for all purposes since 1960 has used the declining balance method of depreciation using a rate of 150 percent of the straight line rate (computed without reduction for salvage) with respect to such generators. After 1960 and before 1970 Y did not place in service any generators. In 1970, Y placed in service additional hydroelectric generators. The applicable 1968 method with respect to the hydroelectric generators placed in service in 1970 would be the straight line method because it was the method used by Y on its return for the latest taxable year for which Y filed a return before August 1, 1969, with respect to property of the same kind (i.e., hydroelectric generators) most recently placed in service.

Example (3). Assume the same facts as in example (2), except that the generators placed in service in 1970 were nuclear generators. The applicable 1968 method with respect to such generators is the declining balance method using a rate of 150 percent of the straight line rate because, with respect to property of the most similar kind (fossil fuel generators) most recently placed in service, Y used such declining balance method on its return for the latest taxable year for which it filed a return before August 1, 1969.

(f) Subsection (l) method. Under section 167(l)(3)(F), the term "subsection (l) method" means a reasonable and consistently applied ratable method of computing depreciation which is allowable under section 167(a), such as, for example, the straight line method or a unit of production method or machine-hour method. The term "subsection (l) method" does not include any declining balance method (regardless of the uniform rate applied), sum of the years-digits method, or method of depreciation which is allowable solely by reason of section 167(b)(4) or (j)(1)(C).

(g) July 1969 regulated accounting period.

(1) In general. Under section 167(l)(3)(l), the term "July 1969 regulated accounting period" means the taxpayer's latest accounting period ending before August 1, 1969, for which the taxpayer regularly computed, before January 1, 1970, its tax expense for purposes of reflecting operating results in its regulated books of account. The computation by the taxpayer of such tax expense may be established by reference to the following:

- (i) The most recent periodic report of a period ending before August 1, 1969, required by a regulatory

body described in section 167(l)(3)(A) having jurisdiction over the taxpayer's regulated books of account which was filed with such body before January 1, 1970 (whether or not such body has jurisdiction over rates).

(ii) If subdivision (i) of this subparagraph does not apply, the taxpayer's most recent report to its shareholders for a period ending before August 1, 1969, but only if such report was distributed to the shareholders before January 1, 1970, and if the taxpayer's stocks or securities are traded in an established securities market during such period. For purposes of this subdivision, the term "established securities market" has the meaning assigned to such term in §1.453-3(d)(4).

(iii) If subdivisions (i) and (ii) of this subparagraph do not apply, entries made to the satisfaction of the district director before January 1, 1970, in its regulated books of account for its most recent accounting period ending before August 1, 1969.

(2) July 1969 method of regulated accounting in certain acquisitions. If public utility property is acquired in a transaction in which its basis in the hands of the transferee is determined in whole or in part by reference to its basis in the hands of the transferor by reason of the application of any provision of the Code, or in a transfer (including any purchase for cash or in exchange) from a related person, then in the hands of the transferee the method of regulated accounting for such property's July 1969 regulated accounting period shall be determined by reference to the treatment in respect of such property in the hands of the transferor. See paragraph (e)(4)(ii) of this section for definition of "related person".

(3) Determination date. For purposes of section 167(l), any reference to a method of depreciation under section 167(a), or a method of regulated accounting, taken into account by the taxpayer in computing its tax expense for its July 1969 regulated accounting period shall be a reference to such tax expense as shown on the periodic report or report to shareholders to which subparagraph (1)(i) or (ii) of this paragraph applies or the entries made on the taxpayer's regulated books of account to which subparagraph (1)(iii) of this paragraph applies. Thus, for example, assume that regulatory body A having jurisdiction over public utility property with respect to X's regulated books of account requires X to reflect its tax expense in such books using the same method of depreciation which regulatory body B uses for determining X's cost of service for ratemaking purposes. If in 1971, in the course of approving a rate change for X, B retroactively determines X's cost of service for ratemaking purposes for X's July 1969 regulated accounting period using a method of depreciation different from the method reflected in X's regulated books of account as of January 1, 1970, the method of depreciation used by X for its July 1969 regulated accounting period would be determined without reference to the method retroactively used by B in 1971.

(h) Normalization method of accounting.

(1) In general.

(i) Under section 167(l), a taxpayer uses a normalization method of regulated accounting with respect to public utility property-

(a) If the same method of depreciation (whether or not a subsection (l) method) is used to compute both its tax expense and its depreciation expense for purposes of establishing cost of service for ratemaking purposes and for reflecting operating results in its regulated books of account, and

(b) If to compute its allowance for depreciation under section 167 it uses a method of depreciation other than the method it used for purposes described in (a) of this subdivision, the taxpayer makes adjustments consistent with subparagraph (2) of this paragraph to a reserve to reflect the total amount of the deferral of Federal income tax liability resulting from the use with respect to all of its public utility property of such different methods of depreciation.

(ii) In the case of a taxpayer described in section 167(l)(1)(B) or (2)(C), the reference in subdivision (i) of this subparagraph shall be a reference only to such taxpayer's "qualified public utility property". See § 1.167(l)-2(b) for definition of "qualified public utility property".

(iii) Except as provided in this subparagraph, the amount of Federal income tax liability deferred as a result of the use of different method of depreciation under subdivision (i) of this subparagraph is the excess (computed without regard to credits) of the amount the tax liability would have been had a subsection (l) method been used over the amount of the actual tax liability. Such amount shall be taken into account for the taxable year in which such different methods of depreciation are used. If, however, in respect of any taxable year the use of a method of depreciation other than a subsection (l) method for purposes of determining the taxpayer's reasonable allowance under section 167(a) results in a net operating loss carryover (as determined under section 172) to a year succeeding such taxable year which would not have arisen (or an increase in such carryover which would not have arisen) had the taxpayer determined his reasonable allowance under section 167(a) using a subsection (l) method, then the amount and time of the deferral of tax liability shall be taken into account in such appropriate time and manner as is satisfactory to the district director.

(2) Adjustments to reserve.

(i) The taxpayer must credit the amount of deferred Federal income tax determined under subparagraph (1)(i) of this paragraph for any taxable year to a reserve for deferred taxes, a depreciation reserve, or other reserve account. The taxpayer need not establish a separate reserve account for such amount but the amount of deferred tax determined under subparagraph (1)(i) of this

paragraph must be accounted for in such a manner so as to be readily identifiable. With respect to any account, the aggregate amount allocable to deferred tax under section 167(l) shall not be reduced except to reflect the amount for any taxable year by which Federal income taxes are greater by reason of the prior use of different methods of depreciation under subparagraph (1)(i) of this paragraph. An additional exception is that the aggregate amount allocable to deferred tax under section 167(l) may be properly adjusted to reflect asset retirements or the expiration of the period for depreciation used in determining the allowance for depreciation under section 167(a).

(ii) The provisions of this subparagraph may be illustrated by the following examples:

Example (1). Corporation X is exclusively engaged in the transportation of gas by pipeline subject to the jurisdiction of the Federal Power Commission. With respect to its post-1969 public utility property, X is entitled under section 167(l)(2)(B) to use a method of depreciation other than a subsection (l) method if it uses a normalization method of regulated accounting. With respect to such property, X has not made any election under § 1.167(a)-11 (relating to depreciation based on class lives and asset depreciation ranges). In 1972, X places in service public utility property with an unadjusted basis of \$2 million, and an estimated useful life of 20 years. X uses the declining balance method of depreciation with a rate twice the straight line rate. If X uses a normalization method of regulated accounting, the amount of depreciation allowable under section 167(a) with respect to such property for 1972 computed under the double declining balance method would be \$200,000. X computes its tax expense and depreciation expense for purposes of determining its cost of service for rate-making purposes and for reflecting operating results in its regulated books of account using the straight line method of depreciation (a subsection (l) method). A depreciation allowance computed in this manner is \$100,000. The excess of the depreciation allowance determined under the double declining balance method (\$200,000) over the depreciation expense computed using the straight line method (\$100,000) is \$100,000. Thus, assuming a tax rate of 48 percent, X used a normalization method of regulated accounting for 1972 with respect to property placed in service that year if for 1972 it added to a reserve \$48,000 as taxes deferred as a result of the use by X of a method of depreciation for Federal income tax purposes different from that used for establishing its cost of service for ratemaking purposes and for reflecting operating results in its regulated books of account.

Example (2). Assume the same facts as in example (1), except that X elects to apply § 1.167(a)-11 with respect to all eligible property placed in service in 1972. Assume further that all property X placed in service in 1972 is eligible property. One hundred percent of the asset guideline period for such property is 22 years and the asset depreciation range is from 17.5 years to 26.5 years. X uses the double declining balance method of depreciation, selects an asset depreciation period of 17.5 years, and applies the half-year convention (described in § 1.167(a)-11(c)(2)(iii)). In 1972, the depreciation allowable under section 167(a) with respect to property placed in service in 1972 is \$114,285 (determined without regard to the normalization requirements in § 1.167(a)-11(b)(6) and in section 167(l)). X computes its tax expense for purposes of determining its cost of service for ratemaking purposes and for reflecting operating results in its regulated books of account using the

straight line method of depreciation (a subsection (l) method), an estimated useful life of 22 years (that is, 100 percent of the asset guideline period), and the half-year convention. A depreciation allowance computed in this manner is \$45,454. Assuming a tax rate of 48 percent, the amount that X must add to a reserve for 1972 with respect to property placed in service that year in order to qualify as using a normalization method of regulated accounting under section 167(l)(3)(G) is \$27,429 and the amount in order to satisfy the normalization requirements of §1.167(a)-11(b)(6) is \$5,610. X determined such amounts as follows:

(1) Depreciation allowance on tax return (determined without regard to section 167(l) and §1.167(a)-11(b)(6))	\$114,285
(2) Line (1), recomputed using a straight line method	57,142
<hr/>	
(3) Difference in depreciation allowance attributable to different methods (line (1) minus line (2))	\$ 57,143
(4) Amount to add to reserve under this paragraph (48 percent of line (3))	27,429
<hr/>	
(5) Amount in line (2)	\$57,142
(6) Line (5), recomputed by using an estimated useful life of 22 years and the half-year convention	45,454
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(7) Difference in depreciation allowance attributable to difference in depreciation periods	\$11,688
(8) Amount to add to reserve under §1.167(a)-11(b)(6)(ii) (48 percent of line (7))	5,610
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If, for its depreciation expense for purposes of determining its cost of service for rate-making purposes and for reflecting operating results in its regulated books of account, X had used a period in excess of the asset guideline period of 22 years, the total amount in lines (4) and (8) in this example would not be changed.

Example (3). Corporation Y, a calendar-year taxpayer which is engaged in furnishing electrical energy, made the election provided by section 167(l)(4)(a) with respect to its "qualified public utility property" (as defined in §1.167(l)-2(b)). In 1971, Y placed in service qualified public utility property which had an adjusted basis of \$2 million, estimated useful life of 10 years, and no salvage value. With respect to property of the same kind most recently placed in service, Y used a flow-through method of regulated accounting for its July 1969 regulated accounting period and the applicable 1968 method is the declining balance method of depreciation using 200 percent of the straight line rate. The amount of depreciation allowable under the double declining balance method with respect

to the qualified public utility property would be \$200,000. Y computes its tax expense and depreciation expense for purposes of determining its cost of service for ratemaking purposes and for reflecting operating results in its regulated books of account using the straight line method of depreciation. A depreciation allowance with respect to the qualified public utility property determined in this manner is \$100,000. The excess of the depreciation allowance determined under the double declining balance method (\$200,000) over the depreciation expense computed using the straight line method (\$100,000) is \$100,000. Thus, assuming a tax rate of 48 percent, Y used a normalization method of regulated accounting for 1971 if for 1971 it added to a reserve \$48,000 as tax deferred as a result of the use by Y of a method of depreciation for Federal income tax purposes with respect to its qualified public utility property which method was different from that used for establishing its cost of service for ratemaking purposes and for reflecting operating results in its regulated books of account for such property.

Example (4). Corporation Z, exclusively engaged in a public utility activity did not use a flow-through method of regulated accounting for its July 1969 regulated accounting period. In 1971, a regulatory body having jurisdiction over all of Z's property issued an order applicable to all years beginning with 1968 which provided, in effect, that Z use an accelerated method of depreciation for purposes of section 167 and for determining its tax expenses for purposes of reflecting operating results in its regulated books of account. The order further provided that Z normalize 50 percent of the tax deferral resulting from the use of the accelerated method of depreciation and that Z flow-through 50 percent of the tax deferral resulting therefrom. Under section 167(l), the method of accounting provided in the order would not be a normalization method of regulated accounting because Z would not be permitted to normalize 100 percent of the tax deferral resulting from the use of an accelerated method of depreciation. Thus, with respect to its public utility property for purposes of section 167, Z may only use a subsection (l) method of depreciation.

Example (5). Assume the same facts as in example (4) except that the order of the regulatory body provided, in effect, that Z normalize 100 percent of the tax deferral with respect to 50 percent of its public utility property and flow-through the tax savings with respect to the other 50 percent of its property. Because the effect of such an order would allow Z to flow-through a portion of the tax savings resulting from the use of an accelerated method of depreciation, Z would not be using a normalization method of regulated accounting with respect to any of its properties. Thus, with respect to its public utility property for purposes of section 167, Z may only use a subsection (l) method of depreciation.

(3) *Establishing compliance with normalization requirements in respect of operating books of account.* The taxpayer may establish compliance with the requirement in subparagraph (1)(i) of this paragraph in respect of reflecting operating results, and adjustments to a reserve, in its operating books of account by reference to the following:

(i) The most recent periodic report for a period beginning before the end of the taxable year, required

by a regulatory body described in section 167(l)(3)(A) having jurisdiction over the taxpayer's regulated operating books of account which was filed with such body before the due date (determined with regard to extensions) of the taxpayer's Federal income tax return for such taxable year (whether or not such body has jurisdiction over rates).

(ii) If subdivision (i) of this subparagraph does not apply, the taxpayer's most recent report to its shareholders for the taxable year but only if (a) such report was distributed to the shareholders before the due date (determined with regard to extensions) of the taxpayer's Federal income tax return for the taxable year and (b) the taxpayer's stocks or securities are traded in an established securities market during such taxable year. For purposes of this subdivision, the term "established securities market" has the meaning assigned to such term in § 1.453-3(d)(4).

(iii) If neither subdivision (i) nor (ii) of this subparagraph applies, entries made to the satisfaction of the district director before the due date (determined with regard to extensions) of the taxpayer's Federal income tax return for the taxable year in its regulated books of account for its most recent period beginning before the end of such taxable year.

(4) Establishing compliance with normalization requirements in computing cost of service for ratemaking purposes.

(i) In the case of a taxpayer which used a flow-through method or regulated accounting for its July 1969 regulated accounting period or thereafter, with respect to all or a portion of its pre-1970 public utility property, if a regulatory body having jurisdiction to establish the rates of such taxpayer as to such property (or a court which has jurisdiction over such body) issues an order of general application (or an order of specific application to the taxpayer) which states that such regulatory body (or court) will permit a class of taxpayers of which such taxpayer is a member (or such taxpayer) to use the normalization method of regulated accounting to establish cost of service for ratemaking purposes with respect to all or a portion of its public utility property, the taxpayer will be presumed to be using the same method of depreciation to compute both its tax expense and its depreciation expense for purposes of establishing its cost of service for ratemaking purposes with respect to the public utility property to which such order applies. In the event that such order is in any way conditional, the preceding sentence shall not apply until all of the conditions contained in such order which are applicable to the taxpayer have been fulfilled. The taxpayer shall establish to the satisfaction of the Commissioner or his delegate that such conditions have been fulfilled.

(ii) In the case of a taxpayer which did not use the flow-through method of regulated accounting for its July 1969 regulated accounting period or thereafter (including a taxpayer which used a subsection (l) method of depreciation to compute its allowance for depreciation under section 167(a) and to compute its tax expense for purposes of reflecting operating results in its regulated books of

account), with respect to any of its public utility property, it will be presumed that such taxpayer is using the same method of depreciation to compute both its tax expense and its depreciation expense for purposes of establishing its cost of service for ratemaking purposes with respect to its post-1969 public utility property. The presumption described in the preceding sentence shall not apply in any case where there is (a) an expression of intent (regardless of the manner in which such expression of intent is indicated) by the regulatory body (or bodies), having jurisdiction to establish the rates of such taxpayer, which indicates that the policy of such regulatory body is in any way inconsistent with the use of the normalization method of regulated accounting by such taxpayer or by a class of taxpayers of which such taxpayer is a member, or (b) a decision by a court having jurisdiction over such regulatory body which decision is in any way inconsistent with the use of the normalization method of regulated accounting by such taxpayer or a class of taxpayers of which such taxpayer is a member. The presumption shall be applicable on January 1, 1970, and shall, unless rebutted, be effective until an inconsistent expression of intent is indicated by such regulatory body or by such court. An example of such an inconsistent expression of intent is the case of a regulatory body which has, after the July 1969 regulated accounting period and before January 1, 1970, directed public utilities subject to its ratemaking jurisdiction to use a flow-through method of regulated accounting, or has issued an order of general application which states that such agency will direct a class of public utilities of which the taxpayer is a member to use a flow-through method of regulated accounting. The presumption described in this subdivision may be rebutted by evidence that the flow-through method of regulated accounting is being used by the taxpayer with respect to such property.

(iii) The provisions of this subparagraph may be illustrated by the following examples:

Example (1). Corporation X is a calendar-year taxpayer and its "applicable 1968 method" is a straight line method of depreciation. Effective January 1, 1970, X began collecting rates which were based on a sum of the years-digits method of depreciation and a normalization method of regulated accounting which rates had been approved by a regulatory body having jurisdiction over X. On October 1, 1971, a court of proper jurisdiction annulled the rate order prospectively, which annulment was not appealed, on the basis that the regulatory body had abused its discretion by determining the rates on the basis of a normalization method of regulated accounting. As there was no inconsistent expression of intent during 1970 or prior to the due date of X's return for 1970, X's use of the sum of the years-digits method of depreciation for purposes of section 167 on such return was proper. For 1971, the presumption is in effect through September 30. During 1971, X may use the sum of the years-digits method of depreciation for purposes of section 167 from January 1 through September 30, 1971. After September 30, 1971, and for taxable years after 1971, X must use a straight line method of depreciation until the inconsistent court decision is no longer in effect.

Example (2). Assume the same facts as in example (1), except that pursuant to the order of annulment, X was required to refund the portion of the rates attributable to the use of the normalization method of regulated accounting. As there was no inconsistent expression of intent during 1970 or prior to the due date of X's return for 1970, X has the benefit of the presumption with

respect to its use of the sum of the years-digits method of depreciation for purposes of section 167, but because of the retroactive nature of the rate order X must file an amended return for 1970 using a straight line method of depreciation. As the inconsistent decision by the court was handed down prior to the due date of X's Federal income tax return for 1971, for 1971 and thereafter the presumption of subdivision (ii) of this subparagraph does not apply. X must file its Federal income tax returns for such years using a straight line method of depreciation.

Example (3). Assume the same facts as in example (2), except that the annulment order was stayed pending appeal of the decision to a court of proper appellate jurisdiction. X has the benefit of the presumption as described in example (2) for the year 1970, but for 1971 and thereafter the presumption of subdivision (ii) of this subparagraph does not apply. Further, X must file an amended return for 1970 using a straight line method of depreciation and for 1971 and thereafter X must file its returns using a straight line method of depreciation unless X and the district director have consented in writing to extend the time for assessment of tax for 1970 and thereafter with respect to the issue of normalization method of regulated accounting for as long as may be necessary to allow for resolution of the appeal with respect to the annulment of the rate order.

(5) Change in method of regulated accounting. The taxpayer shall notify the district director of a change in its method of regulated accounting, an order by a regulatory body or court that such method be changed, or an interim or final rate determination by a regulatory body which determination is inconsistent with the method of regulated accounting used by the taxpayer immediately prior to the effective date of such rate determination. Such notification shall be made within 90 days of the date that the change in method, the order, or the determination is effective. In the case of a change in the method of regulated accounting, the taxpayer shall recompute its tax liability for any affected taxable year and such recomputation shall be made in the form of an amended return where necessary unless the taxpayer and the district director have consented in writing to extend the time for assessment of tax with respect to the issue of normalization method of regulated accounting.

(6) Exclusion of normalization reserve from rate base.

(i) Notwithstanding the provisions of subparagraph (1) of this paragraph, a taxpayer does not use a normalization method of regulated accounting if, for ratemaking purposes, the amount of the reserve for deferred taxes under section 167(l) which is excluded from the base to which the taxpayer's rate of return is applied, or which is treated as no-cost capital in those rate cases in which the rate of return is based upon the cost of capital, exceeds the amount of such reserve for deferred taxes for the period used in determining the taxpayer's tax expense in computing cost of service in such ratemaking.

(ii) For the purpose of determining the maximum amount of the reserve to be excluded from the rate base (or to be included as no-cost capital) under subdivision (i) of this subparagraph, if solely an

historical period is used to determine depreciation for Federal income tax expense for ratemaking purposes, then the amount of the reserve account for the period is the amount of the reserve (determined under subparagraph (2) of this paragraph) at the end of the historical period. If solely a future period is used for such determination, the amount of the reserve account for the period is the amount of the reserve at the beginning of the period and a pro rata portion of the amount of any projected increase to be credited or decrease to be charged to the account during such period. If such determination is made by reference both to an historical portion and to a future portion of a period, the amount of the reserve account for the period is the amount of the reserve at the end of the historical portion of the period and a pro rata portion of the amount of any projected increase to be credited or decrease to be charged to the account during the future portion of the period. The pro rata portion of any increase to be credited or decrease to be charged during a future period (or the future portion of a part-historical and part-future period) shall be determined by multiplying any such increase or decrease by a fraction, the numerator of which is the number of days remaining in the period at the time such increase or decrease is to be accrued, and the denominator of which is the total number of days in the period (or future portion).

(iii) The provisions of subdivision (i) of this subparagraph shall not apply in the case of a final determination of a rate case entered on or before May 31, 1973. For this purpose, a determination is final if all rights to request a review, a rehearing, or a redetermination by the regulatory body which makes such determination have been exhausted or have lapsed. The provisions of subdivision (ii) of this subparagraph shall not apply in the case of a rate case filed prior to June 7, 1974, for which a rate order is entered by a regulatory body having jurisdiction to establish the rates of the taxpayer prior to September 5, 1974, whether or not such order is final, appealable, or subject to further review or reconsideration.

(iv) The provisions of this subparagraph may be illustrated by the following examples:

Example (1). Corporation X is exclusively engaged in the transportation of gas by pipeline subject to the jurisdiction of the Z Power Commission. With respect to its post-1969 public utility property, X is entitled under section 167(l)(2)(B) to use a method of depreciation other than a subsection (l) method if it uses a normalization method of regulated accounting. With respect to X the Z Power Commission for purposes of establishing cost of service uses a recent consecutive 12-month period ending not more than 4 months prior to the date of filing a rate case adjusted for certain known changes occurring within a 9-month period subsequent to the base period. X's rate case is filed on January 1, 1975. The year 1974 is the recorded test period for X's rate case and is the period used in determining X's tax expense in computing cost of service. The rates are contemplated to be in effect for the years 1975, 1976, and 1977. The adjustments for known changes relate only to wages and salaries. X's rate base at the end of 1974 is \$145,000,000. The amount of the reserve for deferred taxes under section 167(l) at the end of 1974 is \$1,300,000, and the reserve is projected to be \$4,400,000 at the end of 1975, \$6,600,000 at the end of 1976, and \$9,800,000 at the end of 1977. X

does not use a normalization method of regulated accounting if the Z Power Commission excludes more than \$1,300,000 from the rate base to which X's rate of return is applied. Similarly, X does not use a normalization method of regulated accounting if, instead of the above, the Z Power Commission, in determining X's rate of return which is applied to the rate base, assigns to no-cost capital an amount that represents the reserve account for deferred tax that is greater than \$1,300,000.

Example (2). Assume the same facts as in example (1) except that the adjustments for known changes in cost of service made by the Z Power Commission include an additional depreciation expense that reflects the installation of new equipment put into service on January 1, 1975. Assume further that the reserve for deferred taxes under section 167(l) at the end of 1974 is \$1,300,000 and that the monthly net increase for the first 9 months of 1975 are projected to be

January 1-31	\$310,000
February 1-28	300,000
March 1-31	300,000
April 1-30	280,000
May 1-31	270,000
June 1-30	260,000
July 1-31	260,000
August 1-31	250,000
September 1-30	240,000
	\$2,470,000

For its regulated books of account X accrues such increases as of the last day of the month but as a matter of convenience credits increases or charges decreases to the reserve account on the 15th day of the month following the whole month for which such increase or decrease is accrued. The maximum amount that may be excluded from the rate base is \$2,470,879 (the amount in the reserve at the end of the historical portion of the period (\$1,300,000) and a pro rata portion of the amount of any projected increase for the future portion of the period to be credited to the reserve (\$1,170,879)). Such pro rata portion is computed (without regard to the date such increase will actually be posted to the account) as follows:

$\$310,000 \times 243/273 =$	\$275,934
$300,000 \times 215/273 =$	236,264
$300,000 \times 184/273 =$	202,198
$280,000 \times 154/273 =$	157,949
$270,000 \times 123/273 =$	121,648
$260,000 \times 93/273 =$	88,571

$260,000 \times 62/273 =$	59,048
$250,000 \times 31/273 =$	28,388
$240,000 \times 1/273 =$	879
	\$1,170,879

Example (3). Assume the same facts as in example (1) except that for purposes of establishing cost of service the Z Power Commission uses a future test year (1975). The rates are contemplated to be in effect for 1975, 1976, and 1977. Assume further that plant additions, depreciation expense, and taxes are projected to the end of 1975 and that the reserve for deferred taxes under section 167(l) is \$1,300,000 for 1974 and is projected to be \$4,400,000 at the end of 1975. Assume also that the Z Power Commission applies the rate of return to X's 1974 rate base of \$145,000,000 X and the Z Power Commission through negotiation arrive at the level of approved rates. X uses a normalization method of regulated accounting only if the settlement agreement, the rate order, or record of the proceedings of the Z Power Commission indicates that the Z Power Commission did not exclude an amount representing the reserve for deferred taxes from X's rate base (\$145,000,000) greater than \$1,300,000 plus a pro rata portion of the projected increases and decreases that are to be credited or charged to the reserve account for 1975. Assume that for 1975 quarterly net increases are projected to be

1st quarter	\$910,000
2nd quarter	810,000
3rd quarter	750,000
4th quarter	630,000
Total	\$3,100,000

For its regulated books of account X will accrue such increases as of the last day of the quarter but as a matter of convenience will credit increases or charge decreases to the reserve account on the 15th day of the month following the last month of the quarter for which such increase or decrease will be accrued. The maximum amount that may be excluded from the rate base is \$2,591,480 (the amount of the reserve at the beginning of the period (\$1,300,000) plus a pro rata portion (\$1,291,480) of the \$3,100,000 projected increase to be credited to the reserve during the period). Such portion is computed (without regard to the date such increase will actually be posted to the account) as follows:

$\$910,000 \times 276/365 =$	\$688,110
$810,000 \times 185/365 =$	410,548
$750,000 \times 93/365 =$	191,096
$630,000 \times 1/365 =$	1,726
	\$1,291,480

(i) Flow-through method of regulated accounting. Under section 167(l)(3)(H), a taxpayer uses a flow-through method of regulated accounting with respect to public utility property if it uses the same method of depreciation (other than a subsection (l) method) to compute its allowance for depreciation under section 167 and to compute its tax expense for purposes of reflecting operating results in its regulated books of account unless such method is the same method used by the taxpayer to determine its depreciation expense for purposes of reflecting operating results in its regulated books of account. Except as provided in the preceding sentence, the method of depreciation used by a taxpayer with respect to public utility property for purposes of determining cost of service for ratemaking purposes or rate base for ratemaking purposes shall not be considered in determining whether the taxpayer used a flow-through method of regulated accounting. A taxpayer may establish use of a flow-through method of regulated accounting in the same manner that compliance with normalization requirements in respect of operating books of account may be established under paragraph (h)(4) of this section.

T.D. 7315, 6/6/74 .

STAFF-DR-02-170

REQUEST:

Refer to Duke Kentucky's response to Staff's First Request, Item 54, STAFF-DR-01 - 054_Attachment_-_KPSC_Elec_SFRs_-_2019.xlsx at tab "Sch_B1," tab "Sch_B6," and tab "Sch_D1." Explain what the amounts in cells AA297 and AA302 of "Sch_D1" represent, and explain why those amounts are subtracted from deferred income taxes in "Sch_B6" to obtain the total deferred income taxes removed from rate base as shown in the formula for cell I36 of "Sch_B1."

RESPONSE:

The amounts in cells AA297 and AA302 of "Sch_D1" represent the tax impact of the proforma adjustment to annualize depreciation expense shown on Schedule D-2.24. The adjustment on Schedule B-1 in cell I36 is made to record the impact of that entry on the accumulated deferred income tax (ADIT) balance. In other words, book depreciation expense has increased but there has been no corresponding change to tax depreciation expense. Because of that, the accumulated deferred income tax balance has decreased (there is less of a difference between book and tax depreciation). The adjustment on Schedule B-1 in cell I36 reflects that decrease in deferred tax expense (i.e. Debit ADIT, Credit Deferred Income Tax Expense).

PERSON RESPONSIBLE: Sarah E. Lawler

REQUEST:

Refer to Duke Kentucky's response to Staff's First Data Request, Item 55, STAFF-DR-055_Attachment_-_DEK_Electric_COSS_2019_Maros_Disabled.xlsx.

a. Refer to the Customer Charge tab.

(1) Given the cost-of-service-study (COSS) supported a customer charge of \$22.10 for Rate OS Secondary Distribution, explain why Duke Kentucky is proposing to reduce the current customer charge for single-phase service from \$17.14 to \$15.00 and reduce triple-phase service from \$34.28 to \$30.00.

(2) Given the COSS supported a customer charge of \$57.50 for Rate OT Secondary Distribution, explain why Duke Kentucky is proposing to increase the customer charge from \$63.50 to \$65.00.

(3) Given the COSS supported a customer charge of \$24.05 for Rate EH, explain why Duke Kentucky is proposing to reduce the current customer charge from \$17.14 to \$15.00.

(4) Given the COSS supported a customer charge of \$23.00 for Rate SP, explain why Duke Kentucky is proposing to reduce the current customer charge from \$17.14 to \$15.00.

b. Refer to the Minimum Size Summary tab. Provide a side by side comparison of the customer and demand allocations for each property class in the instant case and Case No. 2017-00321.

c. Refer to the WF FR-16(7)(v) Rate Incur tab.

(1) Duke Kentucky is recommending a five percent decrease in the inter-class subsidization. In Duke Kentucky's last base rate case, Case No. 2017-00321, Duke Kentucky proposed a 10 percent decrease in the inter-class subsidization. Explain why Duke Kentucky is proposing a smaller reduction in the inter-class subsidization in the instant case.

(2) Explain if the removal of credit card fees is accounted for in the miscellaneous revenues.

RESPONSE:

a.

(1) The COSS supports a customer charge of \$22.10 for rate DS Secondary. The current customer charges are \$17.14 for single phase and \$34.28 for 3 phase. The weighted average customer charge based on the test period is \$25.03, which is higher than the amount justified by the COSS. Lowering the customer charges to \$15.00 for single phase and \$30.00 for 3 phase results in a weighted average of \$21.91.

(2) For rates schedules that serve few customers, the COSS results for the customer cost component can vary significantly from one study to the other. Rather than chase the results of the COSS and creating large swings in the customer charge with each case, the intention was for the customer charge for Rate DT Secondary to be increased by the same overall percentage increase for that rate (11.8%). However, an error in the

spreadsheet resulted in the customer charge being increased only 2.4%. Increasing the customer charge by the overall percentage would have resulted in a customer charge of \$71 for single phase and \$142 for 3 phase with an associated decrease in energy and/or demand charges to compensate and keep the rate revenue neutral. The Company supports the customer charges as filed but at the direction of the Commission will alter charges to be consistent with the above referenced customer charges.

(3) Since Rate EH has historically had the same customer charge as Rate DS, this was maintained in the proposed customer charge.

(4) The rationale is the same as for #3 above, since Rate SP has also historically had the same customer charge as Rate DS Single Phase.

b. Please see the table below.

Summary of Minimum Size Studies for Testimony					
<u>Account</u>	<u>Class of Property</u>	<u>2019-00271</u>		<u>2017-00321</u>	
		<u>Customer</u>	<u>Demand</u>	<u>Customer</u>	<u>Demand</u>
	<u>Poles, Towers & Fixtures</u>				
364	Primary	31.40%	68.60%	31.52%	68.48%
364	Secondary	21.29%	78.71%	20.30%	79.70%
	<u>Overhead Conductors</u>				
365	Primary	17.92%	82.08%	22.57%	77.43%
365	Secondary	18.18%	81.82%	19.81%	80.19%
	<u>Underground Conductors</u>				
367	Primary	23.70%	76.30%	22.40%	77.60%
367	Secondary	36.18%	63.82%	36.27%	63.73%
368	<u>Line Transformer</u>	24.53%	75.47%	32.38%	67.62%

c.

(1) The Company proposed a five percent reduction in interclass subsidization instead of ten percent to keep the proposed residential rate increase to less than twenty percent.

(2) No. Credit card fees are not included in either the current or proposed miscellaneous revenues. Credit card fees are paid by customers directly to the vendor that processes the credit payments.

PERSON RESPONSIBLE:

Jeff Kern – a.

James E. Ziolkowski – b., c.

REQUEST:

Refer to Case No. 2017-00321, Rebuttal Testimony of Lisa Bellucci (Bellucci Rebuttal), including Attachment LMB - Rebuttal 1, and refer to STAFF-DR-01-054_Attachment_-_KPSC_Elec_SFRs_-_2019.xlsx at tab "WPB-6's" produced in response to Staff's First Request, Item 54 in this matter.

a. Explain each reason why the total protected excess ADIT balance in May 2019, as shown on tab "WPB-6's," at Excel line 59, column F of the spreadsheet increased as compared to the total protected excess ADIT balance shown on Attachment LMB - Rebuttal 1.

b. Explain each reason why the total unprotected excess ADIT balance in May 2019 as shown on tab "WPB-6's" at excel line 60, column F of the spreadsheet decreased as compared to the protected excess ADIT balance shown on Attachment LMB - Rebuttal 1 at a rate faster than the amortization rate approved in the Commission's final order in Case No. 2017-00321.

c. Confirm that the rate of amortization of excess protected ADIT permitted using the average rate assumption method is dynamic and will generally change annually based on whether and the extent to which the timing differences that generated the excess protected ADIT are reversing as indicated on page 5, line 16 through page 6, line 4 of the Bellucci

Rebuttal, and if it cannot be confirmed, please explain each reason why it cannot be confirmed.

d. Explain why the amortization rate for protected excess ADIT for electric operations shown on tab "WPB-6's" remains constant at \$36,580 per month from May 2019 through March 2021.

e. Explain why Duke Kentucky used an amortization rate for protected excess ADIT for electric operations of \$36,580 per month for May 2019 through December 2019 on tab "WPB-6's" but Attachment LMB - Rebuttal 1 to the Bellucci Rebuttal calculated an estimated amortization rate of \$1,406,984 per year (or \$117,248.67 per month) for protected excess ADIT for electric operations in 2019 using the average rate assumption method.

f. Explain how Duke Kentucky calculated the amortization rate as shown on tab "WPB-6's" for protected excess ADIT in the base and forecasted periods, and provide workpapers showing the calculations in excel spreadsheet format with formulas intact.

g. If Duke Kentucky used any method other than the average rate assumption method to calculate the amortization rate for protected excess ADIT as shown on tab "WPB-6's", explain why Duke Kentucky used a method other than the average rate assumption method and provide the amortization rate for excess ADIT in the base and forecasted periods using the average rate assumption method.

RESPONSE:

a. Please see attached schedule STAFF-DR-02-172 Attachment.

b. Please see attached schedule STAFF-DR-02-172 Attachment.

c. The amortization of Excess ADIT will change annually as the amortization is done for each asset individually in the PowerTax system. Some assets will start amortization in a given year and some assets may finish in a given year. In addition, depreciation amounts (book and/or tax) will vary year over year and retirements will also have an impact.

d. When Duke Energy Kentucky forecasted the Excess ADIT for future years it used one consistent rate. The rate calculated for 2018 using PowerTax was assumed to be constant for all years after 2018. This was done due to the complexity of getting precise estimates in PowerTax. Estimating out years is time consuming and very difficult to get precise due to all the various inputs that are required. The 2018 rate was the best available estimate for years after 2018.

e. The actual 2017 tax return was not completed when the first estimates were made for Ms. Belluci's Rebuttal Testimony. Once the 2017 tax return was completed Duke Energy Kentucky recorded any necessary true-ups and then calculated a new revised estimate for the amortization of excess ADIT using the actual 2017 tax return information.

f. See STAFF-DR-02-172(f) Attachment.

g. Duke Energy Kentucky is only using the average rate assumption method for the amortization of protected excess ADIT.

PERSON RESPONSIBLE: John Panizza

Duke Energy Kentucky
 EDIT Reconciliation
 (DR./CR).

Electric EDIT Balance	
	Protected
12/31/17 Balance per Lisa's Testimony	34,912,797
Reclass EDIT	385,563
2017 Tax Return True Ups	12,517,347
Adjusted Federal EDIT	47,815,707
2018 State EDIT	-
Total EDIT	47,815,707
Reclass EDIT amortization from Protected to Unprotected	(146,320)
Fed EDIT Amortization	(475,542)
EDIT as of 05/31/2019	47,193,845
EDIT as per WPB-6	47,193,845
Variance	-

**DUE TO THE SIZE OF
STAFF-DR-02-172(f) ATTACHMENT
BEING PROVIDED ON CD IN EXCEL WITH
FORMULAS INTACT**