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Grant Application Package

Opportunity Title:	Recovery Act - Smart Grid Investment Grant Program
Offering Agency:	Headquarters
CFDA Number:	81.122
CFDA Description:	Electricity Delivery and Energy Reliability, Research,
Opportunity Number:	DE-FOA-0000058
Competition ID:	
Opportunity Open Date:	06/25/2009
Opportunity Close Date:	08/06/2009
Agency Contact:	DOESGIGQuestions@HQ.DOE.GOV

This electronic grants application is intended to be used to apply for the specific Federal funding opportunity referenced here.

If the Federal funding opportunity listed is not the opportunity for which you want to apply, close this application package by clicking on the "Cancel" button at the top of this screen. You will then need to locate the correct Federal funding opportunity, download its application and then apply.

☐ I will be submitting applications on my behalf, and not on behalf of a company, state, local or tribal government, academia, or other type of organization.

* Application Filing Name: Duke Energy Smart Grid Deployment

Mandatory Documents

Move Form to Complete

Move Form to Delete

Mandatory Documents for Submission

- Other Attachments Form
- Project/Performance Site Location(s)
- Application for Federal Assistance (SF-424)

Optional Documents

- Disclosure of Lobbying Activities (SF-LLL)

Move Form to Submission List

Move Form to Delete

Optional Documents for Submission

PENGAD 800-631-6989 EXHIBIT 14 Schneider 11-9-21

Instructions

1. **Enter a name for the application in the Application Filing Name field.**

- This application can be completed in its entirety offline; however, you will need to login to the Grants.gov website during the submission process.
- You can save your application at any time by clicking the "Save" button at the top of your screen.
- The "Save & Submit" button will not be functional until all required data fields in the application are completed and you clicked on the "Check Package for Errors" button and confirmed all data required data fields are completed.

2. **Open and complete all of the documents listed in the "Mandatory Documents" box. Complete the SF-424 form first.**

- It is recommended that the SF-424 form be the first form completed for the application package. Data entered on the SF-424 will populate data fields in other mandatory and optional forms and the user cannot enter data in these fields.

- The forms listed in the "Mandatory Documents" box and "Optional Documents" may be predefined forms, such as SF-424, forms where a document needs to be attached, such as the Project Narrative or a combination of both. "Mandatory Documents" are required for this application. "Optional Documents" can be used to provide additional support for this application or may be required for specific types of grant activity. Reference the application package instructions for more information regarding "Optional Documents".

- To open and complete a form, simply click on the form's name to select the item and then click on the => button. This will move the document to the appropriate "Documents for Submission" box and the form will be automatically added to your application package. To view the form, scroll down the screen or select the form name and click on the "Open Form" button to begin completing the required data fields. To remove a form/document from the "Documents for Submission" box, click the document name to select it, and then click the <= button. This will return the form/document to the "Mandatory Documents" or "Optional Documents" box.

- All documents listed in the "Mandatory Documents" box must be moved to the "Mandatory Documents for Submission" box. When you open a required form, the fields which must be completed are highlighted in yellow with a red border. Optional fields and completed fields are displayed in white. If you enter invalid or incomplete information in a field, you will receive an error message.

3. **Click the "Save & Submit" button to submit your application to Grants.gov.**

- Once you have properly completed all required documents and attached any required or optional documentation, save the completed application by clicking on the "Save" button.
- Click on the "Check Package for Errors" button to ensure that you have completed all required data fields. Correct any errors or if none are found, save the application package.
- The "Save & Submit" button will become active; click on the "Save & Submit" button to begin the application submission process.
- You will be taken to the applicant login page to enter your Grants.gov username and password. Follow all onscreen instructions for submission.

OMB Number: 4040-0004
Expiration Date: 01/31/2009

Application for Federal Assistance SF-424

Version 02

* 1. Type of Submission:	* 2. Type of Application:	* If Revision, select appropriate letter(s):
☐ Preapplication	☒ New	
☒ Application	☐ Continuation	* Other (Specify)
☐ Changed/Corrected Application	☐ Revision	

* 3. Date Received: Completed by Grants.gov upon submission.	4. Applicant Identifier:
5a. Federal Entity Identifier:	* 5b. Federal Award Identifier:
State Use Only:	
6. Date Received by State:	7. State Application Identifier:

8. APPLICANT INFORMATION:

* a. Legal Name:	Duke Energy Business Services, LLC
* b. Employer/Taxpayer Identification Number (EIN/TIN):	[redacted]
* c. Organizational DUNS:	830760216

d. Address:

* Street1:	526 S. Church St.
Street2:	EC-03T
* City:	Charlotte
County:	Mecklenburg
* State:	NC: North Carolina
Province:	
* Country:	USA: UNITED STATES
* Zip / Postal Code:	28202

e. Organizational Unit:

Department Name:	Division Name:
US Franchised Electric & Gas	Smart Grid & Customer Systems

f. Name and contact information of person to be contacted on matters involving this application:

Prefix:	* First Name: Jeff
Middle Name:	
* Last Name:	Gates
Suffix:	
Title:	Director, Commercial Strategy
Organizational Affiliation:	Duke Energy
* Telephone Number:	704-382-7268
Fax Number:	704-382-4338
* Email:	jeff.gates@duke-energy.com

OMB Number: 4040-0004
Expiration Date: 01/31/2009

Application for Federal Assistance SF-424 Version 02

9. Type of Applicant 1: Select Applicant Type:

Q: For-Profit Organization (Other than Small Business)

Type of Applicant 2: Select Applicant Type:

Type of Applicant 3: Select Applicant Type:

*** Other (specify):**

*** 10. Name of Federal Agency:**

Headquarters

11. Catalog of Federal Domestic Assistance Number:

81.122

CFDA Title:

Electricity Delivery and Energy Reliability, Research, Development and Analysis

*** 12. Funding Opportunity Number:**

DE-FOA-0000058

*** Title:**

Recovery Act - Smart Grid Investment Grant Program

13. Competition Identification Number:

Title:

14. Areas Affected by Project (Cities, Counties, States, etc.):

See Project/Performance Site Locations Form (in Optional Other Attachments). The areas affected include various locations in Duke Energy's Service Territory in Indiana (68 counties), Ohio (10 counties) and Kentucky (6 counties).

*** 15. Descriptive Title of Applicant's Project:**

Duke Energy Smart Grid Deployment

Attach supporting documents as specified in agency instructions.

Add Attachments | Delete Attachments | View Attachments

OMB Number: 4040-0004
Expiration Date: 01/31/2009

Application for Federal Assistance SF-424

Version 02

16. Congressional Districts Of:

* a. Applicant: NC-012
* b. Program/Project: IN-001

Attach an additional list of Program/Project Congressional Districts if needed.

SF424 Attachment Question 16 | Add Attachment | Delete Attachment | View Attachment

17. Proposed Project:

* a. Start Date: 01/01/2010
* b. End Date: 12/31/2012

18. Estimated Funding ($):

* a. Federal	200,000,000.00
* b. Applicant	651,700,000.00
* c. State	0.00
* d. Local	0.00
* e. Other	0.00
* f. Program Income	0.00
* g. TOTAL	851,700,000.00

*** 19. Is Application Subject to Review By State Under Executive Order 12372 Process?**

☐ a. This application was made available to the State under the Executive Order 12372 Process for review on .

☐ b. Program is subject to E.O. 12372 but has not been selected by the State for review.

☒ c. Program is not covered by E.O. 12372.

*** 20. Is the Applicant Delinquent On Any Federal Debt? (If "Yes", provide explanation.)**

☐ Yes ☒ No Explanation

21. *By signing this application, I certify (1) to the statements contained in the list of certifications and (2) that the statements herein are true, complete and accurate to the best of my knowledge. I also provide the required assurances** and agree to comply with any resulting terms if I accept an award. I am aware that any false, fictitious, or fraudulent statements or claims may subject me to criminal, civil, or administrative penalties. (U.S. Code, Title 218, Section 1001)**

☒ ** I AGREE

** The list of certifications and assurances, or an Internet site where you may obtain this list, is contained in the announcement or agency specific instructions.

Authorized Representative:

Prefix:	
* First Name:	Todd
Middle Name:	
* Last Name:	Arnold
Suffix:	
* Title:	SVP, Smart Grid & Customer Systems
* Telephone Number:	513-287-2844
Fax Number:	513 287-1902
* Email:	todd.arnold@duke-energy.com
* Signature of Authorized Representative:	Completed by Grants.gov upon submission.
* Date Signed:	Completed by Grants.gov upon submission.

Authorized for Local Reproduction

Standard Form 424 (Revised 10/2005)
Prescribed by OMB Circular A-102

OMB Number: 4040-0004
Expiration Date: 01/31/2009

Application for Federal Assistance SF-424 Version 02

*** Applicant Federal Debt Delinquency Explanation**

The following field should contain an explanation if the Applicant organization is delinquent on any Federal Debt. Maximum number of characters that can be entered is 4,000. Try and avoid extra spaces and carriage returns to maximize the availability of space.

Other Attachment File(s)

* Mandatory Other Attachment Filename: Project_Plan.pdf

Add Mandatory Other Attachment | Delete Mandatory Other Attachment | View Mandatory Other Attachment

To add more "Other Attachment" attachments, please use the attachment buttons below.

Add Optional Other Attachment | Delete Optional Other Attachment | View Optional Other Attachment

Smart Grid Investment Grant DE-FOA-0000058A

ENVIRONMENTAL QUESTIONNAIRE

I. BACKGROUND

The Department of Energy (DOE) National Environmental Policy Act (NEPA) Implementing Procedures (10 CFR 1021) require careful consideration of the potential environmental consequences of all proposed actions during the early planning stages of a project or activity. DOE policy directs at the earliest possible stage in a project whether such actions will require preparation of an Environmental Assessment, an Environmental Impact Statement, or a Categorical Exclusion. To comply with these requirements, this Environmental Questionnaire must be completed for each proposed action to provide DOE with the information necessary to determine the appropriate level of NEPA review and documentation.

II. INSTRUCTIONS

Separate copies of the Environmental Questionnaire should be completed by the principal proposer and principal subcontractor(s) as needed to address the proposed project/activity. In addition, if the proposed project includes activities at different locations, an independent questionnaire should be prepared for each location. Supporting information can be provided as attachments.

In completing this Questionnaire, the proposer is requested to provide specific information and quantities, when applicable, regarding air emissions, wastewater discharges, solid wastes, etc., to facilitate the necessary review. The proposer should identify the location of the project and specifically describe the activities that would occur at that location. In addition, the proposer will be required to submit an official copy of the project's statement of work (SOW) or statement of project objective (SOPO) that will be used in the contract/agreement between the proposer and DOE.

III. QUESTIONNAIRE

A. PROJECT SUMMARY

1. Solicitation/Project Number: 81.122
2. Proposer and Subcontractors: Duke Energy Business Services, LLC
3. Principal Investigator: Todd Arnold
   Telephone Number: (513) 287-2844
4. Project Title: Duke Energy Smart Grid Deployment
5. Duration: 2010-2012
6. Location(s) of Performance (City/Township, County, State): **The following counties in Indiana - Bartholomew, Benton, Boone, Brown, Carroll, Cass, Clark, Clay, Clinton, Crawford, Daviess, Dearborn, Decatur, Delaware, Dubois, Fayette, Floyd, Fountain, Franklin, Fulton, Gibson, Grant, Greene, Hamilton, Hancock, Harrison, Hendricks, Henry, Howard, Huntington, Jackson, Jefferson, Jennings, Johnson, Knox, Kosciusko, Lawrence, Madison, Marion, Martin, Miami, Monroe, Montgomery, Morgan, Orange, Owen, Parke, Pike, Posey, Putnam, Randolph, Ripley, Rush, Scott, Shelby, Sullivan, Switzerland, Tippecanoe, Tipton, Union, Vermillion, Vigo, Wabash, Warren, Washington, Wayne, Wells, Whitley**

   The following counties in Ohio - Adams, Brown, Butler, Clermont, Clinton, Hamilton, Highland, Montgomery, Preble, Warren

   The following counties in Kentucky - Boone, Campbell, Gallatin, Grant, Kenton, Pendleton
7. Identify and select checkbox with the predominant project work activities under Group A-7a, A-7b, or A-7c. A-7b

Group A-7a

☐ Routine administrative, procurement, training, and personnel actions. Contract activities/awards for management support, financial assistance, and technical services in support of agency business, programs, projects, and goals. Literature searches and information gathering, material inventories, property surveys; data analysis, computer modeling, analytical reviews, technical summary, conceptual design, feasibility studies, document preparation, data dissemination, and paper studies. Technical assistance including financial planning, assistance, classroom training, public meetings, management training, survey participation, academic contribution, technical consultation, stakeholders surveys. Workshop and conference planning, preparation, and implementation which may involve promoting energy efficiency, renewable energy, and energy conservation.

Group A-7b

☒ Work does NOT involve new building/facilities construction and site preparation activities. This work typically involves routine operation, modification, and retrofit of existing utilities and transportation infrastructure, laboratories, commercial buildings/properties, offices and homes, test facilities, factories/power plants, vehicle test stands and components, refueling facilities, greenspace infrastructure, or other existing facilities.

Group A-7c

☐ Work or project activities typically involves major building or facility construction, site preparation; the installation, replacement, or major modifications of energy system prototypes and infrastructure, access right-of-ways and roads; utility, greenspace, and transportation infrastructure, vehicle test facilities; commercial buildings/properties, fuel refinery/mixing facilities, factories/power plants; and other types of energy efficiency/conservation related systems, structures, and facilities. This work may require new or modified regulatory permits, environmental sampling and monitoring requirements, master planning, public involvement, and environmental impact review.

☐ Other types of work or project activities not listed (please describe):

If all work activities related to this project can be classified and described within categories under item A-7a, it is a categorically excluded action. Proceed directly to Section IV CERTIFICATION BY PROPOSER, completing information and signatures as requested. The questionnaire is now complete and no additional information is required.

If project work activities are described under either item(s) A-7b, or A-7c.; then continue filling out questionnaire starting below with Question.A.8.

8. Summarize the objectives of the proposed work. List activities planned at the location as covered by this Environmental Questionnaire.

The proposed project will include implementation of two-way grid communications networks, automated metering infrastructure (AMI) including installation of 1.4 million smart meters, advanced distribution automation and control capabilities, Smart Grid IT systems and infrastructure, home area network (HAN) pilots including technologies that advance energy efficiency, new customer pricing pilots and support for plug-in hybrid electric vehicles (PHEV) and electric vehicles (EV).

9. List all other locations where work would be performed by the primary contractor of the project and primary subcontractors.

None identified. All work performed by the primary contractor and subcontractors for the proposed project will occur at existing homes and facilities.

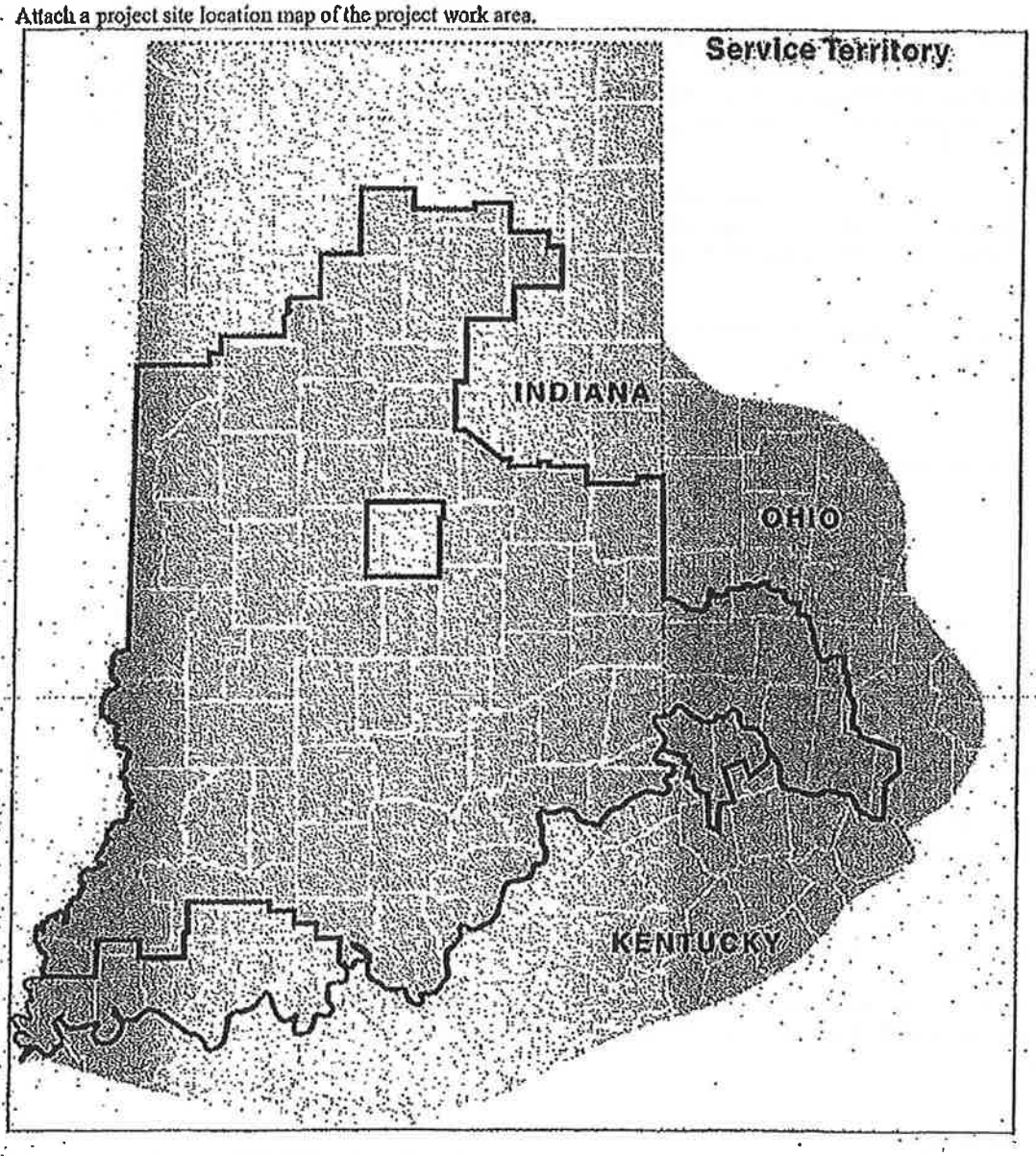
10. Identify major project operation related materials and waste that would be used, consumed, and produced by this project or activity.

The proposed project will generate approximately 1.4 million obsolete meters from customer facilities and homes as they are replaced with smart meters.

11. Provide a brief description of the project location (physical location, surrounding area, adjacent structures).

The proposed project will occur at various customer homes, facilities, and distribution substations throughout the Duke Energy service territory in Indiana, Ohio, and Kentucky.

12. Attach a project site location map of the project work area.



B. ENVIRONMENTAL IMPACTS

This section is designed to obtain information concerning environmental impacts and regulatory compliance of a proposed project. NEPA procedures require evaluations of possible effects (including land use, energy resource use, natural, historic and cultural resources, and pollutants) from proposed projects on the environment.

1. Land Use

a. Characterize present land use where the proposed project would be located.

☒ Urban	☒ Industrial	☒ Commercial	☐ Agricultural
☒ Suburban	☒ Rural	☒ Residential	☐ Research Facilities
☐ Forest	☐ University Campus	☐ Other	

b. Identify the total size of the facility, structure, or system and what portion would be used for the proposed project.

The proposed project will include implementation of two-way grid communications networks, automated metering infrastructure (AMI) including installation of 1.4 million smart meters, advanced distribution automation and control capabilities, Smart Grid IT systems and infrastructure, home area network (HAN) pilots including technologies that advance energy efficiency, new customer pricing pilots and support for plug-in hybrid electric vehicles (PHEV) and electric vehicles (EV).

c. Describe planned construction, installation, and/or demolition activities, i.e., roads, utilities system right-of-ways, parking lots, buildings, laboratories, storage tanks, fueling facilities, underground wells, pipelines, or other structures.
☒ No construction would be anticipated for this project.

d. Describe how land use would be affected by operational activities associated with the proposed project.
☒ No land areas would be affected.

e. Describe any plans to reclaim areas that would be affected by the proposed project.
☒ No land areas would be affected.

f. Would the proposed project affect any unique or unusual landforms (e.g., cliffs, waterfalls, etc.)?
☒ No ☐ Yes (describe)

g. Would the proposed project be located in or near local, state, or federal parks; forests; monuments; scenic waterways; wilderness; recreation facilities; or tribal lands?
☒ No ☐ Yes (describe)

If project work activities falls under item A-7b; then proceed directly to question D.6 (Atmospheric Conditions/Air Quality) and continue to fill out questionnaire.

If project work falls under item A-7c; then proceed directly below to question D.2 (Construction Activities and/or Operations) and continue to fill out questionnaire.

2. **Construction Activities and/or Operation**

a. Identify project structure(s), power line(s), pipeline(s), utilities systems(s), right-of-way(s) or road(s) that will be constructed and clearly mark them on a project site map or topographic map as appropriate.
☐ None

b. Would the proposed project require the construction of waste pits or settling ponds?
☐ No ☐ Yes (describe and identify location, and estimate surface area disturbed)

c. Would the proposed project affect any existing body of water?
☐ No ☐ Yes (describe)

d. Would the proposed project impact a floodplain or wetland?
☐ No ☐ Yes (describe)

e. Would the proposed project cause runoff/sedimentation/erosion?

☐ No ☐ Yes (describe)

3. **Vegetation and Wildlife Resources**

a. Identify any State- or Federal-listed endangered or threatened plant or animal species affected by the proposed project.
☐ None

b. Would any foreign substances/materials be introduced into ground or surface waters, soil, or other earth/geologic resource because of project activities? How would these foreign substances/materials affect the water, soil, and geologic resources.
☐ No ☐ Yes (describe)

c. Would any migratory animal corridors be impacted or disrupted by the proposed project?
☐ No ☐ Yes (describe)

4. **Socioeconomic and Infrastructure Conditions.**

a. Would local socio-economic changes result from the proposed project?
☐ No ☐ Yes (describe)

b. Would the proposed project generate increased traffic use of roads through local neighborhoods, urban or rural areas.?
☐ No ☐ Yes (describe)

c. Would the proposed project require new transportation access (roads, rail, etc.)? Describe location, impacts, costs.
☐ No ☐ Yes (describe)

d. Would the proposed project create a significant increase in local energy usage?
☐ No ☐ Yes (describe)

5. **Historical/Cultural Resources**

a. Describe any historical, archeological, or cultural sites in the vicinity of the proposed project; note any sites included on the National Register of Historic Places.
☐ None

b. Would construction or operational activities planned under the proposed project disturb any historical, archeological, or cultural sites?
☐ No planned construction ☐ No historic sites ☐ Yes (describe) ☐ No Impact (Discuss)

c. Would the proposed project interfere with visual resources (e.g., eliminate scenic views) or alter the present landscape?
☐ No ☐ Yes (describe)

For all proposed project work activities identified under item A-7b, respond to item D6 directly below and continue filling out environmental questionnaire.

6. **Atmospheric Conditions/Air Quality**

a. Identify air quality conditions in the immediate vicinity of the proposed project with regard to attainment of National Ambient Air Quality Standards (NAAQS). This information is available under the NAAQS tables from the U.S. EPA Air and Radiation Division.

	Attainment	Non-Attainment
O_3 - 1 Hour	☒	☐
O_3 – 8 Hour	☐	☒
SO_x	☒	☐
PM-2.5	☐	☒
PM-10	☒	☐
CO	☒	☐
NO_2	☒	☐
Lead	☒	☐

b. Would proposed project require issuance of new or modified major air quality permits?
☒ No ☐ Yes (describe)

c. Would the proposed project be in compliance with the National Emissions Standards for Hazardous Air Pollutants?
☐ No (explain) ☒ Yes

d. Would the proposed project be classified as either a New Source or a major modification to an existing source?
☒ No ☐ Yes (describe)

e. Would the proposed action be in compliance with the New Source Performance Standards?
☒ Not Applicable ☐ No (explain) ☐ Yes

f. Would the proposed project be subject to prevention of significant deterioration air quality review?
☒ Not applicable ☐ No (Explain) ☐ Yes (describe)

g. What types of air emissions, including fugitive emissions, would be anticipated from the proposed project?

No air emissions, including fugitive emissions are anticipated from equipment installed during the proposed project.

h. Would any types of emission control or particulate collection devices be used?
☒ No ☐ Yes (describe, including collection efficiencies).

i. If no control devices are used, how would emissions be vented?

N/A.

7. **Hydrologic Conditions/Water Quality**

a. What is the closest body of water to the proposed project area and what is its distance from the project site?

Locations where the proposed project will occur will cover a wide geographic area of the Duke Energy service territory in Indiana, Ohio, and Kentucky. Therefore, the closest body of water to the individual project sites will vary. However, no bodies of water will be impacted by the proposed project.

b. What sources would supply potable and process water for the proposed project?

No potable or process water will be needed for the proposed project.

c. Quantify the daily or annual amount of wastewater that would be generated by the proposed project.

No wastewater will be generated by the proposed project.

d. Identify the local treatment facility that would receive wastewater from the proposed project.
☒ No discharges to local treatment facility

e. Describe how wastewater would be collected and treated.

No wastewater will be generated by the proposed project.

f. Would any run-off or leachates be produced from storage piles or waste disposal sites?
☒ No ☐ Yes (describe source)

g. Would project require issuance of new or modified water permits to perform project work or site development activities?
☒ No ☐ Yes (describe)

h. Where would wastewater effluents from the proposed project be discharged?
☒ No wastewater produced

i. Would the proposed project be permitted to discharge effluents into an existing body of water?
☒ No ☐ Yes (describe water use and effluent impact)

j. Would a new or modified National Pollutant Discharge Elimination System (NPDES) permit be required?
☒ No ☐ Yes (describe)

k. Would the proposed project adversely affect the quality or movement of groundwater?
☒ No ☐ Yes (describe)

8. **Solid and Hazardous Wastes**

a. Identify and estimate major nonhazardous solid wastes that would be generated from the project. Solid wastes are defined as any solid, liquid, semi-solid, or contained gaseous material that is discarded or has served its intended purpose, or is a manufacturing or mining by-product (40 CFR 260, Appendix I).

The proposed project will generate approximately 1.4 million obsolete meters from customer facilities and homes as they are replaced with smart meters.

b. Would project require issuance of new or modified solid waste and/or hazardous waste related permits to perform project work activities?
☒ No ☐ Yes (explain)

c. How and where would solid waste disposal be accomplished?
☐ On-site (identify and describe location)
☒ Off-site (identify location and describe facility and treatment)

All waste generated (i.e., meters) would be either refurbished and reused, disposed of through a salvage agreement or through an electronic recycling program that is compliant with EPA's responsible recycling guidelines as well as all legal requirements.

d. How would wastes for disposal be transported?

Any solid wastes (i.e., meters) generated during the proposed project will be transported for disposal by approved transport.

e. Describe and estimate the quantity of hazardous wastes (40 CFR 261.31) that would be generated, used, or stored under this project.
☒ None

f. How would hazardous or toxic waste be collected and stored?

☒ None used or produced

g. If hazardous wastes would require off-site disposal, have arrangements been made with a certified TSD (Treatment, Storage, and Disposal) facility?
☒ Not required ☐ Arrangements not yet made ☐ Arrangements made with a certified TSD facility (identify):

C. DESCRIBE ANY ISSUES THAT WOULD GENERATE PUBLIC CONTROVERSY REGARDING THE PROPOSED PROJECT.
☒ None

D. WOULD THE PROPOSED PROJECT PRODUCE ADDITIONAL DEVELOPMENT, OR ARE OTHER MAJOR DEVELOPMENTS PLANNED OR UNDERWAY, IN THE PROJECT AREA?
☒ No ☐ Yes (describe)

E. SUMMARIZE THE SIGNIFICANT IMPACTS THAT WOULD RESULT FROM THE PROPOSED PROJECT.
☒ None (provide supporting detail) *No significant impacts* ☐ Significant impacts (describe)

IV. Categorical Exclusion (CX) Project Identification

A. List any Categorical Exclusions that would apply to the project and a short summary of the project activities that would apply to the CX.

For example;

Categorical Exclusion B.4.6, Additions or modifications to electric power transmission facilities that would not affect the environment beyond the previously developed facility area including, but not limited to, switchyard rock grounding upgrades, secondary containment projects, paving projects, seismic upgrading, tower modifications, changing insulators, and replacement of poles, circuit breakers, conductors, transformers, and cross arms" would encompass the following proposed activities: [applicant description].

General Administration/Management- A.1 through A.15

Facility Operations -B.1

Safety and Health- B.2

Site Monitoring and General Research -B.3

Power Marketing and Power Resources-B.4

Duke Energy believes that our Duke Energy Smart Grid Deployment project qualifies under the following categorical

exclusions:

- *B5.1 Actions to conserve energy*

> *"B5.1 Actions to conserve energy, demonstrate potential energy conservation, and promote energy-efficiency that do not increase the indoor concentrations of potentially harmful substances. These actions may involve financial and technical assistance to individuals (such as builders, owners, consultants, designers), organizations (such as utilities), and state and local governments. Covered actions include, but are not limited to: programmed lowering of thermostat settings, placement of timers on hot water heaters, installation of solar hot water systems, installation of efficient lighting, improvements in generator efficiency and appliance efficiency ratings, development of energy-efficient manufacturing or industrial practices, and small-scale conservation and renewable energy research and development and pilot projects. The actions could involve building renovations or new structures in commercial, residential, agricultural, or industrial sectors. These actions do not include rulemakings; standard-settings, or proposed DOE legislation."*

Duke Energy's project meets this categorical exclusion because it will create a unique regional Smart Grid distribution backbone. It will also demonstrate end-to-end functionality through integration of AMI, Distribution Automation, Energy Efficiency Programs and other pilot scale customer initiatives. Smart Grid will allow more renewables onto the electric grid. Customers will have access to real-time data and pricing, which will encourage them to conserve energy. Smart Grid will enable the offering of many energy efficiency conservation and demand response programs, including load control of appliances and plug-in electric vehicles.

- *B4.6 Additions/modifications to electric power transmission facilities within previously developed area*

> *"B4.6 Additions or modifications to electric power transmission facilities that would not affect the environment beyond the previously developed facility area including, but not limited to, switchyard rock grounding upgrades, secondary containment projects, paving projects, seismic upgrading, tower modifications, changing insulators, and replacement of poles, circuit breakers, conductors, transformers, and crossarms".*

Duke Energy's project meets this categorical exclusion because it includes the installation of distributed automation equipment and relays on the Company's electric distribution and the installation of new smart meters on customer's homes and businesses.

Conservation, Fossil, and Renewable Energy Activities-B.5

Environmental Restoration/Waste Minimization-B.6

International Activities- B.7

B. Are any portions or the proposed scope of work or activities that impact workers, the public or the environment not included in the CX (s) identified above?

☐ Yes

☒ No (Explain)

C. Would the proposed action violate any ES& H requirements, or any other actions listed at 10 CFR Part 1021 Subpart D (B) Conditions that are Integral Elements of the Classes of Actions in Appendix B?

☐ Yes

☒ No (Explain)

V. CERTIFICATION BY PROPOSER

I hereby certify that the information provided herein is current, accurate, and complete as of the date shown immediately below.

SIGNATURE: Angela M Grooms DATE: 08 / 05 / 09
month day year

TYPED NAME: Angela Grooms

TITLE: Director EHS Integration and Governance

ORGANIZATION: Corporate EHS Services, Duke Energy

Kelley A. Karn
Associate General Counsel
1000 E. Main Street
Plainfield, Indiana 46168
317-838-2461
317-838-1842 fax
Kelley.Karn@duke-energy.com

September 22, 2009

Ms. Donna Williams
Contracting Officer
Donna.Williams@hq.doe.gov
Office of HQ PS (HQ)
U.S. Department of Energy
Office of Headquarters Procurement
MA-64
1000 Independence Ave., S.W.
Washington, DC 20585

VIA Email and U.S. Mail

Subject: Supplemental Appendix 9 Certifications for Duke Energy Carolinas, LLC Application under DE-FOA-0000058

Dear Ms. Williams:

Duke Energy Carolinas, LLC (Duke Energy) respectfully submits a supplemental Appendix 9 (Certifications) to its PMU Deployment and Communication System Modernization application.

The only information supplemented is the attachment of an Explanatory Statement page to the Certification of Debarment, Suspension, and Other Responsibility Matters and new signature pages. Duke Energy has provided a similar Explanatory Statement in other subsequent Department of Energy (DOE) applications which have required this certification and in the interest of ensuring DOE has consistent information for each application, we respectfully submit this supplemental appendix.

We apologize for the delay in providing the Explanatory Statement. We prepared and submitted it as soon as the omission was discovered. We accordingly respectfully request that DOE treat this submission as a supplement to its August 6, 2009 application. Please feel free to contact me if you have any questions.

Sincerely,

Kelley Karn

U.S. DEPARTMENT OF ENERGY

FINANCIAL ASSISTANCE CERTIFICATIONS AND ASSURANCES FOR USE WITH SF 424

Applicant: Duke Energy Carolinas, LLC

Solicitation No.: DE-FOA-0000058

The following certifications and assurances must be completed and submitted with each application for financial assistance. The name of the person responsible for making the certifications and assurances must be typed in the signature block on the forms.

Certifications Regarding Lobbying; Debarment, Suspension and Other Responsibility Matters; and Drug Free Workplace Requirements

DOE F 1600.5, Assurance of Compliance Nondiscrimination in Federally Assisted Programs

CERTIFICATIONS REGARDING LOBBYING; DEBARMENT, SUSPENSION AND OTHER RESPONSIBILITY MATTERS; AND DRUG FREE WORKPLACE REQUIREMENTS

Applicants should refer to the regulations cited below to determine the certification to which they are required to attest. Applicants should also review the instructions for certification included in the regulations before completing this form. Signature of this form provides for compliance with certification requirements under 10 CFR Part 601 "New Restrictions on Lobbying," 10 CFR Part 606 "Governmentwide Debarment and Suspension (Nonprocurement) and 10 CFR Part 607 "Governmentwide Requirements for Drug-Free Workplace (Grants)." The certifications shall be treated as a material representation of fact upon which reliance will be placed when the Department of Energy determines to award the covered transaction, grant, or cooperative agreement.

1. LOBBYING

The undersigned certifies, to the best of his or her knowledge and belief, that:

(1) No Federal appropriated funds have been paid or will be paid, by or on behalf of the undersigned, to any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with the awarding of any Federal contract, the making of any Federal grant, the making of any Federal loan, the entering into of any cooperative agreement, and the extension, continuation, renewal, amendment, or modification of any Federal contract, grant, loan, or cooperative agreement.

(2) If any funds other than Federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with this Federal contract, grant, loan, or cooperative agreement, the undersigned shall complete and submit Standard Form-LLL, "Disclosure Form to Report Lobbying," in accordance with its instructions.

(3) The undersigned shall require that the language of this certification be included in the award documents for all subawards at all tiers (including subcontracts, subgrants, and contracts under grants, loans, and cooperative agreements) and that all subrecipients shall certify and disclose accordingly.

This certification is a material representation of fact upon which reliance was placed when this transaction was made or entered into. Submission of this certification is a prerequisite for making or entering into this transaction imposed by section 1352, title 31, U.S. Code. Any person who fails to file the required certification shall be subject to a civil penalty of not less than $10,000 and not more than $100,000 for each such failure.

2. ADDITIONAL LOBBYING REPRESENTATION

Applicant organizations which are described in section 501(c)(4) of the Internal Revenue Code of 1986 and engage in lobbying activities after December 31, 1995, are not eligible for the receipt of Federal funds constituting an award, grant, or loan.

As set forth in section 3 of the Lobbying Disclosure Act of 1995 as amended, (2 U.S.C. 1602), lobbying activities are defined broadly to include, among other things, contacts on behalf of an organization with specified employees of the Executive Branch and Congress with regard to Federal legislative, regulatory, and program administrative matters.

Check the appropriate block:

The applicant is an organization described in section 501(c)(4) of the Internal Revenue Code of 1986? ☐ Yes ☒ No

If you checked "Yes" above, check the appropriate block:

The applicant represents that after December 31, 1995 it ☐ has ☐ has not engaged in any lobbying activities as defined in the Lobbying Disclosure Act of 1995, as amended.

3. DEBARMENT, SUSPENSION, AND OTHER RESPONSIBILITY MATTERS

(1) The prospective primary participant certifies to the best of its knowledge and belief, that it and its principals:

(a) Are not presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from covered transactions by any Federal department or agency;

(b) Have not within a three-year period preceding this proposal been convicted of or had a civil judgment rendered against them for commission of fraud or a criminal offense in connection with obtaining, attempting to obtain, or performing a public (Federal, State or local) transaction or contract under a public transaction; violation of Federal or State antitrust statutes or commission of embezzlement, theft, forgery, bribery; falsification or destruction of records, making false statements, or receiving stolen property;

(c) Are not presently indicted for or otherwise criminally or civilly charged by a governmental entity (Federal, State or local) with commission of any of the offenses enumerated in paragraph (1)(b) of this certification; and

(d) Have not within a three-year period preceding this application/proposal had one or more public transactions (Federal, State or local) terminated for cause or default.

(2) Where the prospective primary participant is unable to certify to any of the statements in this certification, such prospective participant shall attach an explanation to this proposal.

4. DRUG-FREE WORKPLACE

This certification is required by the Drug-Free Workplace Act of 1988 (Pub.L. 100-690, Title V, Subtitle D) and is implemented through additions to the Debarment and Suspension regulations, published in the Federal Register on January 31, 1989, and May 25, 1990.

ALTERNATE I (GRANTEES OTHER THAN INDIVIDUALS)

(1) The grantee certifies that it will or will continue to provide a drug-free workplace by:

(a) Publishing a statement notifying employees that the unlawful manufacture, distribution, dispensing, possession, or use of a controlled substance is prohibited in the grantee's workplace and specifying the actions that will be taken against employees for violation of such prohibition;

(b) Establishing an ongoing drug-free awareness program to inform employees about:

(1) The dangers of drug abuse in the workplace;
(2) The grantee's policy of maintaining a drug-free workplace;
(3) Any available drug counseling, rehabilitation, and employee assistance programs; and
(4) The penalties that may be imposed upon employees for drug abuse violations occurring in the workplace;

(c) Making it a requirement that each employee to be engaged in the performance of the grant be given a copy of the statement required by paragraph (a);

(d) Notifying the employee in the statement required by paragraph (a) that, as a condition of employment under the grant, the employee will:

(1) Abide by the terms of the statement; and
(2) Notify the employer in writing of his or her conviction for a violation of a criminal drug statute occurring in the workplace not later than five calendar days after such conviction;

(e) Notifying the agency, in writing, within ten calendar days after receiving notice under subparagraph (d)(2) from an employee or otherwise receiving actual notice of such conviction. Employers of convicted employees must provide notice, including position title, to every grant officer or other designee on whose grant activity the convicted employee was working, unless the Federal agency has designated a central point for the receipt of such notices. Notice shall include the identification number(s) of each affected grant;

(f) Taking one of the following actions, within 30 calendar days of receiving notice under subparagraph (d)(2), with respect to any employee who is so convicted:

(1) Taking appropriate personnel action against such an employee, up to and including termination, consistent with the requirements of the Rehabilitation Act of 1973, as amended; or
(2) Requiring such employee to participate satisfactorily in a drug abuse assistance or rehabilitation program approved for such purposes by a Federal, State or local health, law enforcement, or other appropriate agency;

(g) Making a good faith effort to continue to maintain a drug- free workplace through implementation of paragraphs (a),(b),(c),(d),(e), and (f).

(2) The grantee may insert in the space provided below the site(s) for the performance of work done in connection with the specific grant:

Place of Performance: (Street address, city, county, state, zip code)

_____

_____

_____

☐ Check if there are workplaces on file that are not identified here.

ALTERNATE II (GRANTEES WHO ARE INDIVIDUALS)

(1) The grantee certifies that, as a condition of the grant, he or she will not engage in the unlawful manufacture, distribution, dispensing, possession, or use of a controlled substance in conducting any activity with the grant.

(2) If convicted of a criminal drug offense resulting from a violation occurring during the conduct of any grant activity, he or she will report the conviction, in writing, within 10 calendar days of the conviction, to every grant officer or other designee, unless the Federal agency designates a central point for the receipt of such notices. When notice is made to such a central point, it shall include the identification number(s) of each affected grant.

5. SIGNATURE

As the duly authorized representative of the applicant, I hereby certify that the applicant will comply with the above certifications.

Name of Applicant: Duke Energy Carolinas, LLC

Printed Name and Title of
Authorized Representative: Marc E. Manly, Chief Legal Officer

Marc E Manly
SIGNATURE

September 21, 2009
DATE

Kelley A. Karn
Associate General Counsel
1000 E. Main Street
Plainfield, Indiana 46168
317-838-2461
317-838-1842 fax
Kelley.Karn@duke-energy.com

September 22, 2009

Ms. Donna Williams
Contracting Officer
Donna.Williams@hq.doe.gov
Office of HQ PS (HQ)
U.S. Department of Energy
Office of Headquarters Procurement
MA-64
1000 Independence Ave., S.W.
Washington, DC 20585

VIA Email and U.S. Mail

Subject: Supplemental Appendix 9 Certifications for Duke Energy Business Services, LLC Application under DE-FOA-0000058

Dear Ms. Williams:

Duke Energy Business Services LLC on behalf of Duke Energy Indiana, Inc., Duke Energy Kentucky, Inc. and Duke Energy Ohio, Inc. (collectively, Duke Energy) respectfully submits a supplemental Appendix 9 (Certifications) to its Midwest Smart Grid Deployment application.

The only information supplemented is the attachment of an Explanatory Statement page to the Certification of Debarment, Suspension, and Other Responsibility Matters and new signature pages. Duke Energy has provided a similar Explanatory Statement in other subsequent Department of Energy (DOE) applications which have required this certification and in the interest of ensuring DOE has consistent information for each application, we respectfully submit this supplemental appendix.

We apologize for the delay in providing the Explanatory Statement. We prepared and submitted it as soon as the omission was discovered. We accordingly respectfully request that DOE treat this submission as a supplement to its August 6, 2009 application. Please feel free to contact me if you have any questions.

Sincerely,

Kelley Karn

U.S. DEPARTMENT OF ENERGY

FINANCIAL ASSISTANCE CERTIFICATIONS AND ASSURANCES FOR USE WITH SF 424

Applicant: Duke Energy Business Services LLC on behalf of Duke Energy Indiana, Inc., Duke Energy Kentucky, Inc. and Duke Energy Ohio, Inc.

Solicitation No.: DE-FOA-0000058

The following certifications and assurances must be completed and submitted with each application for financial assistance. The name of the person responsible for making the certifications and assurances must be typed in the signature block on the forms.

Certifications Regarding Lobbying; Debarment, Suspension and Other Responsibility Matters; and Drug Free Workplace Requirements

DOE F 1600.5, Assurance of Compliance Nondiscrimination in Federally Assisted Programs

CERTIFICATIONS REGARDING LOBBYING; DEBARMENT, SUSPENSION AND OTHER RESPONSIBILITY MATTERS; AND DRUG FREE WORKPLACE REQUIREMENTS

Applicants should refer to the regulations cited below to determine the certification to which they are required to attest. Applicants should also review the instructions for certification included in the regulations before completing this form. Signature of this form provides for compliance with certification requirements under 10 CFR Part 601 "New Restrictions on Lobbying," 10 CFR Part 606 "Governmentwide Debarment and Suspension (Nonprocurement) and 10 CFR Part 607 "Governmentwide Requirements for Drug-Free Workplace (Grants)." The certifications shall be treated as a material representation of fact upon which reliance will be placed when the Department of Energy determines to award the covered transaction, grant, or cooperative agreement.

1. LOBBYING

The undersigned certifies, to the best of his or her knowledge and belief, that:

(1) No Federal appropriated funds have been paid or will be paid, by or on behalf of the undersigned, to any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with the awarding of any Federal contract, the making of any Federal grant, the making of any Federal loan, the entering into of any cooperative agreement, and the extension, continuation, renewal, amendment, or modification of any Federal contract, grant, loan, or cooperative agreement.

(2) If any funds other than Federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with this Federal contract, grant, loan, or cooperative agreement, the undersigned shall complete and submit Standard Form-LLL, "Disclosure Form to Report Lobbying," in accordance with its instructions.

(3) The undersigned shall require that the language of this certification be included in the award documents for all subawards at all tiers (including subcontracts, subgrants, and contracts under grants, loans, and cooperative agreements) and that all subrecipients shall certify and disclose accordingly.

This certification is a material representation of fact upon which reliance was placed when this transaction was made or entered into. Submission of this certification is a prerequisite for making or entering into this transaction imposed by section 1352, title 31, U.S. Code. Any person who fails to file the required certification shall be subject to a civil penalty of not less than $10,000 and not more than $100,000 for each such failure.

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As set forth in section 3 of the Lobbying Disclosure Act of 1995 as amended, (2 U.S.C. 1602), lobbying activities are defined broadly to include, among other things, contacts on behalf of an organization with specified employees of the Executive Branch and Congress with regard to Federal legislative, regulatory, and program administrative matters.

Check the appropriate block:

The applicant is an organization described in section 501(c)(4) of the Internal Revenue Code of 1986? ☐ Yes ☒ No

If you checked "Yes" above, check the appropriate block:

The applicant represents that after December 31, 1995 it ☐ has ☐ has not engaged in any lobbying activities as defined in the Lobbying Disclosure Act of 1995, as amended.

3. DEBARMENT, SUSPENSION, AND OTHER RESPONSIBILITY MATTERS

(1) The prospective primary participant certifies to the best of its knowledge and belief, that it and its principals:

(a) Are not presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from covered transactions by any Federal department or agency;

(b) Have not within a three-year period preceding this proposal been convicted of or had a civil judgment rendered against them for commission of fraud or a criminal offense in connection with obtaining, attempting to obtain, or performing a public (Federal, State or local) transaction or contract under a public transaction; violation of Federal or State antitrust statutes or commission of embezzlement, theft, forgery, bribery; falsification or destruction of records, making false statements, or receiving stolen property;

(c) Are not presently indicted for or otherwise criminally or civilly charged by a governmental entity (Federal, State or local) with commission of any of the offenses enumerated in paragraph (1)(b) of this certification; and

(d) Have not within a three-year period preceding this application/proposal had one or more public transactions (Federal, State or local) terminated for cause or default.

(2) Where the prospective primary participant is unable to certify to any of the statements in this certification, such prospective participant shall attach an explanation to this proposal.

4. DRUG-FREE WORKPLACE

This certification is required by the Drug-Free Workplace Act of 1988 (Pub.L. 100-690, Title V, Subtitle D) and is implemented through additions to the Debarment and Suspension regulations, published in the Federal Register on January 31, 1989, and May 25, 1990.

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(a) Publishing a statement notifying employees that the unlawful manufacture, distribution, dispensing, possession, or use of a controlled substance is prohibited in the grantee's workplace and specifying the actions that will be taken against employees for violation of such prohibition;

(b) Establishing an ongoing drug-free awareness program to inform employees about:

(1) The dangers of drug abuse in the workplace;
(2) The grantee's policy of maintaining a drug-free workplace;
(3) Any available drug counseling, rehabilitation, and employee assistance programs; and
(4) The penalties that may be imposed upon employees for drug abuse violations occurring in the workplace;

(c) Making it a requirement that each employee to be engaged in the performance of the grant be given a copy of the statement required by paragraph (a);

(d) Notifying the employee in the statement required by paragraph (a) that, as a condition of employment under the grant, the employee will:

(1) Abide by the terms of the statement; and
(2) Notify the employer in writing of his or her conviction for a violation of a criminal drug statute occurring in the workplace not later than five calendar days after such conviction;

(e) Notifying the agency, in writing, within ten calendar days after receiving notice under subparagraph (d)(2) from an employee or otherwise receiving actual notice of such conviction. Employers of convicted employees must provide notice, including position title, to every grant officer or other designee on whose grant activity the convicted employee was working, unless the Federal agency has designated a central point for the receipt of such notices. Notice shall include the identification number(s) of each affected grant;

(f) Taking one of the following actions, within 30 calendar days of receiving notice under subparagraph (d)(2), with respect to any employee who is so convicted:

(1) Taking appropriate personnel action against such an employee, up to and including termination, consistent with the requirements of the Rehabilitation Act of 1973, as amended; or
(2) Requiring such employee to participate satisfactorily in a drug abuse assistance or rehabilitation program approved for such purposes by a Federal, State or local health, law enforcement, or other appropriate agency;

(g) Making a good faith effort to continue to maintain a drug- free workplace through implementation of paragraphs (a),(b),(c),(d),(e), and (f).

(2) The grantee may insert in the space provided below the site(s) for the performance of work done in connection with the specific grant:

Place of Performance: (Street address, city, county, state, zip code)

_____

_____

_____

☐ Check if there are workplaces on file that are not identified here.

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(1) The grantee certifies that, as a condition of the grant, he or she will not engage in the unlawful manufacture, distribution, dispensing, possession, or use of a controlled substance in conducting any activity with the grant.

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5. SIGNATURE

As the duly authorized representative of the applicant, I hereby certify that the applicant will comply with the above certifications.

Name of Applicant: Duke Energy Business Services LLC

Printed Name and Title of
Authorized Representative: Marc E. Manly, Chief Legal Officer

Marc E Manly
SIGNATURE

September 21, 2009
DATE

DOE F 1600.5
(06-94)
All Other Editions are Obsolete

U.S. Department of Energy

Assurance of Compliance

Nondiscrimination in Federally Assisted Programs

OMB Control No.
1910-0400

OMB Burden Disclosure Statement

Public reporting burden for this collection of information is estimated to average 15 minutes per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to Office of Information Resources Management Policy, Plans, and Oversight, Records Management Division, HR-422 - GTN, Paperwork Reduction Project (1900-0400), U.S. Department of Energy, 1000 Independence Avenue, S.W., Washington, DC 20585; and to the Office of Management and Budget (OMB), Paperwork Reduction Project (1900-0400), Washington, DC 20503.

Duke Energy Business Services LLC on behalf of Duke Energy Indiana, Inc., Duke Energy Kentucky, Inc. and Duke Energy Ohio, Inc. (Hereinafter called the "Applicant")
HEREBY AGREES to comply with Title VI of the Civil Rights Act of 1964 (Pub. L.88-352), Section 16 of the Federal Energy Administration Act of 1974 (Pub.L.93-275), Section 401 of the Energy Reorganization Act of 1974 (Pub.L.93-438), Title IX of the Education Amendments of 1972, as amended (Pub.L.92-318, Pub.L.93-568, and Pub.L.94-482), Section 504 of the Rehabilitation Act of 1973 (Pub.L.93-112), the Age Discrimination Act of 1975 (Pub.L.94-135), Title VIII of the Civil Rights Act of 1968 (Pub.L.90-284), the Department of Energy Organization Act of 1977 (Pub.L.95-91), and the Energy Conservation and Production Act of 1976, as amended (Pub.L.94-385) and Title 10, Code of Federal Regulations, Part 1040. In accordance with the above laws and regulations issued pursuant thereto, the Applicant agrees to assure that no person in the United States shall, on the ground of race, color, national origin, sex, age, or disability, be excluded from participation in, be denied the benefits of, or be otherwise subjected to discrimination under any program or activity in which the Applicant receives Federal assistance from the Department of Energy.

Applicability and Period of Obligation

In the case of any service, financial aid, covered employment, equipment, property, or structure provided, leased, or improved with Federal assistance extended to the Applicant by the Department of Energy, this assurance obligates the Applicant for the period during which Federal assistance is extended. In the case of any transfer of such service, financial aid, equipment, property, or structure, this assurance obligates the transferee for the period during which Federal assistance is extended. If any personal property is so provided, this assurance obligates the Applicant for the period during which it retains ownership or possession of the property. In all other cases, this assurance obligates the Applicant for the period during which the Federal assistance is extended to the Applicant by the Department of Energy.

Employment Practices

Where a primary objective of the Federal assistance is to provide employment or where the Applicant's employment practices affect the delivery of services in programs or activities resulting from Federal assistance extended by the Department, the Applicant agrees not to discriminate on the ground of race, color, national origin, sex, age, or disability, in its employment practices. Such employment practices may include, but are not limited to, recruitment advertising, hiring, layoff or termination, promotion, demotion, transfer, rates of pay, training and participation in upward mobility programs; or other forms of compensation and use of facilities.

Subrecipient Assurance

The Applicant shall require any individual, organization, or other entity with whom it subcontracts, subgrants, or subleases for the purpose of providing any service, financial aid, equipment, property, or structure to comply with laws cited above. To this end, the subrecipient shall be required to sign a written assurance form, however, the obligation or both recipient and subrecipient to ensure compliance is not relieved by the collection or submission of written assurance forms.

Data Collection and Access to Records

The Applicant agrees to compile and maintain information pertaining to programs or activities developed as a result of the Applicant's receipt of Federal assistance from the Department of Energy. Such information shall include, but is not limited to, the following: (1) the manner in which services are or will be provided and related data necessary for determining whether any persons are or will be denied such services on the basis of prohibited discrimination; (2) the population eligible to be served by race, color, national origin, sex, age, and disability; (3) data regarding covered employment including use or planned use of bilingual public contact employees serving beneficiaries of the program where necessary to permit effective participation by beneficiaries unable to speak or understand English; (4) the location of existing or proposed facilities connected with the program and related information adequate for determining whether the location has or will have the effect of unnecessarily denying access to any person on the basis of prohibited discrimination; (5) the present or proposed membership by race, color, national origin, sex, age, and disability, in any planning or advisory body which is an integral part of the program; and (6) any additional written data determined by the Department of Energy to be relevant to its obligation to assure compliance by recipients with laws cited in the first paragraph of this assurance.

DE-FOA-0000058
Appendix 9

DOE F 1600.5
(06-94)
All Other Editions are Obsolete

1910-0400

The Applicant agrees to submit requested data to the Department of Energy regarding programs and activities developed by the Applicant from the use of Federal assistance funds extended by the Department of Energy, Facilities of the Applicant (including the physical plants, building, or other structures) and all records, books, accounts, and other sources of information pertinent to the Applicant's compliance with the civil rights laws shall be made available for inspection during normal business hours on request of an officer or employee of the Department of Energy specifically authorized to make such inspections. Instructions in this regard will be provided by the Director, Office of Civil Rights, U.S. Department of Energy.

This assurance is given in consideration of and for the purpose of obtaining any and all Federal grants, loans, contracts (excluding procurement contracts), property, discounts or other Federal assistance extended after the date hereto, to the Applicants by the Department of Energy, including installment payments on account after such date of application for Federal assistance which are approved before such date. The Applicant recognizes and agrees that such Federal assistance will be extended in reliance upon the representation and agreements made in this assurance and that the United States shall have the right to seek judicial enforcement of this assurance. This assurance is binding on the Applicant, the successors, transferees, and assignees, as well as the person(s) whose signature appears below and who are authorized to sign this assurance on behalf of the Applicant.

Applicant Certification

The Applicant certifies that it has complied, or that, within 90 days of the date of the grant, it will comply with all applicable requirements of 10 C.F.R. § 1040.5 (a copy will be furnished to the Applicant upon written request to DOE).

Designated Responsible Employee

Marc E. Manly, Chief Legal Officer
Name and Title (Printed to Typed)

(704) 382 - 2204
Telephone Number

Marc E. Manly
Signature

September 21, 2009
Date

Duke Energy Business Services LLC
Applicant's Name

(800) 488 - 3853
Telephone Number

526 S. Church St.
Address:

September 21, 2009
Date

Charlotte, NC, 28285

Authorized Official:
President, Chief Executive Officer
or Authorized Designee

Marc E. Manly, Chief Legal Officer
Name and Title (Printed to Typed)

(704) 382 - 2204
Telephone Number

Marc E. Manly
Signature

September 21, 2009
Date

EXPLANATION REQUIRED BY
CERTIFICATIONS FOR USE WITH
DUKE ENERGY BUSINESS SERVICES LLC APPLICATIONS FOR
SMART GRID INVESTMENT GRANT
DE-FOA-0000058

1. The applicant provides the following information in the interest of full disclosure and not as a requirement for this certificate or as any admission:

a. The Missouri Public Service Commission is a plaintiff in *Missouri Public Service Commission v. ONEOK, Inc., et al.*, No. 0616-27565, Div. 6 (Mo. Cir. Ct.). This suit was filed on October 8, 2006, in the Circuit Court of Jackson County, Missouri, against certain affiliates of applicant, Duke Energy Corporation (now known as Duke Energy Carolinas, LLC) and its affiliate, Duke Energy Trading and Marketing, LLC, along with numerous other energy companies. Plaintiff claims it is the assignee of various local gas distribution companies (LDC's) and alleges that defendants, alone and in concert with others, manipulated the natural gas markets by various means, including providing false information to natural gas trade publications and unlawfully exchanging information, resulting in artificially high natural gas prices paid by the LDC's. In an attempt to avoid a statute of limitations defense, plaintiff alleges that defendants violated state antitrust laws and engaged in fraudulent concealment of their activities. Plaintiff seeks class certification, unspecified statutory damages, attorney's fees and costs, and other appropriate relief. The Duke Energy defendants have been dismissed from the case. In February, 2009, Plaintiffs filed their notice of appeal of the order dismissing Duke Energy Trading and Marketing, LLC.

b. The Topeka Unified School District 501 is a plaintiff in *Learjet, Inc., et al. v. ONEOK, Inc., et al.*, No. 2:06-cv-00233-PMP-PAL (D. Nev.). On September 26, 2005, plaintiffs filed a class action petition in state court in Wyandotte County, Kansas against certain affiliates of applicant, Duke Energy Corporation (now Duke Energy Carolinas, LLC) and its affiliate, Duke Energy Trading and Marketing, L.L.C, as well as other energy companies, claiming that plaintiffs were harmed by defendants' alleged manipulation of the natural gas markets by various means in the 2000 through 2002 time frame, including providing false information to natural gas trade publications and entering into unlawful arrangements and agreements. The plaintiffs claim the defendants violated Kansas' antitrust laws and seek compensatory and statutory damages in unspecified amounts. This lawsuit was removed and transferred to Nevada in MDL 1566. On February 23, 2009, the court dismissed Duke Energy Carolinas, LLC (formerly Duke Energy Corporation) from the case.

c. In addition to the 2 cases described above, a total of 11 other lawsuits have been filed against Duke Energy Corporation (now known as Duke

Energy Carolinas, LLC) and its affiliate, Duke Energy Trading and Marketing, LLC (DETM), along with numerous other energy companies. Ten of these cases (plus the *Learjet* case) have been consolidated into the MDL proceeding in Nevada. DETM was dismissed from one of the cases in January, 2009. In February 2009, Duke Energy Carolinas was also dismissed from that case as well as four others of the consolidated cases. One case was filed in Tennessee state court, which dismissed the case. The Tennessee Court of Appeals reversed and the case is on appeal to the Tennessee Supreme Court. Each of these cases contains similar claims, that the respective plaintiffs, and the classes they claim to represent, were harmed by the defendants' alleged manipulation of the natural gas markets by various means, including providing false information to natural gas trade publications and entering into unlawful arrangements and agreements in violation of the antitrust laws of the respective states. Plaintiffs seek damages in unspecified amounts. In September, 2009, settlement was finalized with the class plaintiffs in five of the consolidated cases.

d. In January 2008, four plaintiffs, including individual, industrial and non-profit customers, filed a lawsuit against Duke Energy Ohio in federal court in the Southern District of Ohio. Plaintiffs allege that Duke Energy Ohio (then The Cincinnati Gas & Electric Company (CG&E)), conspired to provide inequitable and unfair price advantages for certain large business consumers by entering into non-public option agreements with such consumers in exchange for their withdrawal of challenges to Duke Energy Ohio's (then CG&E's) pending RSP, which was implemented in early 2005.. Plaintiffs also contend that the contracts at issue were an illegal rebate which violate antitrust and Racketeer Influenced and Corrupt Organizations (RICO) statutes. Duke Energy Ohio denies the allegations made in the lawsuit. On March 31, 2009, the District Court granted Duke Energy Ohio's motion to dismiss. Plaintiffs have filed a motion to alter or set aside the judgment.

e. An affiliate of applicant, DEGS of Narrows, LLC (formerly known as Cinergy Solutions of Narrows), owns and operates a power plant and ancillary assets located at the Celanese Acetate facility in Narrows, Virginia. The power plant operations are subject to a Title V permit issued by Virginia Department of Environmental Quality to DEGS of Narrows, LLC. The operation is also subject to the NOx Budget Trading Program, and the Leak Detection and Repair Program ("LDAR").

DEGS of Narrows is required by state and federal law to maintain a continuous emissions monitoring system ("CEMS") to monitor heat input and NOx emissions during the ozone season, including the performance of certain linearity tests. In the third quarter of 2006, while reviewing third quarter linearity test results generated by the Facility's trained Instrumentation & Controls Technician, the Air Management Group of Duke Energy's Environmental Department identified some irregularities in the information being reported. Because these potential violations involve both federal and state laws and

regulations, voluntary self-disclosures were made to both the US Environmental Protection Agency ("EPA") and the Virginia Department of Environmental Quality on December 22, 2006.

On December 10, 2007, DEGS of Narrows received a Notice of Violation ("NOV") from the EPA, which asserted various violations consistent with the self-disclosures described above. The NOV asserts that DEGS of Narrows failed to monitor equipment subject to the LDAR program and failed to set pressure relief devices at the level required by LDAR.

In addition, the United States Department of Justice ("DOJ") commenced criminal investigations of DEGS of Narrows, LLC, its personnel and/or third party contractors in connection with both the CEMS and LDAR alleged violations. By letter dated March 20, 2009, the DOJ communicated that it had dropped its criminal investigation of DEGS of Narrows, LLC on all alleged violations.

f. In 2001, a criminal case was commenced in Peru regarding alleged forgery of a reporting document submitted by two former employees of a Duke affiliate in Peru to the electric regulatory authorities in Peru. Judgment was entered against both defendants; however, the case against one defendant was ultimately closed by the court without any remedial action being taken. The case against the other defendant is still open, but no action has yet been taken against him.

g. In December 1999, Duke Energy International Brazil Ltda ("DEIB") issued a floating rate note ("FRN") to fund the acquisition of Duke Energy International, Geracao Paranapanema, S.A. ("DEIGP"). At that time, in an attempt to promote foreign investment in Brazil, the government had passed legislation providing for a withholding tax exemption on payment of interest for certain floating rate notes as defined in the legislation. DEIB issued the FRN pursuant to the law, and the FRN was approved by and registered with the Brazilian Central Bank. In November 2008, as a result of a regular course audit by the Brazilian taxing authorities, DEIB received a R$282 million (approximately US$ 140 million) assessment in connection with the FRN. Among other allegations, the taxing authority claims that DEIB defrauded the government and attributes a portion of the assessment to that alleged fraud. DEIB believes the claims are without merit and has challenged the fines and the allegations in the Brazilian administrative tax court. On July 31, 2009, the Brazilian taxing authorities ruled in DEIB's favor, confirming the arguments of our defense, i.e., that the FRNs issued by DEIB are valid and lawful and the allegation of fraud by the taxing authorities has been ruled groundless. An appeal of this decision by the taxing authority is mandatory.

DE-FOA-0000058
Appendix 9

DOE F 1600.5
(06-94)
All Other Editions are Obsolete

U.S. Department of Energy

Assurance of Compliance

Nondiscrimination in Federally Assisted Programs

OMB Control No.
1910-0400

OMB Burden Disclosure Statement

Public reporting burden for this collection of information is estimated to average 15 minutes per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to Office of Information Resources Management Policy, Plans, and Oversight, Records Management Division, HR-422 - GTN, Paperwork Reduction Project (1900-0400), U.S. Department of Energy, 1000 Independence Avenue, S.W., Washington, DC 20585; and to the Office of Management and Budget (OMB), Paperwork Reduction Project (1900-0400), Washington, DC 20503.

Duke Energy Carolinas, LLC (Hereinafter called the "Applicant")

HEREBY AGREES to comply with Title VI of the Civil Rights Act of 1964 (Pub. L.88-352), Section 16 of the Federal Energy Administration Act of 1974 (Pub.L.93-275), Section 401 of the Energy Reorganization Act of 1974 (Pub.L.93-438), Title IX of the Education Amendments of 1972, as amended (Pub.L.92-318, Pub.L.93-568, and Pub.L.94-482), Section 504 of the Rehabilitation Act of 1973 (Pub.L.93-112), the Age Discrimination Act of 1975 (Pub.L.94-135), Title VIII of the Civil Rights Act of 1968 (Pub.L.90-284), the Department of Energy Organization Act of 1977 (Pub.L.95-91), and the Energy Conservation and Production Act of 1976, as amended (Pub.L.94-385) and Title 10, Code of Federal Regulations, Part 1040. In accordance with the above laws and regulations issued pursuant thereto, the Applicant agrees to assure that no person in the United States shall, on the ground of race, color, national origin, sex, age, or disability, be excluded from participation in, be denied the benefits of, or be otherwise subjected to discrimination under any program or activity in which the Applicant receives Federal assistance from the Department of Energy.

Applicability and Period of Obligation

In the case of any service, financial aid, covered employment, equipment, property, or structure provided, leased, or improved with Federal assistance extended to the Applicant by the Department of Energy, this assurance obligates the Applicant for the period during which Federal assistance is extended. In the case of any transfer of such service, financial aid, equipment, property, or structure, this assurance obligates the transferee for the period during which Federal assistance is extended. If any personal property is so provided, this assurance obligates the Applicant for the period during which it retains ownership or possession of the property. In all other cases, this assurance obligates the Applicant for the period during which the Federal assistance is extended to the Applicant by the Department of Energy.

Employment Practices

Where a primary objective of the Federal assistance is to provide employment or where the Applicant's employment practices affect the delivery of services in programs or activities resulting from Federal assistance extended by the Department, the Applicant agrees not to discriminate on the ground of race, color, national origin, sex, age, or disability, in its employment practices. Such employment practices may include, but are not limited to, recruitment advertising, hiring, layoff or termination, promotion, demotion, transfer, rates of pay, training and participation in upward mobility programs; or other forms of compensation and use of facilities.

Subrecipient Assurance

The Applicant shall require any individual, organization, or other entity with whom it subcontracts, subgrants, or subleases for the purpose of providing any service, financial aid, equipment, property, or structure to comply with laws cited above. To this end, the subrecipient shall be required to sign a written assurance form, however, the obligation or both recipient and subrecipient to ensure compliance is not relieved by the collection or submission of written assurance forms.

Data Collection and Access to Records

The Applicant agrees to compile and maintain information pertaining to programs or activities developed as a result of the Applicant's receipt of Federal assistance from the Department of Energy. Such information shall include, but is not limited to, the following: (1) the manner in which services are or will be provided and related data necessary for determining whether any persons are or will be denied such services on the basis of prohibited discrimination; (2) the population eligible to be served by race, color, national origin, sex, age, and disability; (3) data regarding covered employment including use or planned use of bilingual public contact employees serving beneficiaries of the program where necessary to permit effective participation by beneficiaries unable to speak or understand English; (4) the location of existing or proposed facilities connected with the program and related information adequate for determining whether the location has or will have the effect of unnecessarily denying access to any person on the basis of prohibited discrimination; (5) the present or proposed membership by race, color, national origin, sex, age, and disability, in any planning or advisory body which is an integral part of the program; and (6) any additional written data determined by the Department of Energy to be relevant to its obligation to assure compliance by recipients with laws cited in the first paragraph of this assurance.

OMB Control No.

DOE F 1600.5
(06-94)
All Other Editions are Obsolete

1910-0400

The Applicant agrees to submit requested data to the Department of Energy regarding programs and activities developed by the Applicant from the use of Federal assistance funds extended by the Department of Energy, Facilities of the Applicant (including the physical plants, building, or other structures) and all records, books, accounts, and other sources of information pertinent to the Applicant's compliance with the civil rights laws shall be made available for inspection during normal business hours on request of an officer or employee of the Department of Energy specifically authorized to make such inspections. Instructions in this regard will be provided by the Director, Office of Civil Rights, U.S. Department of Energy.

This assurance is given in consideration of and for the purpose of obtaining any and all Federal grants, loans, contracts (excluding procurement contracts), property, discounts or other Federal assistance extended after the date hereto, to the Applicants by the Department of Energy, including installment payments on account after such data of application for Federal assistance which are approved before such date. The Applicant recognizes and agrees that such Federal assistance will be extended in reliance upon the representation and agreements made in this assurance and that the United States shall have the right to seek judicial enforcement of this assurance. This assurance is binding on the Applicant, the successors, transferees, and assignees, as well as the person(s) whose signature appears below and who are authorized to sign this assurance on behalf of the Applicant.

Applicant Certification

The Applicant certifies that it has complied, or that, within 90 days of the date of the grant, it will comply with all applicable requirements of 10 C.F.R. § 1040.5 (a copy will be furnished to the Applicant upon written request to DOE).

Designated Responsible Employee

Marc E. Manly, Chief Legal Officer
Name and Title (Printed to Typed)

(704) 382 - 2204
Telephone Number

Marc E Manly
Signature

September 21, 2009
Date

Duke Energy Carolinas, LLC
Applicant's Name

(800) 488 - 3853
Telephone Number

526 S. Church St.
Address:

September 21, 2009
Date

Charlotte, NC, 28285

Authorized Official:
President, Chief Executive Officer
or Authorized Designee

Marc E. Manly, Chief Legal Officer
Name and Title (Printed to Typed)

(704) 382 - 2204
Telephone Number

Marc E Manly
Signature

September 21, 2009
Date

EXPLANATION REQUIRED BY
CERTIFICATIONS FOR USE WITH DUKE ENERGY CAROLINAS, LLC
APPLICATIONS FOR SMART GRID INVESTMENT GRANT
DE-FOA-0000058

1. The applicant provides the following information in the interest of full disclosure and not as a requirement for this certificate or as any admission:

a. The Missouri Public Service Commission is a plaintiff in *Missouri Public Service Commission v. ONEOK, Inc., et al.*, No. 0616-27565, Div. 6 (Mo. Cir. Ct.). This suit was filed on October 8, 2006, in the Circuit Court of Jackson County, Missouri, against applicant, Duke Energy Corporation (now known as Duke Energy Carolinas, LLC) and its affiliate, Duke Energy Trading and Marketing, LLC, along with numerous other energy companies. Plaintiff claims it is the assignee of various local gas distribution companies (LDC's) and alleges that defendants, alone and in concert with others, manipulated the natural gas markets by various means, including providing false information to natural gas trade publications and unlawfully exchanging information, resulting in artificially high natural gas prices paid by the LDC's. In an attempt to avoid a statute of limitations defense, plaintiff alleges that defendants violated state antitrust laws and engaged in fraudulent concealment of their activities. Plaintiff seeks class certification, unspecified statutory damages, attorney's fees and costs, and other appropriate relief. The Duke Energy defendants have been dismissed from the case. In February, 2009, Plaintiffs filed their notice of appeal of the order dismissing Duke Energy Trading and Marketing, LLC.

b. The Topeka Unified School District 501 is a plaintiff in *Learjet, Inc., et al. v. ONEOK, Inc., et al.*, No. 2:06-cv-00233-PMP-PAL (D. Nev.). On September 26, 2005, plaintiffs filed a class action petition in state court in Wyandotte County, Kansas against applicant, Duke Energy Corporation (now Duke Energy Carolinas, LLC) and its affiliate, Duke Energy Trading and Marketing, L.L.C, as well as other energy companies, claiming that plaintiffs were harmed by defendants' alleged manipulation of the natural gas markets by various means in the 2000 through 2002 time frame, including providing false information to natural gas trade publications and entering into unlawful arrangements and agreements. The plaintiffs claim the defendants violated Kansas' antitrust laws and seek compensatory and statutory damages in unspecified amounts. This lawsuit was removed and transferred to Nevada in MDL 1566. On February 23, 2009, the court dismissed Duke Energy Carolinas, LLC (formerly Duke Energy Corporation) from the case.

c. In addition to the 2 cases described above, a total of 11 other lawsuits have been filed against applicant Duke Energy Corporation (now known as Duke Energy Carolinas, LLC) and its affiliate, Duke Energy Trading and Marketing, LLC (DETM), along with numerous other energy companies. Ten of

these cases (plus the *Learjet* case) have been consolidated into the MDL proceeding in Nevada. DETM was dismissed from one of the cases in January, 2009. In February 2009, applicant was also dismissed from that case as well as four others of the consolidated cases. One case was filed in Tennessee state court, which dismissed the case. The Tennessee Court of Appeals reversed and the case is on appeal to the Tennessee Supreme Court. Each of these cases contains similar claims, that the respective plaintiffs, and the classes they claim to represent, were harmed by the defendants' alleged manipulation of the natural gas markets by various means, including providing false information to natural gas trade publications and entering into unlawful arrangements and agreements in violation of the antitrust laws of the respective states. Plaintiffs seek damages in unspecified amounts. In September, 2009, settlement was finalized with the class plaintiffs in five of the consolidated cases.

d. In January 2008, four plaintiffs, including individual, industrial and non-profit customers, filed a lawsuit against Duke Energy Ohio in federal court in the Southern District of Ohio. Plaintiffs allege that Duke Energy Ohio (then The Cincinnati Gas & Electric Company (CG&E)), conspired to provide inequitable and unfair price advantages for certain large business consumers by entering into non-public option agreements with such consumers in exchange for their withdrawal of challenges to Duke Energy Ohio's (then CG&E's) pending RSP, which was implemented in early 2005.. Plaintiffs also contend that the contracts at issue were an illegal rebate which violate antitrust and Racketeer Influenced and Corrupt Organizations (RICO) statutes. Duke Energy Ohio denies the allegations made in the lawsuit. On March 31, 2009, the District Court granted Duke Energy Ohio's motion to dismiss. Plaintiffs have filed a motion to alter or set aside the judgment.

e. An affiliate of applicant, DEGS of Narrows, LLC (formerly known as Cinergy Solutions of Narrows), owns and operates a power plant and ancillary assets located at the Celanese Acetate facility in Narrows, Virginia. The power plant operations are subject to a Title V permit issued by Virginia Department of Environmental Quality to DEGS of Narrows, LLC. The operation is also subject to the NOx Budget Trading Program, and the Leak Detection and Repair Program ("LDAR").

DEGS of Narrows is required by state and federal law to maintain a continuous emissions monitoring system ("CEMS") to monitor heat input and NOx emissions during the ozone season, including the performance of certain linearity tests. In the third quarter of 2006, while reviewing third quarter linearity test results generated by the Facility's trained Instrumentation & Controls Technician, the Air Management Group of Duke Energy's Environmental Department identified some irregularities in the information being reported. Because these potential violations involve both federal and state laws and regulations, voluntary self-disclosures were made to both the US Environmental

Protection Agency ("EPA") and the Virginia Department of Environmental Quality on December 22, 2006.

On December 10, 2007, DEGS of Narrows received a Notice of Violation ("NOV") from the EPA, which asserted various violations consistent with the self-disclosures described above. The NOV asserts that DEGS of Narrows failed to monitor equipment subject to the LDAR program and failed to set pressure relief devices at the level required by LDAR.

In addition, the United States Department of Justice ("DOJ") commenced criminal investigations of DEGS of Narrows, LLC, its personnel and/or third party contractors in connection with both the CEMS and LDAR alleged violations. By letter dated March 20, 2009, the DOJ communicated that it had dropped its criminal investigation of DEGS of Narrows, LLC on all alleged violations.

f. In 2001, a criminal case was commenced in Peru regarding alleged forgery of a reporting document submitted by two former employees of a Duke affiliate in Peru to the electric regulatory authorities in Peru. Judgment was entered against both defendants; however, the case against one defendant was ultimately closed by the court without any remedial action being taken. The case against the other defendant is still open, but no action has yet been taken against him.

g. In December 1999, Duke Energy International Brazil Ltda ("DEIB") issued a floating rate note ("FRN") to fund the acquisition of Duke Energy International, Geracao Paranapanema, S.A. ("DEIGP"). At that time, in an attempt to promote foreign investment in Brazil, the government had passed legislation providing for a withholding tax exemption on payment of interest for certain floating rate notes as defined in the legislation. DEIB issued the FRN pursuant to the law, and the FRN was approved by and registered with the Brazilian Central Bank. In November 2008, as a result of a regular course audit by the Brazilian taxing authorities, DEIB received a R$282 million (approximately US$ 140 million) assessment in connection with the FRN. Among other allegations, the taxing authority claims that DEIB defrauded the government and attributes a portion of the assessment to that alleged fraud. DEIB believes the claims are without merit and has challenged the fines and the allegations in the Brazilian administrative tax court. On July 31, 2009, the Brazilian taxing authorities ruled in DEIB's favor, confirming the arguments of our defense, i.e., that the FRNs issued by DEIB are valid and lawful and the allegation of fraud by the taxing authorities has been ruled groundless. An appeal of this decision by the taxing authority is mandatory.

U.S. DEPARTMENT OF ENERGY

FINANCIAL ASSISTANCE CERTIFICATIONS AND ASSURANCES FOR USE WITH SF 424

Applicant: Duke Energy Business Services LLC on behalf of Duke Energy Indiana, Inc., Duke Energy Kentucky, Inc. and Duke Energy Ohio, Inc.

Solicitation No.: DE-FOA-0000058

The following certifications and assurances must be completed and submitted with each application for financial assistance. The name of the person responsible for making the certifications and assurances must be typed in the signature block on the forms.

Certifications Regarding Lobbying; Debarment, Suspension and Other Responsibility Matters; and Drug Free Workplace Requirements

DOE F 1600.5, Assurance of Compliance Nondiscrimination in Federally Assisted Programs

CERTIFICATIONS REGARDING LOBBYING; DEBARMENT, SUSPENSION AND OTHER RESPONSIBILITY MATTERS; AND DRUG FREE WORKPLACE REQUIREMENTS

Applicants should refer to the regulations cited below to determine the certification to which they are required to attest. Applicants should also review the instructions for certification included in the regulations before completing this form. Signature of this form provides for compliance with certification requirements under 10 CFR Part 601 "New Restrictions on Lobbying," 10 CFR Part 606 "Governmentwide Debarment and Suspension (Nonprocurement) and 10 CFR Part 607 "Governmentwide Requirements for Drug-Free Workplace (Grants)." The certifications shall be treated as a material representation of fact upon which reliance will be placed when the Department of Energy determines to award the covered transaction, grant, or cooperative agreement.

1. LOBBYING

The undersigned certifies, to the best of his or her knowledge and belief, that:

(1) No Federal appropriated funds have been paid or will be paid, by or on behalf of the undersigned, to any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with the awarding of any Federal contract, the making of any Federal grant, the making of any Federal loan, the entering into of any cooperative agreement, and the extension, continuation, renewal, amendment, or modification of any Federal contract, grant, loan, or cooperative agreement.

(2) If any funds other than Federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with this Federal contract, grant, loan, or cooperative agreement, the undersigned shall complete and submit Standard Form-LLL, "Disclosure Form to Report Lobbying," in accordance with its instructions.

(3) The undersigned shall require that the language of this certification be included in the award documents for all subawards at all tiers (including subcontracts, subgrants, and contracts under grants, loans, and cooperative agreements) and that all subrecipients shall certify and disclose accordingly.

This certification is a material representation of fact upon which reliance was placed when this transaction was made or entered into. Submission of this certification is a prerequisite for making or entering into this transaction imposed by section 1352, title 31, U.S. Code. Any person who fails to file the required certification shall be subject to a civil penalty of not less than $10,000 and not more than $100,000 for each such failure.

2. ADDITIONAL LOBBYING REPRESENTATION

Applicant organizations which are described in section 501(c)(4) of the Internal Revenue Code of 1986 and engage in lobbying activities after December 31, 1995, are not eligible for the receipt of Federal funds constituting an award, grant, or loan.

As set forth in section 3 of the Lobbying Disclosure Act of 1995 as amended, (2 U.S.C. 1602), lobbying activities are defined broadly to include, among other things, contacts on behalf of an organization with specified employees of the Executive Branch and Congress with regard to Federal legislative, regulatory, and program administrative matters.

Check the appropriate block:

The applicant is an organization described in section 501(c)(4) of the Internal Revenue Code of 1986? ☐ Yes ☒ No

If you checked "Yes" above, check the appropriate block:

The applicant represents that after December 31, 1995 it ☐ has ☐ has not engaged in any lobbying activities as defined in the Lobbying Disclosure Act of 1995, as amended.

3. DEBARMENT, SUSPENSION, AND OTHER RESPONSIBILITY MATTERS

(1) The prospective primary participant certifies to the best of its knowledge and belief, that it and its principals:

(a) Are not presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from covered transactions by any Federal department or agency;

(b) Have not within a three-year period preceding this proposal been convicted of or had a civil judgment rendered against them for commission of fraud or a criminal offense in connection with obtaining, attempting to obtain, or performing a public (Federal, State or local) transaction or contract under a public transaction; violation of Federal or State antitrust statutes or commission of embezzlement, theft, forgery, bribery; falsification or destruction of records, making false statements, or receiving stolen property;

(c) Are not presently indicted for or otherwise criminally or civilly charged by a governmental entity (Federal, State or local) with commission of any of the offenses enumerated in paragraph (1)(b) of this certification; and

(d) Have not within a three-year period preceding this application/proposal had one or more public transactions (Federal, State or local) terminated for cause or default.

(2) Where the prospective primary participant is unable to certify to any of the statements in this certification, such prospective participant shall attach an explanation to this proposal.

4. DRUG-FREE WORKPLACE

This certification is required by the Drug-Free Workplace Act of 1988 (Pub.L. 100-690, Title V, Subtitle D) and is implemented through additions to the Debarment and Suspension regulations, published in the Federal Register on January 31, 1989, and May 25, 1990.

ALTERNATE I (GRANTEES OTHER THAN INDIVIDUALS)

(1) The grantee certifies that it will or will continue to provide a drug-free workplace by:

(a) Publishing a statement notifying employees that the unlawful manufacture, distribution, dispensing, possession, or use of a controlled substance is prohibited in the grantee's workplace and specifying the actions that will be taken against employees for violation of such prohibition;

(b) Establishing an ongoing drug-free awareness program to inform employees about:

(1) The dangers of drug abuse in the workplace;
(2) The grantee's policy of maintaining a drug-free workplace;
(3) Any available drug counseling, rehabilitation, and employee assistance programs; and
(4) The penalties that may be imposed upon employees for drug abuse violations occurring in the workplace;

(c) Making it a requirement that each employee to be engaged in the performance of the grant be given a copy of the statement required by paragraph (a);

(d) Notifying the employee in the statement required by paragraph (a) that, as a condition of employment under the grant, the employee will:

(1) Abide by the terms of the statement; and
(2) Notify the employer in writing of his or her conviction for a violation of a criminal drug statute occurring in the workplace not later than five calendar days after such conviction;

(e) Notifying the agency, in writing, within ten calendar days after receiving notice under subparagraph (d)(2) from an employee or otherwise receiving actual notice of such conviction. Employers of convicted employees must provide notice, including position title, to every grant officer or other designee on whose grant activity the convicted employee was working, unless the Federal agency has designated a central point for the receipt of such notices. Notice shall include the identification number(s) of each affected grant;

(f) Taking one of the following actions, within 30 calendar days of receiving notice under subparagraph (d)(2), with respect to any employee who is so convicted:

(1) Taking appropriate personnel action against such an employee, up to and including termination, consistent with the requirements of the Rehabilitation Act of 1973, as amended; or
(2) Requiring such employee to participate satisfactorily in a drug abuse assistance or rehabilitation program approved for such purposes by a Federal, State or local health, law enforcement, or other appropriate agency;

OMB Number: 4040-0010
Expiration Date: 08/31/2011

Project/Performance Site Location(s)

Project/Performance Site Primary Location ☐ I am submitting an application as an individual, and not on behalf of a company, state, local or tribal government, academia, or other type of organization.

Organization Name: Duke Energy Business Services, LLC

DUNS Number: 8307602160000

* Street1: 526 S. Church St.

Street2: EC-03T

* City: Charlotte County:

* State: NC: North Carolina

Province:

* Country: USA: UNITED STATES

* ZIP / Postal Code: 28202-1802 * Project/ Performance Site Congressional District: NC-012

Project/Performance Site Location 1 ☐ I am submitting an application as an individual, and not on behalf of a company, state, local or tribal government, academia, or other type of organization.

Organization Name:

DUNS Number:

* Street1:

Street2:

* City: County:

* State:

Province:

* Country: USA: UNITED STATES

* ZIP / Postal Code: * Project/ Performance Site Congressional District:

OMB Number: 4040-0010
Expiration Date: 08/31/2011

Project/Performance Site Location(s)

Indicate the primary site where the work will be performed. If a portion of the project will be performed at any other site(s), identify the site location(s) in the blocks provided. You can copy the informational table as many times as needed, or delete tables that are not needed.

Note that the Project/Performance Site Congressional District is entered in the format of the 2 digit state code followed by a dash and a 3 digit Congressional district code, for example VA-001.

Project/Performance Site Primary Location:
Organization Name: Duke Energy Business Services, LLC
DUNS Number: 83-076-0216
*Street1: 526 S. Church St.
Street2: EC-03T
*City: Charlotte
County:
*State: NC
Province:
*Country: USA
ZIP / Postal Code: 28202
Project / Performance Site Congressional District: NC-012

Project/Performance Site Location:
Organization Name: Duke Energy Business Services, LLC
DUNS Number: 83-076-0216
*Street1: 1000 E. Main St.
Street2:
*City: Plainfield
County:
*State: IN
Province:
*Country: USA
ZIP / Postal Code: 46168
Project / Performance Site Congressional District: IN-001

Project/Performance Site Location:
Organization Name: Duke Energy Business Services, LLC
DUNS Number: 83-076-0216
*Street1: 1000 E. Main St.
Street2:
*City: Plainfield
County:
*State: IN
Province:
*Country: USA
ZIP / Postal Code: 46168
Project / Performance Site Congressional District: IN-002

OMB Number: 4040-0010
Expiration Date: 08/31/2011

Project/Performance Site Location:
Organization Name: Duke Energy Business Services, LLC
DUNS Number: 83-076-0216
*Street1: 1000 E. Main St.
Street2:
*City: Plainfield
County:
*State: IN
Province:
*Country: USA
ZIP / Postal Code: 46168
Project / Performance Site Congressional District: IN-003

Project/Performance Site Location:
Organization Name: Duke Energy Business Services, LLC
DUNS Number: 83-076-0216
*Street1: 1000 E. Main St.
Street2:
*City: Plainfield
County:
*State: IN
Province:
*Country: USA
ZIP / Postal Code: 46168
Project / Performance Site Congressional District: IN-004

Project/Performance Site Location:
Organization Name: Duke Energy Business Services, LLC
DUNS Number: 83-076-0216
*Street1: 1000 E. Main St.
Street2:
*City: Plainfield
County:
*State: IN
Province:
*Country: USA
ZIP / Postal Code: 46168
Project / Performance Site Congressional District: IN-005

OMB Number: 4040-0010
Expiration Date: 08/31/2011

Project/Performance Site Location:
Organization Name: Duke Energy Business Services, LLC
DUNS Number: 83-076-0216
*Street1: 1000 E. Main St.
Street2:
*City: Plainfield
County:
*State: IN
Province:
*Country: USA
ZIP / Postal Code: 46168
Project / Performance Site Congressional District: IN-006

Project/Performance Site Location:
Organization Name: Duke Energy Business Services, LLC
DUNS Number: 83-076-0216
*Street1: 1000 E. Main St.
Street2:
*City: Plainfield
County:
*State: IN
Province:
*Country: USA
ZIP / Postal Code: 46168
Project / Performance Site Congressional District: IN-007

Project/Performance Site Location:
Organization Name: Duke Energy Business Services, LLC
DUNS Number: 83-076-0216
*Street1: 1000 E. Main St.
Street2:
*City: Plainfield
County:
*State: IN
Province:
*Country: USA
ZIP / Postal Code: 46168
Project / Performance Site Congressional District: IN-008

OMB Number: 4040-0010
Expiration Date: 08/31/2011

Project/Performance Site Location:
Organization Name: Duke Energy Business Services, LLC
DUNS Number: 83-076-0216
*Street1: 1000 E. Main St.
Street2:
*City: Plainfield
County:
*State: IN
Province:
*Country: USA
ZIP / Postal Code: 46168
Project / Performance Site Congressional District: IN-009

Project/Performance Site Location:
Organization Name: Duke Energy Business Services, LLC
DUNS Number: 83-076-0216
*Street1: 139 E. 4TH St.
Street2:
*City: CINCINNATI
County:
*State: OH
Province:
*Country: USA
ZIP / Postal Code: 45202
Project / Performance Site Congressional District: OH-001

Project/Performance Site Location:
Organization Name: Duke Energy Business Services, LLC
DUNS Number: 83-076-0216
*Street1: 139 E. 4TH St.
Street2:
*City: CINCINNATI
County:
*State: OH
Province:
*Country: USA
ZIP / Postal Code: 45202
Project / Performance Site Congressional District: OH-002

OMB Number: 4040-0010
Expiration Date: 08/31/2011

Project/Performance Site Location:
Organization Name: Duke Energy Business Services, LLC
DUNS Number: 83-076-0216
*Street1: 139 E. 4TH St.
Street2:
*City: CINCINNATI
County:
*State: OH
Province:
*Country: USA
ZIP / Postal Code: 45202
Project / Performance Site Congressional District: OH-003

Project/Performance Site Location:
Organization Name: Duke Energy Business Services, LLC
DUNS Number: 83-076-0216
*Street1: 139 E. 4TH St.
Street2:
*City: CINCINNATI
County:
*State: OH
Province:
*Country: USA
ZIP / Postal Code: 45202
Project / Performance Site Congressional District: OH-008

Project/Performance Site Location:
Organization Name: Duke Energy Business Services, LLC
DUNS Number: 83-076-0216
*Street1: 1697-A Monmouth St.
Street2:
*City: Newport
County:
*State: KY
Province:
*Country: USA
ZIP / Postal Code: 41071
Project / Performance Site Congressional District: KY-004

OMB Number: 4040-0010
Expiration Date: 08/31/2011

Please note:

Here is our full response to Question 14 on SF-424.

14. Areas affected by project (Cities, Counties, States, etc.):

Various locations (in the cities and townships that make up Duke Energy's service territory) in the following counties...

In Indiana:

Bartholomew, Benton, Boone, Brown, Carroll, Cass, Clark, Clay, Clinton, Crawford, Daviess, Dearborn, Decatur, Delaware, Dubois, Fayette, Floyd, Fountain, Franklin, Fulton, Gibson, Grant, Greene, Hamilton, Hancock, Harrison, Hendricks, Henry, Howard, Hunington, Jackson, Jefferson, Jennings, Johnson, Knox, Kosciusko, Lawrence, Madison, Marion, Martin, Miami, Monroe, Montgomery, Morgan, Orange, Owen, Parke, Pike, Posey, Putnam, Randolph, Ripley, Rush, Scott, Shelby, Sullivan, Switzerland, Tippecanoe, Tipton, Union, Vermillion, Vigo, Wabash, Warren, Washington, Wayne, Wells, Whitley

In Ohio:

Adams, Brown, Butler, Clermont, Clinton, Hamilton, Highland, Montgomery, Preble, Warren

In Kentucky:

Boone, Campbell, Gallatin, Grant, Kenton, Pendleton

1. Project Abstract

Project Title: Duke Energy Smart Grid Deployment

Topic Area: Integrated and/or Cross-cutting systems

Duke Energy's Smart Grid Deployment Project (the "Project"),is a comprehensive grid modernization undertaking that will transform its Midwest electric system, and lead to "beyond the meter" products and services which will increase the consumer's role in managing energy use and reducing carbon emissions. This Project is truly "shovel-ready," having achieved a state regulatory order to proceed in Ohio, while awaiting a similar order in Indiana.

Duke Energy requests $200 million in funding from DOE on a total initial investment of over $800 million. Such federal cost sharing will significantly accelerate deployment, front-loading a five year project such that approximately 80 percent of the deployment will be completed in the first three years and will support more rapid investments in automated metering, distribution automation technology and the interfacing communications network.

The Project will create more than 1,900 new jobs, while also yielding expected economic benefits of nearly $1.8 billion over its 20-year expected asset life.

The Project's key design features and activities include, but are not limited to:

- Installing open, interoperable two-way communications networks
- Installing automated metering infrastructure for 1.4 million premises
- Installing advanced distribution automation applications
- Developing dynamic pricing programs (e.g., time-of-use, critical peak pricing)
- Introducing home area networking and plug-in electric vehicle support

Cisco Systems, Inc., Verizon Communications, Inc., and GridPoint, Inc. will participate as key equipment and software suppliers, working with Duke Energy to deploy a robust smart grid solution. Participation of industry-leading technology vendors, who share a commitment to open architecture communication solutions, and deployment on a wide scale regional basis, make this project unique. Successful execution will have a major impact on driving the market forward, setting future smart grid industry standards for years to come.

2. Project Foundation, Scope, Schedule and Tasks

Duke Energy has a wealth of experience managing multimillion-dollar projects. Many of these necessitate the participation of multiple vendors, which should give the DOE confidence in our ability to deliver the Project in a schedule efficient, cost effective manner. The Project is well defined and has a clear and logical breakdown of project tasks and activities. The plan includes identification of inter-dependencies, tasks, milestones, deliverables and critical path tasks.

2.1 Project Foundation and Smart Grid Experience

Duke Energy's Smart Grid Approach

Duke Energy believes that the smart grid will provide the foundation for the future of electricity delivery, revolutionizing the way the utility interacts with its customers. Thus we have been developing our approach to the smart grid since 2006, developing a solid foundation that includes:

- A strategic smart grid vision focusing on the communications network
- Smart grid solution deployment experience
- Well defined smart grid architecture

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- A highly qualified management team, experienced in project management, and with a well defined management structure
- Intellectual capital including smart grid models
- Significant vendor selection experience over a period of many years

Duke Energy's Smart Grid Planning & Preparation

Duke Energy is prepared to deploy cutting-edge smart grid solutions with the ability to update the tools, technologies, and techniques as they continue to evolve. Duke Energy's smart grid vision is much more than simply the functions it is capable of performing. Our smart grid solution is an integration of many nodes on the electric distribution system, which will deliver efficient power delivery and advanced communications capabilities, and provide the platform for emerging technologies, many of which will be beyond the meter.

Duke Energy's Smart Grid Vision

Duke Energy's smart grid vision starts with a secure, interoperable network instead of a smart meter based solution with proprietary communications. Since 2006, Duke Energy has led the industry in moving towards a smart grid strategy where the network is the foundation. Through Duke Energy's extensive initial and field deployment experience, the utility has learned how to overcome obstacles associated with nascent technology and integrate the multiple technologies that must interact seamlessly to achieve the full potential of the smart grid. For example, we have:

- Deployed advanced pilot smart grid solutions in Ohio, North Carolina, South Carolina, and Kentucky
- Deployed 87,000 AMI Endpoints in Ohio
- Deployed 15,000 Integrated communication boxes that lays the initial foundation for Duke Energy's communications network
- Developed Automated Meter Infrastructure solutions in Kentucky, utilizing new communications media
- Completed Distribution Automation (DA) pilots for substation communication, breaker automation and self-healing, sectionalizing, and other distribution line enhancements with full automation as a vehicle to prepare for full deployment
- Significant knowledge in assessing and selecting strategic vendors as referenced in Section 3.5.
- An experienced Program Management Office (PMO), fully capable of delivering the Duke Energy Smart Grid Deployment

Our architecture and experience will allow us to apply open and flexible products to allow for future expansion of potential smart grid capabilities

Project Scope

The primary scope of the Duke Energy Smart Grid Deployment Project is to implement smart grid technologies that will improve operational efficiencies, empower customer options, and lower carbon emissions through energy efficiency. The project will create a network that will provide two-way communications, linking Duke Energy's electric distribution power lines/grid to intelligent devices such as meters, data aggregators, transformers and devices in substations and customer's homes.

This functionality includes implementation of the smart grid communications network, deployment of automated metering infrastructure (AMI), distribution automation (DA) technologies, dynamic pricing programs including residential and large commercial pricing options, IT systems implementation and enhancements and customer pilot programs that include home area network capabilities and support for integration with plug-in electric vehicle (PEV) charging stations. Cisco Systems, Verizon Communications, and GridPoint will participate as key equipment suppliers, working with Duke Energy to deploy a robust smart grid solution. Participation of industry leading technology vendors, who share a commitment to open

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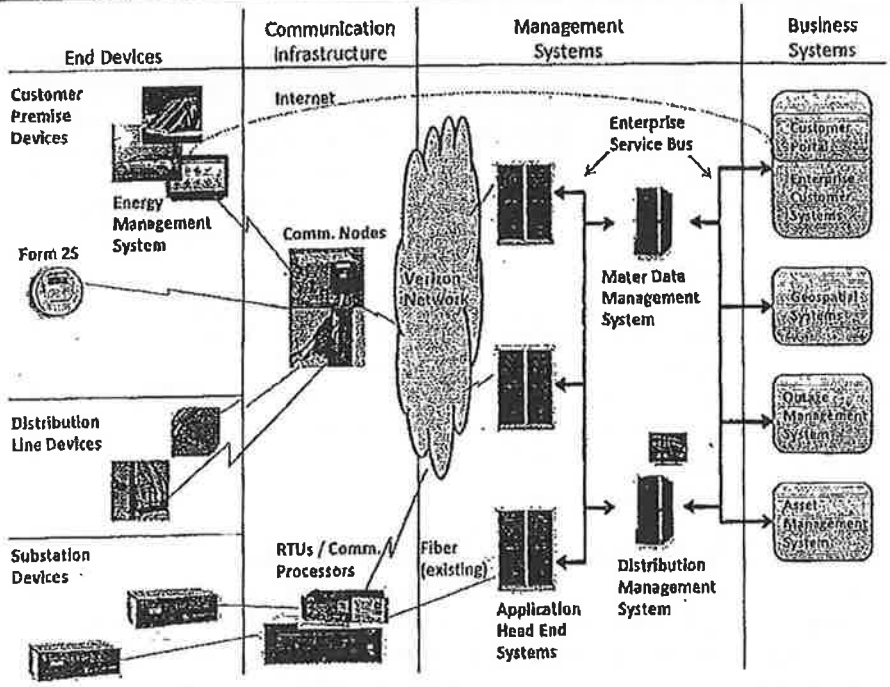
architecture communication solutions, and deployment on such a wide scale regional basis, make this project unique. Exhibit 2-1 depicts the Project architecture.

Exhibit 2-1: Duke Energy Smart Grid Architecture



2.2 Project Impact

Duke Energy proposes to implement this Project over a wide geographic region in the heart of the Midwest, which encompasses three states, namely Ohio, Indiana and Kentucky. The region, as depicted in Exhibit 2-2, has a total effected population of almost five million people. Duke Energy estimates that the Project will create approximately 1900 jobs (500 direct and 1400 indirect).

Exhibit 2-2: Smart Grid Deployment Project Service Territory

System modeling for a 20-year lifecycle demonstrated the following estimated annual results, due to distribution system improvements, for the Duke Energy Smart Grid Deployment Project:

- Annual average demand reduction – 84,000 kW
- Annual average energy savings – 323,000,000 kWh
- Annual average CO_2 reduction – 262,000 tons

The enhanced functionality created by this Project will also enable Duke Energy's industry-leading energy efficiency programs. Conservatively assuming that 30% of the 1.4 million customers adopt these programs, we estimate the following additional beneficial impacts on energy and carbon emissions:

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- Average demand reduction–1.3 kW per customer
- Annual average energy savings–1,400 kWh per customer
- Annual average CO_2 reduction–1.6 tons per customer

The Duke Energy Smart Grid Deployment uses a holistic approach to deploy appropriate technology that meets the primary purposes and goals of the DOE Smart Grid Investment Grant. Table 1 summarizes the project benefits, goals, and objectives.

Table 1: Project Benefits Relative to Goals and Objectives

SGIG Purpose and Goals	Project Objectives	Project Goals	Benefits
Improve electric power system reliability	Improve reliability of Midwest service territory distribution power system	Reduce Customer Downtime Improve SAIDI	☒Lower O&M Costs ☒Reduce Costs of Power Interruptions ☒Improve Customer Satisfaction ☒Fewer Outages ☒Improve Power Quality
Optimize asset utilization	Extend the life of current transmission, distribution, and generation assets and limit new generation	Enhance distribution equipment performance Improve power quality Reduce number of equipment inspections	☒Lower Electricity Costs ☒Lower O&M Costs ☒Reduce damages by lowering GHG/Carbon
Anticipate and respond to system disturbances	Implement the capability to understand system reactions and interactions	Reduce Customer Downtime Improve system diagnostic capabilities	☒Lower T&D Losses ☒Fewer Outages ☒Reduce Costs of Power Interruptions ☒Improve Power Quality ☒Enhance security
Accommodate all types of distributed generation, clean power, and storage options	Provide communication capabilities to support distributed resources	Connect to and monitor distributed resources including PEV and distributed generation assets	☒Lower Electricity Costs ☒Lower Peak Demand ☒Enhance Customer Flexibility ☒Enable New Technologies ☒Reduce Transmission Congestion Costs ☒Reduce Costs of Power Interruptions ☒Increases Energy Independence ☒Reduce damages by lowering GHG/Carbon
Reduce electric power system costs and peak demand	Delay the construction of generation facilities	Realize lowered consumption & peak demand fluctuations Reduce system losses	☒Lower Electricity Costs ☒Lower T&D Losses ☒Reduce Transmission Congestion Costs ☒Reduce damages by lowering GHG/Carbon ☒Avoids new plant construction

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Table 1: Project Benefits Relative to Goals and Objectives			
SGIG Purpose and Goals	Project Objectives	Project Goals	Benefits
Enable informed participation by consumers	Engage customers consumption and demand	Grow customer interaction base with AMI Identify, test, expand dynamic pricing	☒Lower customer aggregate costs ☒Lower Peak Demand ☒Lower O&M Costs ☒Reduce damages by lowering GHG/Carbon
Enable clean technology development and reduce greenhouse gas emissions	Meet demand and operate electricity system without new fossil fuel generation	Increase efficiency across the entire system	☒Lower Peak Demand ☒Lower O&M Costs ☒Reduce Costs from Better Power Quality ☒Reduce damages by lowering GHG/Carbon ☒Greater security from reduced oil consumption
Operating resiliently to attacks and natural disasters	Provide secure communications from Duke Energy to the customer	Enable secure and distributed generation and storage	☒Enhance cyber security ☒Increases Energy Independence ☒Risk mitigation

2.3 Summary Explanation of Major Project Tasks, Activities and Deliverables

The project has several major tasks and activities as depicted in Table 2. A summary schedule highlighting the milestones and interdependencies is included in Exhibit 2-3.

Table 2: Major Project Activities and Tasks	
Major Project Activities and Tasks	Activity and Deliverables
Customer Offerings and Enterprise Customer Systems	• Several programs for various customer levels and locations • Enable customers to interact with and control their energy environment • Dynamic pricing and enterprise customer system daily usage information • Will occur during 2010 through 2012
Grid Support Systems	• Composed of distribution management systems, outage management systems, head-end application systems, and meter data management systems • Specification, vendor evaluation, selection, engineering and deployment of IT support that support smart grid is underway • Interdependent with customer offerings • Begins by early 2010
Distribution Automation Systems	• Field deployment of the smart grid devices will consist of distribution automation, automated metering infrastructure, and the interconnecting communication systems • Deployment will include installation of line sensors, capacitance control, sectionalizers, intelligent electronic devices and monitoring equipment on circuits and within substations • Planned deployment will be divided into three phases on select circuits in

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Table 2: Major Project Activities and Tasks	
Major Project Activities and Tasks	Activity and Deliverables
	Indiana and Ohio, beginning in early 2010 and completed in 2012
Automated Metering Infrastructure	• Install nearly 1.4 million advanced, two-way digital meters in Ohio and Indiana • Divided into three tranches • Select customer deployment will be completed by late 2012
Communications Network	• Engineered and deployed starting in early 2010 • Comprised of communication data collectors, wired and wireless modules for the meters, and distribution automation equipment • Deliver performance and control data to and from the devices through wide area network nodes • Engineering and deployment take place in advance of the distribution automation and automated metering infrastructure deployments • IT and field equipment dependent on communication network

Additional detail is provided in Table 3 on the numbers and types of equipment that will be installed.

Table 3: Smart Grid Deployment Project Field Devices	
Scope of Field Equipment Installation (2010-2012)	Quantity
Residential Electric Meters	1,270,000
Commercial Electric Meters	130,000
Integrated Communication Boxes	[redacted]
Line Sensors	[redacted]
Line Sensor Aggregators	709
Modems on Distribution Equipment	[redacted]
Capacitor Controls Upgraded	3,698
Reclosers Upgraded	101
Substation Data Lines Upgraded	158
New Circuit Breakers (Combination of Outdoor Oil CBs and 12-kV Reclosers)	338
Circuit Breaker Relays Replaced / Upgraded (Multiple types of CB)	730
Regulator Controls Upgraded (Multiple types of Regulators)	722
Sectionalizers	360
Self-Healing Technology / Switches	30

2.4 Project Schedule with Key Milestones

The Project is scheduled and implemented by the Duke Energy Program Management Office (PMO). This PMO has structured its project management plan such that it is in a position to continuously adjust the engineering and installation of all systems including: automated metering infrastructure, distribution automation, dynamic pricing programs, the communications network, IT systems and customer systems.

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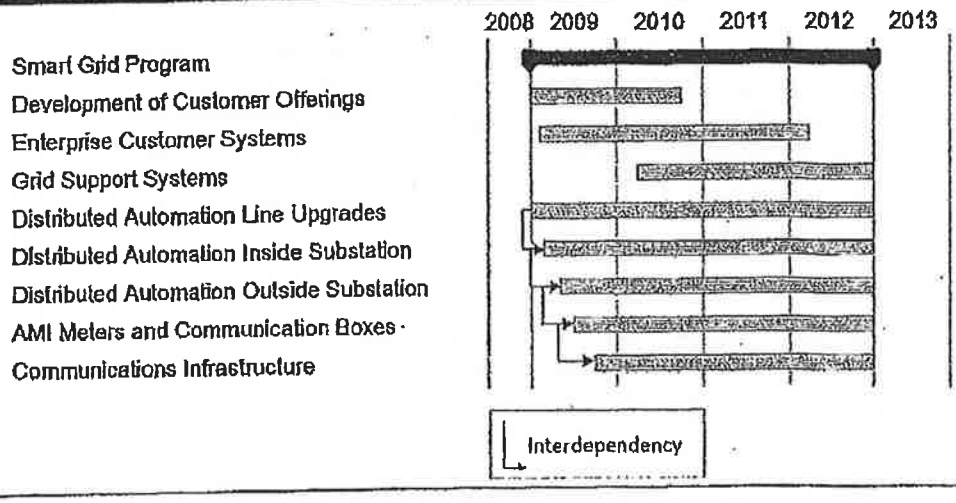
A detailed integrated project schedule is in place with specific tasks and detailed critical path analyses. This detailed project schedule is in Attachment B. Below is an extract of the key milestones for this project:

- Complete the development of new customer offerings: 2010
- Complete phase A distribution automation in specific Ohio/Indiana substations: 2010
- Complete phase B distribution automation in specific Ohio /Indiana substations: 2011
- Complete phase C distribution automation in specific Ohio /Indiana substations: 2012
- Automated metering infrastructure tranche 1 implementation: 2010
- Automated metering infrastructure tranche 2 implementation: 2011
- Automated metering infrastructure tranche 3 implementation: 2012
- Completion of communications network: 2012
- Launch of service offerings within the smart grid project to phase 1 customers: mid-2010
- Launch of service offerings with the smart grid project to phase 2 customers: mid-2011
- Realization of smart grid benefits by customers: 2011-12

Exhibit 2-3 depicts the major tasks and their interdependencies, the latter of which are shown with arrows preceding the tasks that would be required to be completed first.

Exhibit 2-3: Duke Energy Smart Grid Deployment Project Summary Schedule



2.5 Approval Process for Local, State, Regional and/or Federal Agencies

Ohio

A regulatory mechanism for cost recovery of smart grid systems and equipment for the electric service territory of Duke Energy Ohio was approved by The Public Utilities Commission of Ohio ("PUCO") in an order issued on December 17, 2008 in PUCO Case No. 08-920-EL-SSO[1], wherein the PUCO approved a Stipulation which was filed on October 27, 2008. Additionally, the PUCO approved a process for working groups, or a collaborative process, designed to maximize the benefits of the smart grid investment by

[1] The PUCO Order has been appealed by the Office of the Ohio Consumers' Counselor, but the issues under appeal are not related to the Smart Grid portion of the PUCO Order.

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designing and implementing tariffs such as dynamic pricing programs (e.g. critical peak pricing and residential time of use), load control and providing access to meter information. Duke Energy Ohio has plans to convene such a working group shortly and their results will be used to develop the specific pilots proposed as part of Duke Energy's Smart Grid Deployment Project in this application. Any such tariff offerings will require the approval of the PUCO, with such approval process anticipated to take four to six months.

Indiana

A smart grid proposal, including cost recovery, for the electric service territory of Duke Energy Indiana was filed with the Indiana Utility Regulatory Commission (IURC) on May 23, 2008 in IURC Cause No. 43501. ***A Settlement Agreement with the Indiana Office of Utility Consumer Counselor and other customer groups was filed with the IURC on June 4, 2009. The Settlement Agreement provides for timely cost recovery of Duke Energy Indiana's smart grid deployment*** in addition to the creation of a collaborative process for developing time differentiated Dynamic Pricing program pilots, including real time pricing, time of use and critical peak pricing. The IURC proceeding will be fully briefed by August 5, 2009 and an IURC Order is expected in the 3rd or 4th quarter 2009. Subject to approval by the IURC, Duke Energy Indiana has plans to convene the pricing collaborative process 30 days after the IURC Order and the results of such collaborative will be used to develop the specific pilots proposed as part of Duke Energy's Smart Grid Deployment Project in this application. Any such tariff offerings will require the approval of the IURC, with such approval process anticipated to take four to six months.

Kentucky

Portions of the Project that impact Duke Energy Kentucky customers include the addition of distribution automation equipment, communications infrastructure and IT systems. ***Duke Energy Kentucky is not required to obtain a Certificate of Public Convenience and Necessity from the Kentucky Public Service Commission (KyPSC)*** for this type of investment if it qualifies as an ordinary extension of an existing system in the usual course of business, or unless special cost recovery is requested by the utility. Duke Energy Kentucky has no current plans to request KyPSC approval or special cost recovery associated with the proposed Project in this application.

3. Project Management Plan

Duke Energy's executive management recognizes that a transformational deployment of this scale will also require organizational redevelopment. The Duke Energy Smart Grid Deployment Project Management Plan is mature and built upon the overall project objectives; which are aligned with the SGIG goals. The plan is fully supported by executive management and key personnel are already assigned. Having a detailed project schedule and organizational commitment will ensure an effective deployment of this accelerated project strategy. A complete Program Management Office playbook was developed which includes financial, technical, and regulatory risks and mitigation actions.

3.1 Relevance of the Project to the Purpose and Goals of the SGIG

Table 1 in Section 2 demonstrates how the Duke Energy Smart Grid Deployment Project's goals, objectives, and expected benefits are relevant to the SGIG purpose and goals.

3.2 Project Team with Project Organization Chart, Respective Roles and Responsibilities

Based on current regulatory proceedings and orders, Duke Energy has expanded its smart grid workforce to include more than 100 staff led by the PMO.

Smart Grid Program Management Organization

The Smart Grid Program Management Office (PMO) is responsible for the day-to-day management of the Duke Energy Smart Grid program working in close cooperation with the Duke Energy Senior Management,

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Summary: Exhibit Exhibit 14, Part 1 of 3, for the Deposition Transcript of Donald Schneider, filed on Behalf of the Office of the Ohio Consumers' Counsel electronically filed by Ms. Deb J. Bingham on behalf of Healey, Christopher Mr.