

VERIFIED DIRECT TESTIMONY OF RYAN J. BROWN

INTRODUCTION

IURC
PETITIONER'S
EXHIBIT NO. 9-11-19
DATE _____ REPORTER JE

1 **Q1. Please state your name and business address.**

2 A. My name is Ryan J. Brown, and my business address is 129 E. Market Street,
3 Suite 600, Indianapolis, Indiana 46204.

4 **Q2. By whom are you employed and in what capacity?**

5 A. I am employed by EDP Renewables North America LLC ("EDPR") as Executive
6 Vice President, Eastern Region and Canada. I have been delegated responsibility
7 for the development of the Rosewater Wind Farm (the "Project") by Rosewater
8 Wind Farm LLC ("Petitioner"). I am responsible for EDPR's business in the
9 eastern U.S., including the State of Indiana, and Canada. EDPR is a global leader
10 in the renewable energy sector and the world's fourth-largest wind energy
11 producer, with a presence in 12 countries. EDPR's business comprises the
12 development, construction and operation of wind farms and solar plants to
13 generate and deliver clean electricity.

14 **Q3. Please summarize your educational and professional background.**

15 A. I received my Bachelor's Degree in Economics from the University of Chicago in
16 2001. I have 15 years of experience in the energy sector, including work at the
17 Indiana Office of Energy Development from 2004-2008 and at EDPR since 2008
18 in several roles, including Development Project Manager, Senior Development
19 Project Manager, Director of Development-Canada, and my current position as
20 Executive Vice-President since January 2015. I also have previous work

1 experience in corporate finance and education and volunteer work in Mexico and
2 Ecuador.

3 **Q4. Have you previously testified before government bodies or agencies?**

4 A. Yes. I have recently provided testimony before the Indiana Utility Regulatory
5 Commission in Cause No. 44998 and Cause No. 45010. I have also previously
6 testified before the Maine Public Utility Commission in a 2015 docket pertaining
7 to our wind and transmission developments in that state.

8 **Q5. What is the purpose of your direct testimony in this proceeding?**

9 A. The purpose of my direct testimony is to discuss the relief sought by Petitioner in
10 this proceeding and to provide the Commission with information regarding the
11 Petitioner and the Project.

12 **Q6. Please describe EDPR.**

13 A. EDPR is a Delaware limited liability company, and its ultimate parent company is
14 Energias de Portugal, S.A. ("EDP"), a major Portuguese utility headquartered in
15 Lisbon, Portugal. EDPR is a wholly-owned subsidiary of EDP Renováveis, S.A.
16 ("EDP Renováveis"), a Spanish company and subsidiary of EDP. EDPR has over
17 600 employees and is headquartered in Houston, Texas, with regional offices
18 throughout the United States.

19 **Q7. What relief does Petitioner request of the Commission in this Cause?**

20 A. Petitioner is requesting that the Commission decline to exercise jurisdiction
21 pursuant to Ind. Code § 8-1-2.5-5 over Petitioner's construction, ownership and
22 operation of, and any other activity in connection with the Project, and determine

1 that the public interest will be served by the Commission's declining to exercise
2 jurisdiction over Petitioner.

3

4

PROJECT BACKGROUND

5 **Q8. Please describe the Rosewater Wind Farm.**

6 A. The Rosewater Wind Farm is situated in White County, Indiana, and will have a
7 total nameplate capacity of approximately 102 megawatts ("MW") of electricity.
8 Electricity generated by the Project will be transmitted to the project substation in
9 White County, which is adjacent to the point of interconnection in Northern
10 Indiana Public Service Company's ("NIPSCO") Reynolds Substation in White
11 County, Indiana. Major construction is set to commence by October 1, 2019.

12 **Q9. Is the Project similar to other electric generating plants for which the
13 Commission has previously declined to exercise jurisdiction?**

14 A. Yes. The Commission has already declined to exercise jurisdiction over the
15 construction, ownership and operation of the 6 phases of Meadow Lake Wind
16 Farm also constructed by EDPR in White County, with the exception of
17 specifically stated conditions set out in the Commission's declination of
18 jurisdiction orders. *See In the Matter of the Petition by Meadow Lake Wind Farm,*
19 *LLC, Cause No. 43602 (Feb. 18, 2009); In the Matter of the Petition by Meadow*
20 *Lake Wind Farm II, LLC, Cause No. 43678 (Aug. 19, 2009); In the Matter of the*
21 *Petition of Meadow Lake Wind Farm III, LLC, Cause No. 43759 (Nov. 24, 2009);*
22 *In the Matter of the Petition of Meadow Lake Wind Farm IV, LLC, Cause No.*
23 *43758 (Nov. 24, 2009); Joint Petition of Meadow Lake Wind Farm IV, LLC,*

1 *Meadow Lake Wind Farm V, LLC*, Cause No. 43876 (Sept. 15, 2010) and
2 *Meadow Lake Wind Farm VI, LLC*, Cause No. 45010 (February 28, 2018) . The
3 Commission further declined to exercise much of its jurisdiction over the project
4 entity for another one of EDPR's Indiana wind farms, the Headwaters Wind
5 Farm. *In the Matter of the Petition of Headwaters Wind Farm LLC*, Cause No.
6 44358 (Sept. 19, 2013)

7 The Commission also issued orders declining much of its jurisdiction over electric
8 generating facilities proposed by other wind farms. *See In the Matter of the*
9 *Petition by Benton County Wind Farm, LLC*, Cause No. 43068 (Dec. 6, 2006); *In*
10 *the Matter of the Petition by Fowler Ridge Wind Farm, LLC*, Cause No. 43338
11 (Nov. 20, 2007) (and subsequent related Cause Nos. 43443 and 43444); *In the*
12 *Matter of the Petition by Hoosier Wind Project, LLC*, Cause No. 43484 (Oct. 1,
13 2008); *NextEra Energy Bluff Point, LLC*, Cause No. 44299 (April 3, 2013). This
14 Commission has also in recent years issued several other orders declining much of
15 its jurisdiction over electric generating facilities proposed by independent power
16 producers. Typical of these other orders are those issued to *Tenaska Indiana*
17 *Partners, L.P.* (IURC Cause No. 41823) and *Duke Energy Vermillion, LLC*
18 (IURC Cause No. 41388). The proposed Project is similar to these electric
19 generating facilities in the sense that it will be a generator of electricity for sale in
20 the wholesale power market, and represents an increase in the amount of
21 electricity generated in Indiana.

22 **Q10. Where will the Project be located?**

1 A. The Rosewater Wind Farm is located approximately 25 miles northwest of
2 Reynolds, Indiana, and is spread out over approximately 12,000 acres in White
3 County. A preliminary site map depicting the approximate turbine and facility
4 locations for the Project is attached as Petitioner's Attachment RJB-1.

5 **Q11. How will the Project generate electricity?**

6 A. The Project will generate electricity using wind turbines mounted on steel towers.
7 The wind turbine generator voltage of approximately 650V will be stepped up to
8 34.5 kV by transformers located in the turbine nacelle or near each wind turbine.
9 Electricity produced by the turbines will then be delivered to an electric substation
10 via 34.5 kV power collection lines, which will be located substantially
11 underground. The collection lines will feed into the Project substation. From the
12 Project substation, the Project will be interconnected to the NIPSCO's Reynolds
13 Substation through an approximately 1,000 foot long, 138 kV overhead
14 transmission line owned by Petitioner. The proposed Project substation, the 138
15 kV transmission line, the point of interconnection, and NIPSCO's Reynolds
16 Substation are depicted on Attachment RJB-1.

17 **Q12. Have the component pieces to construct the Project been secured?**

18 A. Petitioner has secured some of the components, including all of the "safe harbor"
19 components needed to qualify for the production tax credit. Orders for all
20 component pieces will be made to facilitate completion of construction in late
21 2020.

PROJECT SITE

Q13. What information or exhibits have been collected to demonstrate the appropriateness of the site?

A. Based upon our due diligence and permitting work to date, no environmental issues are foreseen that would delay or prevent the permitting and construction of the Project within the timeline listed herein. Also, EDPR's more than 10 years of experience successfully developing wind projects in the area as part of the Meadow Lake Wind Farm informs Petitioner's analysis.

Petitioner retained KTA Associates, Inc. ("KTA") to complete a Phase I Environmental Site Assessment in accordance with ASTM Standard E-1527-13. Petitioner anticipates that KTA will complete its work on or about February 4, 2019, and Petitioner will late-file the executive summary of KTA's report as Petitioner's Attachment RJB-2. Petitioner does not believe KTA's report will identify any known, existing on-site recognized environmental conditions that would require a formal cleanup under Federal or State regulatory programs or that would potentially have a negative impact on the feasibility of the development of the Project.

Petitioner also contracted with Ecology and Environment, Inc., to perform a Site Characterization Study. The Site Characterization Study reviewed land use and biological resources within the Project area and a 2-mile area immediately surrounding the Project. The executive summary of the Site Characterization Study is attached as Petitioner's Attachment RJB-3 (The study identifies the

1 Project as Meadow Lake VII, which was the original name of the Project before
2 changing names to Rosewater Wind Farm to highlight changes such as a MISO
3 connection for the Project as contrasted with PJM interconnection for the
4 Meadow Lake Wind Farm). As noted in the Site Characterization Study, there are
5 federal and state protected species that have the potential to occur within the
6 Project area. In particular, the Indiana bat, the northern long-eared bat, and the
7 bald eagle have the potential to occur in the area.

8 EDPR introduced this Project to U.S. Fish and Wildlife Service (“USFWS”) and
9 Indiana Department of Natural Resources (“IDNR”) in 2017. Based on EDPR’s
10 experience in developing wind farms in Indiana and the wildlife studies required
11 by USFWS and IDNR, Petitioner contracted with Western EcoSystems
12 Technology, Inc. (“WEST”) to conduct wildlife surveys. Wildlife surveys began
13 in December 2016 with avian use surveys. The first year of avian use surveys was
14 completed in November 2017, and a second year of avian use surveys began in
15 March 2018. Bald eagles have been observed during surveys. Aerial-based raptor
16 nest surveys were conducted in March 2018. No eagle nests were observed during
17 surveys. Petitioner is currently evaluating the risk of impact to bald eagles and
18 will coordinate with USFWS regarding whether an Eagle Take Permit is
19 warranted.

20 WEST completed desktop risk assessments for three small mammal species:
21 Franklin’s ground squirrel (state endangered) and the plains pocket gopher and
22 badger (species of concern), as well as various mussel species. Results of the
23 assessments indicate low risk of impact to these species. Petitioner will discuss

1 the results with USFWS and IDNR to determine whether field studies are
2 warranted based on the design of the Project. Additionally, USFWS and IDNR
3 have expressed concern over the potential for wind energy projects in White
4 County to impact American golden plovers, and WEST completed a risk
5 assessment for that species as well. Results of the assessments indicate that risk of
6 impact to the American golden plover is low.

7 WEST will conduct a targeted bat mist-netting study during summer 2019 to
8 determine presence or probable absence of Indiana bats and northern long-eared
9 bats within the Project area, following a study plan approved by USFWS.
10 Petitioner will seek a Technical Assistance Letter from USFWS stating that the
11 standard of insignificant or discountable take of the Indiana bat and northern long-
12 eared bat will be met by the implementation of certain minimization measures and
13 monitoring efforts by Petitioner in the Project area. EDPR's more than 10-year
14 track record of wind development in the Project area without incident further
15 demonstrates that these minimization and monitoring efforts are successful and
16 effective. In addition, Petitioner will develop a Habitat Conservation Plan in order
17 to obtain an Incidental Take Permit from USFWS. This permit will govern
18 ongoing operation of the Project with respect to federally-listed bat species.

19 **Q14. Will the Project use water and will there be any impact on local water**
20 **supplies?**

21 A. The Project will not use water in any significant quantities, and it will have
22 negligible or no impact on local water supplies. Water will be used during
23 construction, reconstruction and removal of Project facilities, primarily for dust

1 control and concrete mixing. After construction is completed, small quantities of
2 water will also be used for the Project's operations and maintenance control
3 building, which will most likely be drawn from local wells. Petitioner will obtain
4 storm water permits as necessary.

5 **Q15. Will the Project have any substantial negative impact on any groundwater**
6 **rights and obligations, or any streams or wetlands?**

7 A. No, the Project will not have any substantial negative impact on any groundwater
8 rights, streams or wetlands.

9 **Q16. With regard to aesthetics and noise from the wind turbines in the Project,**
10 **what impact will they have on nearby citizens?**

11 A. Petitioner expects the sound and aesthetic impacts to be comparable to those of
12 other utility scale wind farms in the State of Indiana. However, wind turbine
13 technology is constantly improving, resulting in turbines that are both quieter and
14 more efficient than ever before, and the Project will utilize turbines from this
15 latest generation of wind turbines that have been designed with both sound and
16 aesthetic concerns in mind.

17

18 **PUBLIC UTILITY STATUS AND PERMITTING ISSUES**

19 **Q17. Will Petitioner qualify as a public utility under Indiana law?**

20 A. The Indiana legislature has defined "public utility" to include any entity that
21 owns, operates, manages or controls any plant or equipment within the state for
22 the production of electricity. As described above, Petitioner intends to develop,
23 own, and operate an electric generating facility, so even though it does not intend

1 to sell electricity directly to retail customers, it may fall within this very broad
2 definition of “public utility” under Indiana law. As a public utility, Petitioner
3 would then also meet the definition of an “energy utility” for purposes of Ind.
4 Code § 8-1-2.5-5. This Code section permits an energy utility electing to be
5 subject to this section to request the Commission to decline to exercise its
6 jurisdiction with respect to the energy utility, which prompted the Petition in this
7 case.

8 **Q18. Has Petitioner applied for and obtained, or will Petitioner apply for and**
9 **obtain, all necessary federal, state, and local permits needed for construction**
10 **and operation of the Project?**

11 A. Yes.

12 **Q19. What local permits are required for the Project?**

13 A. County and municipal building, construction, grading, and wastewater permits are
14 required, as they apply in White County.

15 **Q20. Please describe the requirements of the various zoning ordinances with**
16 **respect to the Project facilities to be installed in White County.**

17 A. White County has specific project design, setback, and noise standards with
18 which the Project will comply. Petitioner will execute a Road Use Agreement
19 with White County. Petitioner anticipates that under the Road Use Agreement,
20 White County will agree to a set of roads that will be utilized by the Petitioner,
21 and Petitioner will be responsible to fund any road upgrades required to deliver
22 the wind turbines and associated equipment. Petitioner also anticipates that under
23 the Road Use Agreement the Petitioner will be responsible to either repair or pay

1 for repairs necessary due to Petitioner's use of the roads. Petitioner will also enter
2 into an Economic Development Agreement with White County. Petitioner
3 anticipates this agreement will be similar to other economic development
4 agreements that EDPR project entities have entered into with White County for
5 the development of the 5 phases of the Meadow Lake Wind Farm located in
6 White County.

7 **Q21. Will the Project require an Improvement Location Permit?**

8 A. Yes, to be issued by White County prior to erection of each wind turbine and
9 construction of Project facilities.

10 **Q22. Will the Project have a decommissioning plan?**

11 A. Yes. Petitioner will have its decommissioning plan approved in accordance with
12 the White County zoning ordinance.

13 **Q23. What is the purpose of the decommissioning plan?**

14 A. The decommissioning plan provides assurance that the Project facilities are
15 properly decommissioned at the end of the Project's useful life or upon facility
16 abandonment. Each applicant must provide a cost estimate for demolition and
17 removal of the Project facilities. To guard against the worst-case possibility that
18 the Project will be unable to meet its obligation to dismantle the wind project, a
19 decommissioning security will be established. The decommissioning security is
20 intended primarily to cover the cost of removing project infrastructure, of
21 restoring the leased premises to their original condition, and of removing the
22 foundation pedestals to a depth of 48 inches. Detail regarding the type and amount

1 of the security and method of calculating it will be specified in the
2 decommissioning plan.

3 **Q24. What State permits are required for the Project?**

4 A. State requirements for this Project include the following:

- 5 • An NPDES general permit is required under Title 327 of the Indiana
6 Administrative Code for the discharge of construction-related storm water
7 (“Rule 5 permit”). Petitioner will submit a written construction plan to the
8 local county Soil and Water Conservation District office in White County.
9 Once the plan is approved, the review has been waived, or the 28-day review
10 period has passed, Petitioner will submit a Notice of Intent to the Indiana
11 Department of Environmental Management (“IDEM”) at least 48 hours prior
12 to starting land-disturbing activities. After IDEM determines that Petitioner's
13 activity is covered by Rule 5, it will issue a notice of sufficiency to Petitioner,
14 the Notice of Intent applicant.
- 15 • A determination by the Indiana Department of Transportation (“INDOT”) that
16 the Project and its location will not present any Indiana-specific air navigation
17 hazards. Under Indiana law, after INDOT makes or is deemed to have made a
18 no-hazards finding, the Federal Aviation Administration’s (“FAA”) permits
19 (as discussed later in my testimony) are deemed valid Indiana tall structure
20 permits and no additional permits are issued or required to be issued by
21 INDOT.

- 1 • Permits, as needed, from INDOT to allow Project electric lines and other
2 facilities to cross state highways and for driveways, road exits, etc. Petitioner
3 will apply for these permits as they become necessary.
- 4 • Isolated wetlands are regulated by the IDEM under the State Isolated
5 Wetlands Law and development activities conducted within the floodway of
6 any waterway of the State are regulated by the IDNR under the Flood Control
7 Act and the Floodplain Management Rule. Petitioner has conducted micro-
8 siting activities for turbines and associated access roads and infrastructure in
9 an effort to avoid and minimize impacts to wetlands and surface water
10 features with the Project area. The Project as designed does not require an
11 isolated wetland permit from IDEM. The Petitioner intends to avoid
12 construction activity within state regulated floodways. However, if
13 construction within floodways cannot be avoided, Petitioner will obtain
14 appropriate IDNR floodway permits, if necessary for the Project.

15 **Q25. What federal requirements apply to the Project?**

16 A. Several federal requirements apply to the Project, and Petitioner will comply with
17 all of them. The Project will comply with the following requirements:

- 18 • Petitioner will obtain Determinations of No Hazard to Air Navigation from
19 the FAA for structures that exceed 200 feet in height, including all turbines in
20 the Project site.
- 21 • Petitioner intends to self-certify as an exempt wholesale generator and apply
22 for market-based rate authority under Federal Energy Regulatory Commission
23 ("FERC") rules and regulations.

- 1 • Petitioner will prepare a federal spill prevention, control and countermeasure
2 ("SPCC") plan for oil spill contingencies.
- 3 • Development activities that affect wetlands and other waters of the U.S. in the
4 State of Indiana are regulated by the U.S. Army Corps of Engineers
5 ("USACE"). A Water Quality Certification from IDEM is also required when
6 applying for a federal permit. Petitioner has conducted micro-siting activities
7 for turbines and associated access roads and infrastructure, in an effort to
8 avoid and minimize impacts to wetlands and surface water features within the
9 Project area. Based on the nature and extent of the anticipated impacts to
10 wetlands or waters of the U.S., the Project is eligible for authorization under a
11 USACE Nationwide Permit ("NWP"). The Section 401 Water Quality
12 Certification from IDEM is pre-authorized under NWPs #12, 33 and 51.
- 13 • As described above, Project operations may impact two federally-listed
14 species, the Indiana bat and northern long-eared bat. Petitioner will seek to
15 secure a Technical Assistance Letter from the USFWS, and will develop a
16 Habitat Conservation Plan in order to obtain an Incidental Take Permit from
17 USFWS for the Project. Petitioner will also consult with USFWS or IDNR as
18 applicable concerning the necessity of an Eagle Take Permit and any
19 necessary or advisable permitting regarding the American golden plover,
20 Franklin's ground squirrel, the plains pocket gopher and badger, and various
21 mussel species.

INTERCONNECTION

1
2 **Q26. How will the Project interconnect with the wholesale electric transmission**
3 **grid?**

4 A. The Project is expected to interconnect with NIPSCO's 138 kV transmission
5 system at NIPSCO's Reynolds Substation in White County, Indiana. The
6 Project's electrical system will consist of: (i) a 34.5 kV collection system, which
7 will collect energy generated by each wind turbine at approximately 650 volts,
8 then will increase voltage to 34.5 kV through step-up transformers located in the
9 turbine nacelle or near each wind turbine, and deliver it via electric cables, which
10 will be entirely underground, to (ii) a new 138 kV Project substation, where the
11 collection system voltage of 34.5 kV will be increased to the transmission
12 voltage of 138 kV, for (iii) interconnection through the new, Petitioner-owned,
13 138 kV overhead transmission line with (iv) NIPSCO's Reynolds Substation and
14 138 kV transmission system.

15 **Q27. What studies have been done regarding the interconnection with NIPSCO?**

16 A. A feasibility study for the Project was completed on December 17, 2015, and is
17 attached as Petitioner's Attachment RJB-4. NIPSCO's transmission system is part
18 of the wholesale power grid controlled by Midcontinent Independent System
19 Operator, Inc. ("MISO"). Petitioner's queue position with MISO is J513. A
20 System Impact Study was completed by MISO for the Project in May 23, 2018. A
21 copy of MISO's System Impact Study is attached as Petitioner's Attachment RJB-
22 5. Finally, Petitioner, NIPSCO and MISO entered into a Large Generator

1 Interconnection Agreement (“LGIA”) dated August 15, 2018. A copy of the
2 LGIA is attached as Petitioner’s Attachment RJB-6.

3 **Q28. Can the Project be interconnected without negatively impacting system**
4 **performance?**

5 A. Yes. The Feasibility Study, the System Impact Study, and the LGIA indicate that
6 the Project’s interconnection with the NIPSCO transmission system will not
7 negatively impact system performance.

8

9 **THE PROJECT WILL SERVE THE PUBLIC INTEREST**

10 **Q29. Is there a need for electricity generated by the Project?**

11 A. Yes. According its most recent Integrated Resource Plan, NIPSCO has actively
12 engaged in the open source acquisition of renewable energy to add its generation
13 portfolio and chose to partner with EDPR. Accordingly, NIPSCO will take all the
14 electricity generated by the Project. The details of the structure under which
15 NIPSCO will offtake the electricity is discussed later in my testimony.

16 **Q30. Will the development of additional generating capacity serve the public**
17 **interest?**

18 A. Yes, the public interest will be served in a number of important respects by the
19 addition of the electric generating capacity represented by the Project. First, the
20 public needs electricity. Second, Petitioner’s proposed wind farm represents one
21 of the most environmentally friendly means of generating electricity. Wind
22 energy helps reduce the negative effects of electricity generation on the
23 environment by being a source of clean power. Wind farms do not release any

1 pollutants, such as SO₂ (which causes acid rain), NO_x (which causes smog),
2 mercury (which causes neurological damage in fetuses and children), or CO₂ (a
3 greenhouse gas that contributes to global climate change). Third, the public in
4 Indiana will benefit from the efficiencies which flow from proximity to the source
5 of generation; that is, because of the high cost of transmitting power over long
6 distances, it is generally advantageous for load not to be located too far from its
7 source. Fourth, landowners in White County will receive economic benefits from
8 the placement of wind farm facilities on their properties. Fifth, local taxing bodies
9 will receive new tax revenues. Sixth, up to 300 construction jobs and 4 to 6 full-
10 time operations and maintenance jobs will be created by the Project. Seventh,
11 wind energy provides greater energy security. It will diversify Indiana's
12 electricity generation portfolio, protecting against volatile price spikes and risks
13 from relying too heavily on just a few sources of generation. The wind itself is a
14 domestic source of fuel, harnessed in this case over Indiana lands, and not subject
15 to the geopolitical complexities of foreign energy sources. The wind's renewable
16 nature will help protect future generations from the risks of dwindling energy
17 supplies.

18 **Q31. In past Commission orders declining, in part, jurisdiction over wind farms,**
19 **petitioners have waived the right to use eminent domain and to be exempt from**
20 **local zoning, but retained the right to use the public right-of-way, correct?**

21 A. Yes.

22 **Q32. Does Petitioner seek or need the power of eminent domain?**

23 A. No.

1 **Q33. Does Petitioner seek or need the power to be exempt from local zoning?**

2 A. No.

3 **Q34. Does Petitioner seek to retain the right to use public rights-of-way?**

4 A. Yes, in a limited manner. Petitioner seeks to retain the right to use the public
5 right-of-way within the Project area. Retention of the use of the public right-of-
6 way will allow Petitioner to place collector lines in the public right-of-way.
7 Additionally, retention of this right will clarify issues surrounding use of the
8 public right-of-way for road crossings. This is similar to the treatment given to
9 other wind projects in Indiana.

10 **Q35. Is Petitioner asking this Commission to designate a service territory or**
11 **establish electric rates?**

12 A. No. By limiting its activities to the generation of electricity for sale in the
13 wholesale market, Petitioner will not have any retail customers, nor will its sales
14 be constrained by geography to the extent technology and the presence of
15 transmission capacity allow. To the extent wholesale rates are not determined by
16 the marketplace, they are regulated by FERC, which preempts the jurisdiction of
17 state regulatory bodies to regulate wholesale rates for electricity.

18 **Q36. To whom will Petitioner sell the electricity generated by the Project?**

19 A. As I noted above, NIPSCO will purchase all of the electrical output of the Project.
20

21 **PROJECT TIMELINE AND CONSTRUCTION**

22 **Q37. What is the Project's planning timeline (after receiving all required**
23 **regulatory approvals)?**

1 A. The Project is anticipated to achieve commercial operation by late 2020.

2 **Q38. Will Petitioner advise the Commission through notice of any change in the**
3 **in-service date, which the Commission may use to refine its integrated**
4 **resource planning for Indiana retail utilities?**

5 A. Yes.

6 **Q39. Does Petitioner have the ability to construct the Project?**

7 A. Yes.

8 **Q40. Who will have construction responsibility?**

9 A. Petitioner is responsible for the construction of the Project, and it will hire an
10 experienced contractor to perform engineering, procurement, and construction
11 activities.

12

13 **PROJECT OWNERSHIP AND OPERATION**

14 **Q41. Will Petitioner own the Project?**

15 A. Yes, Petitioner will own the Project. The proposed ownership structure for
16 Petitioner and the timeline for the ownership of Petitioner is different than the
17 typical wind project developed by EDPR, however. Initially, EDPR will own
18 100% of the membership interests in Petitioner. Upon achieving commercial
19 operation, again projected to be in late 2020, EDPR will transfer the membership
20 interests in Petitioner to a joint venture entity (the "JV") owned by NIPSCO,
21 EDPR and a tax equity partner. NIPSCO will be the managing member of the JV.
22 This transfer will be made pursuant to a Build-Transfer Agreement between JV
23 and EDPR (the "BTA"). Under the joint venture agreement, NIPSCO will buy out

1 EDPR's ownership interest in the JV in mid-2023. At that point, Petitioner will be
2 owned exclusively by NIPSCO and the tax equity partner through the JV entity
3 structure, and EDPR will no longer hold a director or indirect ownership interest
4 in Petitioner. Petitioner anticipates that the terms and conditions upon which
5 NIPSCO makes this investment and consummates the above-described transaction
6 will be approved in a concurrent proceeding initiated by NIPSCO, wherein
7 NIPSCO, among other things, explains the proposed transaction structure in
8 greater detail. A flow chart depicting the proposed transfer of Petitioner to an
9 affiliated interest of NIPSCO is attached as Petitioner's Attachment RJB-7.

10 Alternatively, if the Commission does not approve the BTA structure or if any
11 other conditions precedent are not met, EDPR and NIPSCO have a backstop
12 power purchase agreement ("PPA") wherein NIPSCO will purchase the entirety
13 of the electrical output from the Project. Accordingly, whether the JV entity
14 structure is approved or not, NIPSCO will offtake all of the electrical output from
15 the Project.

16 **Q42. Don't prior Commission declination orders involving wind projects require**
17 **notice to the Commission if a wind project becomes affiliated with an Indiana**
18 **retail electric utility?**

19 A. Yes. Petitioner proposes to file a notice in this Cause within one (1) business day
20 after the consummation of the transfer of Petitioner to the JV entity. Petitioner
21 also requests that the order in this proceeding approve the transfer of Petitioner to
22 an affiliated interest of NIPSCO to the extent deemed necessary. Petitioner
23 understands that NIPSCO has initiated a concurrent proceeding, wherein NIPSCO

1 is requesting, among other relief, that the Commission approve the transfer of
2 Petitioner to one of its affiliated interests. Petitioner requests that all conditions
3 placed upon the transfer will be finalized in that concurrent proceeding.

4 **Q43. Has Petitioner's owner, EDPR, or any of its other affiliates constructed or**
5 **operated other electric generating facilities?**

6 A. Yes. EDPR's experience includes developing, owning and operating 50 wind
7 farms and solar parks generating more than 6,000 MW in nameplate capacity.
8 These projects are spread across 14 states (including Meadow Lake Wind Farm
9 Phases I through VI and Headwaters Wind Farm in Indiana), Canada and Mexico.
10 EDPR is a global leader in the renewable energy sector and the world's fourth
11 largest wind energy producer with a presence in 12 countries.

12 **Q44. Will Petitioner operate the Project in a commercially reasonable manner in**
13 **accordance with good utility practice?**

14 A. Yes.

15 **Q45. Does Petitioner have the ability to finance the Project?**

16 A. Yes. Petitioner is a subsidiary of EDPR, which in turn is a wholly-owned
17 subsidiary of EDP Renováveis. To demonstrate EDPR's financial strength and
18 ability to finance the Project, EDP Renováveis' annual report for fiscal year 2017
19 (the most recent report available) is attached as Petitioner's Attachment RJB-8
20 and is also available online at: [http://annualreport.edprenovaveis.pt/2017/wp-](http://annualreport.edprenovaveis.pt/2017/wp-content/uploads/pdf/EDPR_EN17_WEB.pdf)
21 [content/uploads/pdf/EDPR_EN17_WEB.pdf](http://annualreport.edprenovaveis.pt/2017/wp-content/uploads/pdf/EDPR_EN17_WEB.pdf)

1 **Q46. Will EDPR and EDP Renováveis provide to Petitioner all the necessary**
2 **financial, technical and managerial expertise to construct and operate the**
3 **Project while EDPR is involved with the Project?**

4 A. Yes.

5 **Q47. What does Petitioner request with respect to any future transfer of its assets?**

6 A. Petitioner requests that this Commission grant it treatment similar to that which
7 the Commission has afforded in other declination of jurisdiction orders, i.e.,
8 decline to require prior Commission approval of any transfers of ownership of
9 Project assets or ownership interests in Petitioner involving: (1) the grant of a
10 security interest, mortgage, deed of trust or other encumbrance to a bank or other
11 lender or collateral agent, administrative agent or other security representative, or
12 a trustee on behalf of bondholders in connection with any financing or refinancing
13 (including any lease financing), or any investor, guarantor, equipment supplier or
14 financing entity; (2) EDPR or Petitioner becoming a debtor in possession; or (3) a
15 foreclosure (or deed in lieu of foreclosure) on the property owned by Petitioner.

16 **Q48. Will Petitioner inform the Commission and the OUCC if and when Petitioner**
17 **becomes an affiliated interest of a regulated Indiana retail utility?**

18 A. Yes. Petitioner proposes to file notices in this Cause within one (1) business day
19 after: (a) the date on which EDPR transfers the membership interests in Petitioner
20 to the JV; and (b) the date on which NIPSCO buys out EDPR's ownership
21 interests in the JV.

1 **Q49. Will Petitioner establish and maintain a form of security to ensure that funds**
2 **will be available in the event of abandonment, financial failure, and/or**
3 **bankruptcy to return the Project site to its current condition?**

4 A. Yes. As noted above, Petitioner is required by the applicable county ordinance to
5 provide a decommissioning plan for the Project. This decommissioning plan must
6 include a contractor estimate for demolition and removal of the Project. A form of
7 security for decommissioning will be established in the event of abandonment,
8 financial failure and/or bankruptcy.

9

10

DECLINATION OF JURISDICTION

11

Q50. With regard to the requirements of Ind. Code § 8-1-2.5-5, do technological or
12 **operating conditions, competitive forces, or the extent of regulation by other**
13 **state or federal regulatory bodies render the exercise, in whole or in part, of**
14 **jurisdiction over Petitioner by the Commission unnecessary or wasteful?**

15

A. Yes. The requirements imposed by White County, the rules and regulations of the
16 FERC, and other federal, state and local regulatory agencies adequately address
17 the concerns the Commission should otherwise have and protect the public
18 interest regarding the future operation and wholesale transactions involving the
19 Project. Importantly, the Commission has oversight of the proposed transfer of
20 Petitioner to an affiliated interest of NIPSCO, so the declination of jurisdiction
21 maintains checks and balances on regulatory oversight of Petitioner. In addition,
22 competitive forces in the wholesale power markets serve as an adequate check on
23 these activities, particularly on the wholesale power price. Also, MISO is

1 responsible for the safe and reliable operation and planning, including generation
2 interconnection planning, of the electric transmission systems under their
3 functional control, which includes the NIPSCO transmission system to which the
4 Project will interconnect. Further regulation of these matters by the Commission
5 would be unnecessary and wasteful of the Commission's resources, and
6 burdensome for Petitioner.

7 **Q51. Will the Commission's declining to exercise, in whole or in part, its**
8 **jurisdiction be beneficial for Petitioner, Petitioner's customers or Indiana,**
9 **and promote the efficiency of Petitioner?**

10 A. Yes. Petitioner would benefit from the ability to devote its efforts and resources to
11 complying fully with the requirements of the federal, local, and other state
12 regulatory agencies with jurisdiction over its operations, as well as the
13 requirements of MISO, which would promote the efficiency of Petitioner's
14 ongoing development and operation of the Project. Indiana will benefit from the
15 generation of electric power from wind power generally, and this Project
16 specifically. The exercise of Commission jurisdiction over Petitioner prior to its
17 contemplated transfer to the JV entity would encumber Petitioner with duplicative
18 requirements that are unnecessary in view of other regulatory requirements.
19 Moreover, because the Commission maintains oversight over the proposed
20 transfer to an affiliated interest of NIPSCO, the Commission can ensure the public
21 interest is served by such transfer.

1 **Q52. Would the exercise of Commission jurisdiction inhibit Petitioner in**
2 **competing with other providers of functionally similar energy services or**
3 **equipment?**

4 A. Yes. Should the Commission not decline to exercise jurisdiction over Petitioner,
5 the Commission will be placing Petitioner at a disadvantage with respect to other
6 independent power producers over whom the Commission has declined to
7 exercise jurisdiction. Such regulation would expose Petitioner to the risk of
8 regulatory lag and hinder the quick implementation of business decisions in a
9 highly competitive market, which would create a significant competitive
10 disadvantage for Petitioner. In addition, the Commission's exercise of jurisdiction
11 may compel Petitioner publicly to disclose proprietary information, to its
12 disadvantage. Prior to the transfer of Petitioner to the JV entity, it is important for
13 competitive purposes that Petitioner not be burdened with regulatory oversight
14 that its competitors do not experience. Without a declination of jurisdiction order
15 from the Commission, delays related the procurement of components parts and
16 the Petitioner's ability to achieve milestones established the LGIA may also arise
17 due to the regulatory uncertainty caused by an Indiana wind project not receiving
18 a declination order.

19 **Q53. Does Petitioner agree to the same reporting requirements as have been**
20 **imposed on other wind farms in Indiana?**

21 A. Yes. Petitioner agrees to the following reporting obligations, which have
22 generally been imposed on other wind energy developers:

1 (i) **Initial Report.** Petitioner agrees to file an initial quarterly report
2 within 30 days of the issuance of an Order in this proceeding that
3 will provide, to the extent such information is known and
4 available, the following:

5 (1) Project ownership and name(s) of the facility (the
6 “Facility”);

7 (2) Name, title, address, and phone number(s) for primary
8 contact person(s) for the Facility;

9 (3) Number and location of wind turbines deployed;

10 (4) Anticipated total output of Facility;

11 (5) Manufacturer, model number and operational
12 characteristics of turbines;

13 (6) Connecting utility(s);

14 (7) Copy of any Interconnection System Impact Studies
15 prepared by MISO;

16 (8) Expected in-service (commercial operation) date;

17 (9) An estimate of the engineering/construction timeline and
18 critical milestones for the Facility;

19 (10) The status of the Large Generator Interconnection
20 Agreement with MISO; and

21 (11) The information listed below in the Subsequent Reports
22 section to the extent such information is available.

1 (ii) **Subsequent Reports.** Petitioner agrees to file subsequent reports
2 within 30 days of the end of each calendar quarter until the quarter
3 that occurs after commercial operation is achieved and that
4 immediately precedes the Annual Report filing date of April 30th
5 of each year. Thereafter, Petitioner will file reports on or before
6 April 30th of each year in this Cause. The reports would include the
7 following:

8 (1) Any changes of the information provided in the Initial
9 Report;

10 (2) Any reports of Interconnection System Impact Studies not
11 previously submitted to the Commission;

12 (3) Copy of the Large Generator Interconnection Agreement as
13 filed with FERC;

14 (4) Notice of the establishment of an independent financial
15 instrument, including its form and amount;

16 (5) Achievement of construction milestones described in the
17 Large Generator Interconnection Agreement and such
18 events as the procurement of major equipment, the receipt
19 of major permits material to the construction and operation
20 of the Facility, construction start-up, initial energization
21 and commercial operation; and

22 (6) When commercial operation is achieved, the nameplate
23 existing for utility sales, contingency plans (if any)

1 detailing response plans to emergency conditions as
2 required by state or local units of government, the
3 interconnecting transmission owner and/or MISO, and the
4 Facility's certified (or accredited) dependable capacity
5 rating.

6 **Q54. Does Petitioner also agree to the additional requirements concerning**
7 **material change in Project output or project modification or suspension**
8 **under the terms of the LGIA?**

9 A. Yes. Petitioner agrees to the following additional requirements: In the event that
10 Petitioner intends to materially increase or decrease or otherwise materially
11 change the Project's capacity or operation, the owner must obtain the
12 Commission's prior approval. Petitioner considers a material change to include an
13 increase of greater than three (3) MW or a decrease of greater than twelve (12)
14 MW in the Project's nameplate capacity; a change in operating entities; a transfer
15 of assets; and changes identified in subsequent case law as constituting a material
16 change. Petitioner will notify the Commission in the event that it modifies or
17 suspends the Project under the terms of the LGIA and does not reinstitute work
18 within three (3) years following commencement of such suspension. In the event
19 of a proposed increase greater than 3MW, the Petitioner will provide the
20 Commission with at least thirty (30) days' notice prior to the increase. If the
21 Commission determines that the Petitioner has (a) failed to enter into an
22 agreement pursuant to MISO's generator interconnection procedures; (b)
23 suspended the project under the terms of the LGIA and has not reinstated work

1 within three (3) years following commencement of such suspension; or (c) has
2 otherwise suspended its efforts to complete the Project within three (3) years of its
3 Order, the Commission may, following notice to the Petitioner, proceed to issue
4 an Order terminating the declination of jurisdiction set forth herein.

5 **Q55. Haven't prior Commission declination orders for wind projects included a 3**
6 **MW materiality threshold for a decrease in nameplate capacity in contrast to**
7 **the 12 MW threshold proposed for the Rosewater Project?**

8 A. Yes, they have. In this case, however, while EDPR has made arrangements for all
9 the "safe harbor" components for a nameplate capacity of approximately 102 MW
10 for the Project, the federal production tax credit expires at the end of 2020.
11 Petitioner projects a tight market for wind project components and despite
12 securing contractual rights to components, some components might be difficult to
13 physically obtain despite those contract rights. The end of the federal production
14 tax credit juxtaposed with the requirement of the BTA to achieve commercial
15 operation no later than December 31, 2020, requires Petitioner to seek a higher
16 materiality threshold for a decrease in nameplate capacity. Adjusting the
17 materiality threshold for a decrease in nameplate capacity to 12 MW will also
18 accommodate EDPR's obligations under the BTA, which provide for delivery of
19 the Project with a nameplate capacity of at least 90% of 102 MW for non-force
20 majeure circumstances. If the nameplate capacity of the Project is decreased at all
21 within the materiality thresholds, Petitioner will, of course, report that decrease
22 pursuant to the reporting obligations agreed to above in my testimony.


1 Accordingly, Petitioner requests the ability to decrease the nameplate capacity of
2 the Project by up to 12 MW without impacting the materiality threshold.

3 **Q56. Does this conclude your direct testimony?**

4 A. Yes, it does.

VERIFICATION

I hereby verify under the penalties of perjury that the foregoing representations are true to the best of my knowledge, information, and belief.



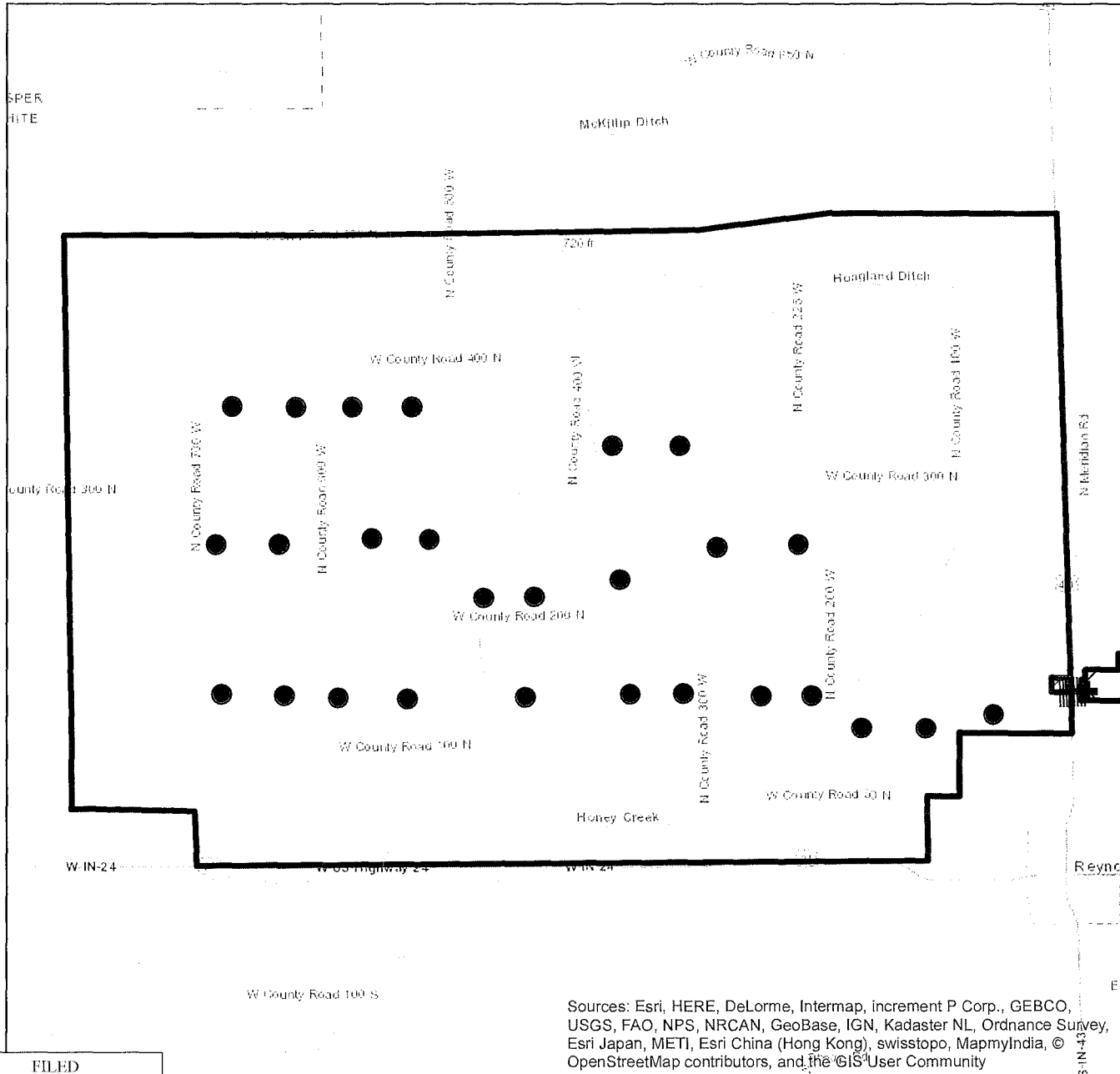
Ryan J. Brown

LIST OF ATTACHMENTS
FOR VERIFIED DIRECT TESTIMONY OF RYAN J. BROWN

Attachment RJB-1	Preliminary Site Map
Attachment RJB-2	Executive Summary of Phase I Environmental Site Assessment
Attachment RJB-3	Site Characterization Study Executive Summary
Attachment RJB-4	Feasibility Study
Attachment RJB-5	System Impact Study
Attachment RJB-6	Large Generator Interconnection Agreement
Attachment RJB-7	Flow Chart Depicting Transfer of Petitioner to JV Entity
Attachment RJB-8	EDP Renováveis' 2017 Annual Report

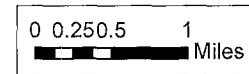
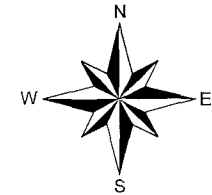
EDPR NA LLC - Rosewater Wind Farm LLC - Preliminary Site Map

Rosewater Wind Farm LLC
Attachment RJB-1
Page 001



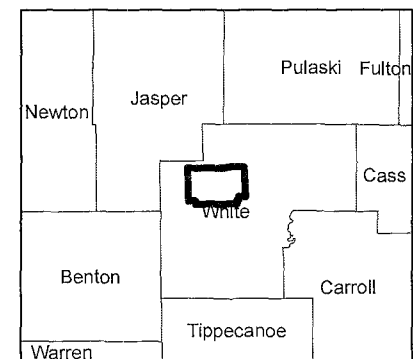
- Turbine Locations
- ✚ NIPSCO_POI
- ▨ RW_ProposedGLL
- ▭ Rosewater_ProjectBoundary
- ▨ RWProposed_Substation
- ▭ Reynolds_Substation

Subject to Change



Date: 1/23/2019
Author: A. Magner

Projection: NAD 1983
Indiana State Plane West



Sources: Esri, HERE, DeLorme, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), swisstopo, MapmyIndia, © OpenStreetMap contributors, and the GIS User Community

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February 1, 2019
INDIANA UTILITY
REGULATORY COMMISSION

45197

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February 20, 2019
INDIANA UTILITY
REGULATORY COMMISSION

Rosewater Wind Farm LLC
Cause No. 45197
Attachment RJB-2
001

ENVIRONMENTAL SITE ASSESSMENT REPORT EXECUTIVE SUMMARY

Rosewater Wind Farm Project Site
Located in Indiana



KTA

PHASE I ENVIRONMENTAL SITE ASSESSMENT REPORT EXECUTIVE SUMMARY

**Rosewater Wind Farm Site
Located in Indiana**

Prepared for:

Rosewater Wind Farm LLC

Prepared by:

**KTA Associates, Inc.
800 Fifth Avenue, Suite 4100
Seattle, WA**

February 15, 2019

EXECUTIVE SUMMARY

KTA Associates, Inc. was retained by Rosewater Wind Farm LLC (herein referred to as "EDPR") to perform a Phase I Environmental Site Assessment (ESA) for property which makes up the Rosewater Wind Farm Project Site located in Indiana (the "Phase I ESA"). The Phase I ESA was developed in February 2019. The property subject to the Phase I ESA is described on the Site Map attached to this Executive Summary (the "Site").

The objective of the Phase I ESA is to identify whether recognized environmental conditions (RECs) are present on the Site by performing an assessment in accordance with ASTM Standard E1527-13. In general, the Phase I ESA involved the completion of the following tasks:

- Obtain and evaluate the following data for property which makes up the Site:
 - Site Description
 - Current and Former Site Use
 - Surrounding Property Use
 - Historical Aerials for the Site
 - Federal, State and Local Environmental Regulatory Information for the Site
 - Mining and Petroleum Development Information for the Site
- Interview landowners for property which makes up the Site.
- Conduct a Site Visit to property which makes up the Site.

A REC was identified during the course of completing the Phase I ESA. The REC resulted from the ERP Iron Ore, LLC facility which is located off-site adjacent to the southeastern portion of the Site. The facility appears to have processed or produced iron pellets. The regulatory record review identified numerous violations. Due to the current and historical use of the facility, there is potential that groundwater could be impacted. The groundwater could migrate to the Site. The location of the potentially contaminated groundwater from this facility is designated as an REC. A conservative REC buffer area (property which potentially could be impacted by the REC) was developed by KTA. EDPR ensured this REC buffer area was excluded from leases for property which makes up the Site. ***As a result, there are no RECs located on the Site.***

A general description of the overall Site follows:

- The Site is approximately 690 feet above sea level (ASL). The unconsolidated sediments on the surface of the Site include drift deposits contributed by glacial action. These geologic processes have created soils consisting of loam, clay, and sand, often thoroughly intermixed. The characteristics of this soil provide ideal conditions for farming and ranching.
- The most notable Site uses are farming, ranching and, to a lesser degree, residences. A general summary of these uses follows:
 - **Farming** – Farming is the most significant use on the Site. Primary crops include corn and soybeans. The primary farming processes that involve hazardous substances and petroleum include mixing and distributing fertilizer, herbicides, and pesticides and mobile fueling of large farm equipment while used in fields. There were no notable vegetation impacts associated with either fertilizer, herbicide and pesticide application, or mobile fueling of farm equipment. This is typical for farmland in the Midwest, given the high

value of farmland and the necessity of ensuring all farmland can produce high yield crops.

- **Livestock Grazing** - Livestock (primarily cattle) grazing occurs on the Site. Wells to provide water for livestock and many hay rolls to provide feed for livestock are in the fields on the Site to support these grazing activities.
- **Residences** - Residences are located throughout the Site. For the most part, the residences are connected to electrical power and natural gas and use drain fields to discharge sanitary wastewater. In some cases, propane is used to heat homes. However, given the expense of propane, most homes have either converted to electricity or natural gas for heat.
- **Hog operations** - Hog operations are located on the Site. The operations consist of closed buildings used to raise and fatten hogs. These operations are highly regulated. The primary waste stream generated at these operations is manure and liquid wastes. The manure is often spread in fields. Liquid wastes are typically contained in a concrete basin beneath the buildings and transported to a central wastewater treatment facility.
- The most notable surrounding property use is associated with Central Farming Operations. These Central Farming Operations are often located on parcels which include property that makes up the Site. A summary of the Central Farming Operations follows:
 - **Central Farming Operations** - Farming on the scale conducted on the Site requires the use of large equipment, including tractors with harvesting equipment and sprayers. This equipment is often maintained and fueled at central farming operation areas. Maintenance of the large equipment includes rebuilding engines and mechanical devices, working on engines, changing engine oil, and fueling. The waste liquids and waste products associated with these activities generally include petroleum-based compounds. Additionally, fertilizer and herbicide mixing is often performed at the central farming operations prior to the mix being placed in sprayers for application on the fields. Based on the reviews completed, it does not appear that the central farming operations impact the Site in a manner that results in the designation of an REC on the Site.

Attachment 1

Site Map

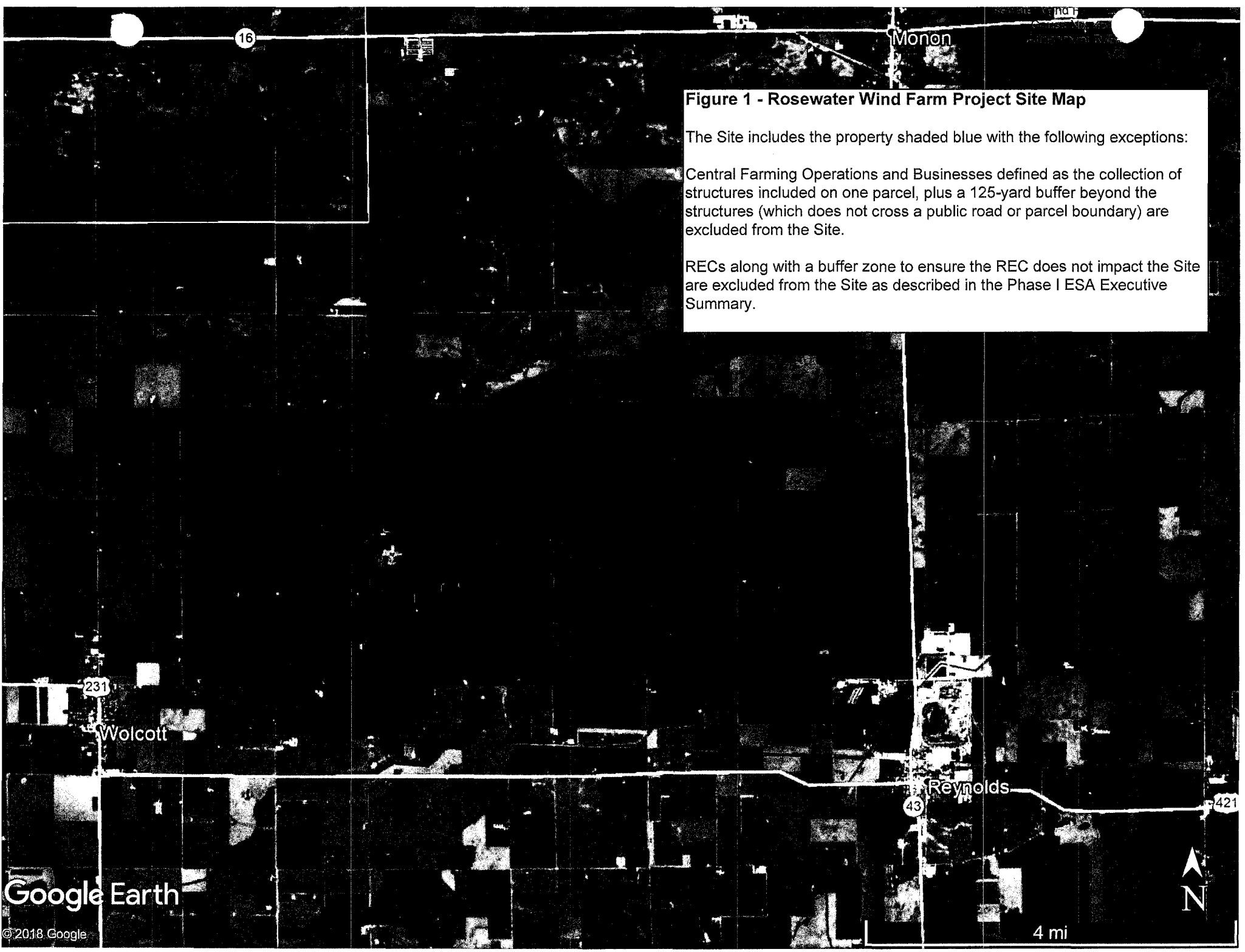


Figure 1 - Rosewater Wind Farm Project Site Map

The Site includes the property shaded blue with the following exceptions:

Central Farming Operations and Businesses defined as the collection of structures included on one parcel, plus a 125-yard buffer beyond the structures (which does not cross a public road or parcel boundary) are excluded from the Site.

RECs along with a buffer zone to ensure the REC does not impact the Site are excluded from the Site as described in the Phase I ESA Executive Summary.

FILED
February 1, 2019
INDIANA UTILITY
REGULATORY COMMISSION

FINAL
Site Characterization Study
Meadow Lake Wind Farm VII
Jasper and White Counties, Indiana

May 2017

Prepared for:

EDP Renewables North America, LLC
808 Travis Street, Suite 700
Houston, TX 77002



Prepared by:

ECOLOGY AND ENVIRONMENT, INC.
33 West Monroe Street, Suite 1410
Chicago, Illinois 60603

Executive Summary

Ecology and Environment, Inc., was contracted by EDP Renewables North America to conduct a Site Characterization Study for the Meadow Lake Wind Farm VII. The Site Characterization Study was conducted in accordance with Tier 2 (site characterization) outlined in the U.S. Fish and Wildlife Service's *Land-Based Wind Energy Guidelines* (USFWS 2012). Ecology and Environment, Inc., reviewed land use and biological resources within the Meadow Lake Wind Farm VII project area, and a 2-mile buffer of the project boundary (collectively, the Evaluation Area). The proposed Meadow Lake Wind Farm VII is located in Jasper and White counties, Indiana, and encompasses 66,558 acres (104 square miles) within the Evaluation Area.

Desktop review methodology included accessing publicly available geographic information system datasets and summarizing the findings for each subject within the geographic limits of the Evaluation Area. Information obtained from publicly available government websites and a site reconnaissance visit was used to supplement the geographic information system data.

No issues that would restrict project development, construction, or operation were identified during the development of the Site Characterization Study. There are federal and state threatened and endangered species that have the potential to occur within or in proximity to the Meadow Lake Wind Farm VII, and coordination with the U.S. Fish and Wildlife Service may be warranted to understand concerns regarding the potential impacts on these species. Species of potential concern include the bald eagle (*Haliaeetus leucocephalus*), Indiana bat (*Myotis sodalis*), and the northern long-eared bat (*Myotis septentrionalis*). The proximity to protected areas of high and diverse migrant and breeding bird concentrations is also a potential concern. The presence of two properties listed in the National Register of Historic Places within the Evaluation Area may also warrant discussion with the U.S. Army Corps of Engineers and the Indiana Department of Natural Resources, Division of Historic Preservation and Archaeology.

The information presented in this report may be used for planning purposes in project development. Prior to project development, it is advisable that the information in this report be verified through more comprehensive on-site investigations (i.e., Tier 3 [field studies and impact prediction] of the U.S. Fish and Wildlife Services' *Land-Based Wind Energy Guidelines*; USFWS 2012) to ensure compliance with all applicable local, state, or federal permit authorities.

MISO Project Number	J513	County	Jasper
Point of Interconnection	Goodland - Reynolds 138kV Line	State	Indiana
Summer Net Output (MW)	102	Control Area	NIPS

Summer Off Peak

Monitored Element	Contingency	DF(%)	Rating (MVA)	Overload (%)	Voltage (kV)
Goodland - Remington 69kV Line Ckt	J513 Tap - Reynolds 138kV Line Ckt 1	43.10%	121	137.52%	69
Honey Creek - Monticello 69kV Line Ckt 99	J513 Tap - Reynolds 138kV Line Ckt 1	18.81%	41	169.27%	69
Honey Creek - Monticello 69kV Line Ckt 99	P1_2_138-109	6.84%	41	103.66%	69
J513 Tap - Reynolds 138kV Line Ckt 1C	P1_2_6966	74.34%	222	121.04%	138
J513 Tap - Reynolds 138kV Line Ckt 1C	Remington - Seafield Junction 69kV Line Ckt 1	74.34%	222	117.57%	138
J513 Tap - Reynolds 138kV Line Ckt 1C	P1_2_69-103	74.31%	222	117.57%	138
J513 Tap - Reynolds 138kV Line Ckt 1	Base Case	63.66%	186	117.26%	138
J513 Tap - Reynolds 138kV Line Ckt 1C	SDNS-WATK-02	80.52%	222	111.58%	138
J513 Tap - Reynolds 138kV Line Ckt 1C	AMIL_SHL_WTS	80.52%	222	111.58%	138
J513 Tap - Reynolds 138kV Line Ckt 1C	PAXE-GIFF-24	65.56%	222	106.13%	138
J513 Tap - Reynolds 138kV Line Ckt 1C	ROCK-JEFF	63.66%	222	105.18%	138
J513 Tap - Reynolds 138kV Line Ckt 1C	Line 05JEFRSO 765.0 to 05ROCKPT 765.0 Circ	63.66%	222	105.18%	138
J513 Tap - Reynolds 138kV Line Ckt 1C	AEP_JEFF_RCK	63.66%	222	105.18%	138
J513 Tap - Reynolds 138kV Line Ckt 1C	B2 AEP Rockp-AEP Jeff 765	63.66%	222	105.18%	138
Monticello - East Winamac 138kV Line Ckt 1	P1_2_SUP-3	9.71%	138	105.00%	138
Remington - Seafield Junction 69kV Line Ckt 1	J513 Tap - Reynolds 138kV Line Ckt 1	43.10%	121	129.01%	69
Seafield Junction - Honey Creek 69kV Line Ckt	J513 Tap - Reynolds 138kV Line Ckt 1	18.81%	41	180.49%	69
Seafield Junction - Honey Creek 69kV Line Ckt	P1_2_138-109	6.84%	41	115.12%	69
Seafield Junction - Honey Creek 69kV Line Ckt	P1_2_13847	6.84%	41	107.56%	69
Seafield Junction - Honey Creek 69kV Line Ckt	Seafield Junction - South Prairie 69kV Line Ckt 1	10.38%	41	105.85%	69

Summer Peak

Monitored Element	Contingency	DF(%)	Rating (MVA)	Overload (%)	Voltage (kV)
N/A	N/A	N/A	N/A	N/A	N/A

DPP Entry Milestone

\$451,840

See Attachment A for M2 Milestone Payment Calculation

N/A indicates no constraints have been found based on the scope of the feasibility screening.

Attachment A

Voltage(kV)	Cost(\$)
345	350,000
230	200,000
161	130,000
138	130,000
115	130,000
69	125,000

M2 Milestone Payment = $10\% \times (\text{Total for Number of Feasibility Constraints per Voltage Level} \times \text{Constant Cost (see chart above) per Voltage Level} + \text{Project Size (MW)} \times \text{Current Schedule 7 MISO Drive-Through and Out Yearly Rate})$
Maximum Cost = \$10,000 per Gross MW, Minimum Cost = \$2,000 per Gross MW

Schedule 7 MISO Drive-Through and Out rate = \$3,572.5824

N/A indicates no constraints have been found based on the scope of the feasibility screening.



45197

Rosewater Wind Farm LLC
Attachment RJB-5
Page 001

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February 1, 2019
INDIANA UTILITY
REGULATORY COMMISSION

MISO DPP 2016 August Central Area Study Phase III Report

May 23, 2018

MISO
720 City Center Drive
Carmel
Indiana - 46032
<http://www.misoenergy.org>



TABLE OF CONTENTS

1. EXECUTIVE SUMMARY.....	4
1.1. Project List.....	4
1.2. Total Network Upgrades.....	5
2. ERIS ANALYSIS	5
2.1. J446, J513, J643 and J648 System Impact Study.....	5
2.2. J456, J474, J641 and J644 System Impact Study.....	6
2.3. Affected System Impact Study	6
3. DELIVERABILITY ANALYSIS.....	8
3.1. Introduction.....	8
3.2. Determining the MW Restriction.....	8
3.3. Deliverability Study Result.....	9
3.3.1. Deliverability Results Based on 2021 Summer Peak Case.....	9
3.3.2. Deliverability Network Upgrades Summary.....	10
4. SHARED NETWORK UPGRADES ANALYSIS	11
5. COST ALLOCATION	11
5.1. Cost Assumptions for Network Upgrades.....	11
5.2. Cost Allocation Methodology	11
APPENDIX A – J446, J513, J643 AND J648 ERIS ANALYSIS STUDY REPORT.....	13
APPENDIX B – J456, J474, J641 AND J644 ERIS ANALYSIS STUDY REPORT.....	13
APPENDIX C - PJM Affected Systems Study Thermal Report	14
APPENDIX D - PJM Affected Systems Dynamic Analysis Report	14
APPENDIX D	



LIST OF TABLES

Table 1-1 List of DPP August 2016 Central Area Phase II Projects.....	4
Table 1-2 Total Cost of Network Upgrades for DPP 2016 August Central Phase II Projects	5
Table 2-1 Planning Level Cost Estimation	6
Table 2-2 Planning Level Cost Estimation	6
Table 3-1 J446 Deliverability Summary	9
Table 3-2 J456 Deliverability Summary	9
Table 3-3 J474 Deliverability Summary	9
Table 3-4 J513 Deliverability Summary	10
Table 3-5 J641 Deliverability Summary	10
Table 3-6 J643 Deliverability Summary	10
Table 3-7 J644 Deliverability Summary	10
Table 3-8 J648 Deliverability Summary	10
Table 3-9 NRIS Constraints and Cost Estimate	11



1. EXECUTIVE SUMMARY

This report presents the results of a System Impact Study (SIS) performed to re-evaluate the interconnection of the generators in the DPP 2016 August Central Area Phase III (Central Area DPP3). The study was performed under the direction of MISO and reviewed by an ad hoc study group. The ad hoc study group was formed to review the study scope, methodology, models and results. The ad hoc study group consisted of representatives from the interconnection customers and the following utility companies – Ameren, American Electric Power, Big Rivers Electric Corporation, City of Springfield (IL) Water Light & Power, Columbia (MO) Water and Light, Commonwealth Edison, Duke Energy Midwest, Hoosier Energy, Indianapolis Power & Light, MISO, Northern Indiana Public Service, PJM, Southern Illinois Power Cooperative, and Vectren.

1.1. PROJECT LIST

The original interconnection requests for DPP 2016 August Central Area had twelve (12) generation projects. Project J649 was withdrawn at the beginning of Phase I study, and based on Phase I study results (Decision Point I), three projects J573, J595, and J642 were withdrawn from the current study cycle. The output of J446 was reduced to 145MW in NRIS and ERIS. The output of J641 was reduced to 111MW in NRIS and kept full 140MW in ERIS. Therefore, there are eight (8) generation projects with a combined nameplate rating of 1260.05MW (ERIS) / 1231.05 MW (NRIS). The detailed list of Central Area DPP3 is shown in Table 1- 1, and the Phase III study was kicked off on January 18th, 2018.

Table 1-1 List of DPP August 2016 Central Area Phase III Projects

Project	Fuel Type	TO	County	State	Service Requested	MW	POI
J446	Wind	DEI	Clinton	IN	NRIS	145	Frankfort-New London 230 kV
J456	Wind	AMRN	McDonough	IL	NRIS	150	Niota-Macomb Northeast 138 kV
J474	Wind	AMRN	DeWitt	IL	NRIS	144	Tabor 138 kV
J513	Wind	NIPSCO	White	IN	NRIS	100.05	Reynolds 138 kV
J641	Solar	AMRN	Morgan, Scott	IL	NRIS	140(ERIS) 111(NRIS)	Meredosia East - Jacksonville Industrial Park 138 kV
J643	Solar	NIPSCO	Jasper	IL	NRIS	175	RM Schahfer-Starke 138 kV
J644	Solar	AMRN	Greene, Scott	IL	NRIS	110	Jerseyville Northwest 138 kV
J648	Gas	CE	Cook	IL	External NRIS	296	SCEP switchyard 138 kV



1.2. TOTAL NETWORK UPGRADES

The cost allocation of Network Upgrades for the projects in the DPP 2016 August Central Cycle Phase II reflects responsibilities for mitigating system impacts. The total cost of network upgrades is listed in Table 1-2 as shown below. The costs for Network Upgrades are planning level estimates and subject to be revised in the facility studies.

Table 1-2 Total Cost of Network Upgrades for DPP 2016 August Central Phase III Projects

Project	ERIS Network Upgrades (\$)				NRIS Network Upgrades (\$)	Interconnection Facilities (\$)		Shared Network Upgrade (\$)	Total Cost (TOIF not included) (\$)
	Steady State	Stability	Short Circuit	Affected System	Deliverability	TO Network Upgrades	TO - Owned Direct Assigned		
J446	\$0	\$0	\$0	\$0	\$0	\$8,521,252	NA	\$0	\$0
J456	\$0	\$0	\$0	\$0	\$0	\$5,592,000	\$524,000	\$0	\$0
J474	\$0	\$0	\$0	\$0	\$0	\$0	\$524,000	\$0	\$0
J513	\$0	\$0	\$0	\$0	\$0	\$8,133,276	NA	\$0	\$0
J641	\$0	\$0	\$0	\$0	\$0	\$5,941,000	\$524,000	\$0	\$0
J643	\$0	\$0	\$0	\$0	\$0	\$8,993,010	NA	\$0	\$0
J644	\$0	\$0	\$0	\$0	\$0	\$378,000	\$524,000	\$0	\$0
J648	\$0	\$0	\$0	\$0	\$0	\$0	NA	\$0	\$0

2. ERIS ANALYSIS

2.1. J446, J513, J643 AND J648 SYSTEM IMPACT STUDY

J446, J513, J643 and J648 system impact study were performed by ABB under the direction of MISO and ad hoc group to identify network upgrades required to interconnect those requests in the DPP 2016 August Central Area group to the transmission system. System constraints were identified and the planning level cost estimates for the network upgrade are shown in Table 2-1. The detailed study report is listed in Appendix A.



Table 2-1 Planning Level Cost Estimation

Project	ERIS Network Upgrades (\$)			Interconnection Facilities (\$)		Total Cost (TOIF not included) (\$)
	Steady State	Stability	Short Circuit	TO Network Upgrades	TO - Owned Direct Assigned	
J446	\$0	\$0	\$0	\$8,521,252	NA	\$0
J513	\$0	\$0	\$0	\$8,133,276	NA	\$0
J643	\$0	\$0	\$0	\$8,993,010	NA	\$0
J648	\$0	\$0	\$0	\$0	NA	\$0

2.2. J456, J474, J641 AND J644 SYSTEM IMPACT STUDY

J456, J474, J641 and J644 system impact study was performed by Ameren under the direction of MISO and ad hoc group to identify network upgrades required to interconnect those requests in the DPP 2016 August Central Area group to the transmission system. The required system upgrades are identified in the analysis and the planning level cost estimates are shown in Table 2-2. The detailed study report is listed in Appendix B.

Table 2-2 Planning Level Cost Estimation

Project	ERIS Network Upgrades (\$)			Interconnection Facilities (\$)		Total Cost (TOIF not included) (\$)
	Steady State	Stability	Short Circuit	TO Network Upgrades	TO - Owned Direct Assigned	
J456	\$0	\$0	\$0	\$5,592,000	\$524,000	\$0
J474	\$0	\$0	\$0	\$0	\$524,000	\$0
J641	\$0	\$0	\$0	\$5,941,000	\$524,000	\$0
J644	\$0	\$0	\$0	\$378,000	\$524,000	\$0

2.3. AFFECTED SYSTEM IMPACT STUDY

J446

No mitigations were found to be required.

J456

If J456 goes into service prior to PJM Network Upgrade B2732.1, which has an in-service date of June 2019, an interim study by PJM would be required to address overloads of AB1-122 – Kendall 345 kV and AB1-122 Tap – Dresden 345 kV lines.

J474



No mitigations were found to be required.

J513

No mitigations were found to be required.

J641

No mitigations were found to be required.

J643

No mitigations were found to be required.

J644

No mitigations were found to be required.

J648

No mitigations were found to be required.

3. DELIVERABILITY ANALYSIS

3.1. INTRODUCTION

Generator interconnection requests have to pass Generator Deliverability Study to be granted Network Resource Interconnection Services (NRIS). If the generator is determined as not fully deliverable, the customer can either choose to elect the amount of NRIS available without upgrades or build system upgrades that will make the generator fully deliverable. Generator Deliverability Study ensures that the Network Resources, on an aggregate basis, can meet the MISO aggregate load requirements during system peak condition without getting bottled up.

MISO Generator Deliverability Study whitepaper describing the algorithm can be found at http://www.midwestmarket.org/publish/Document/3e2d0_106c60936d4_-767f0a48324a

3.2. DETERMINING THE MW RESTRICTION

If one facility is overloaded based on the assessed “severe yet credible dispatch” scenario described in the study methodology, and the generator under study is in the “Top 30 DF List” (see white paper for detail), part or all of its output is not deliverable. The restricted MW is calculated as following:



$$(\text{MW restricted}) = (\text{worst loading} - \text{MW rating}) / (\text{generator sensitivity factor})$$

If the result is larger than the maximum output of the generator, 100% of this generator’s output is not deliverable.

The generator is also responsible for any NEW base case (pre-shift) overload or NEW “severe yet credible dispatch overload” where the generator is not in the “Top 30 DF List”, if the generator’s DF is greater than 5%. Please see white paper for detail. The formula above also applies to these situations.

3.3. DELIVERABILITY STUDY RESULT

3.3.1. Deliverability Results Based on 2021 Summer Peak Case

J446

J446 is found 100% (145 MW) deliverable. Detailed study results are included in Table 3-1.

Table 3-1 J446 Deliverability Summary

J446 Deliverable (NRIS) Amount in 2021 Case: (Conditional on ERIIS upgrades and case assumptions)	145 MW (100%)
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J456

J456 is found 100% (150 MW) deliverable. Detailed study results are included in Table 3-2.

Table 3-2 J456 Deliverability Summary

J456 Deliverable (NRIS) Amount in 2021 Case: (Conditional on ERIIS upgrades and case assumptions)	150 MW (100%)
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J474

J474 is found 100% (144 MW) deliverable. Detailed study results are included in Table 3-3.

Table 3-3 J474 Deliverability Summary

J474 Deliverable (NRIS) Amount in 2021 Case: (Conditional on ERIIS upgrades and case assumptions)	111 MW (100%)
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J513

J513 is found 100% (100.05 MW) deliverable. Detailed study results are included in Table 3-4.

Table 3-4 J513 Deliverability Summary

J513 Deliverable (NRIS) Amount in 2021 Case: (Conditional on ERIS upgrades and case assumptions)	100.05 MW (100%)
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J641

J641 is found 100% (111 MW) deliverable. Detailed study results are included in Table 3-5.

Table 3-5 J641 Deliverability Summary

J641 Deliverable (NRIS) Amount in 2021 Case: (Conditional on ERIS upgrades and case assumptions)	111 MW (100%)
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J643

J643 is found 100% (175 MW) deliverable. Detailed study results are included in Table 3-6.

Table 3-6 J643 Deliverability Summary

J643 Deliverable (NRIS) Amount in 2021 Case: (Conditional on ERIS upgrades and case assumptions)	175 MW (100%)
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J644

J644 is found 100% (110 MW) deliverable. Detailed study results are included in Table 3-7.

Table 3-7 J644 Deliverability Summary

J644 Deliverable (NRIS) Amount in 2021 Case: (Conditional on ERIS upgrades and case assumptions)	110 MW (100%)
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J648

J648 is found 100% (296 MW) deliverable. Detailed study results are included in Table 3-8.

Table 3-8 J648 Deliverability Summary

J648 Deliverable (NRIS) Amount in 2021 Case: (Conditional on ERIS upgrades and case assumptions)	296 MW (100%)
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3.3.2. Deliverability Network Upgrades Summary

The cost estimate for proposed network upgrades is listed in Table 3-9.

Table 3-9 NRIS Constraints and Cost Estimate

Monitored Element	Mitigation	Planning Level Cost	Queue Projects with Impacts
None	None		

4. SHARED NETWORK UPGRADES ANALYSIS

Shared Network Upgrade (SNU) test for Network Upgrades driven by higher queued interconnection project was performed for this System Impact Study. No SNU were found for DPP August 2016 Central Area Projects.

5. COST ALLOCATION

The cost allocation of Network Upgrades for the study group reflects responsibilities for mitigating system impacts based on Interconnection Customer-elected level of Network Resource Interconnection service as of the draft System Impact Study report date.

5.1. COST ASSUMPTIONS FOR NETWORK UPGRADES

The cost estimate for each network upgrade identified in System Impact Study was provided by the corresponding transmission owning company.

5.2. COST ALLOCATION METHODOLOGY

The costs of Network Upgrades (NU) for a set of generation projects (one or more sub-groups or entire group with identified NU) are allocated based on the MW impact from each project on the constrained facilities in the Post Case.

Cost Allocation Methodology for Thermal Constraint

1. With all Group Study generation projects dispatched in the Post Case, all thermal constraints are identified.



2. Distribution factor from each project on each constraint is obtained.
3. For each thermal constraint, the maximum MW contribution (increasing flow) from each project is then calculated in the Post Case without any network upgrades.
4. For each thermal constraint, the cost estimates for one or a subset of NU are provided by the corresponding transmission owning company.
5. Then the cost of each NU is allocated based on the pro rata share of the MW contribution from each project on the constraints mitigated or partly mitigated by this NU. The methodology to determine the cost allocation of one NU is:

Project A cost portion of NU

$$= \text{Cost of NU} * \frac{\text{Max(Proj. A MW contribution on constraint)}}{\sum_i \text{Max(Proj. i MW contribution on constraint)}}$$

6. The total NU costs for each project are calculated if more than one NU is required.



APPENDIX A – ABB System Impact Study Report

APPENDIX B – Ameren System Impact Study Report

APPENDIX C – Ameren Stability Report

APPENDIX D – PJM Affected Systems Study Thermal Report

APPENDIX E – PJM Affected Systems Study Stability Report

GENERATOR INTERCONNECTION AGREEMENT (GIA)

THIS GENERATOR INTERCONNECTION AGREEMENT (“GIA”) is made and entered into this 15th day of August 2018, by and between **Rosewater Wind Farm LLC**, a limited liability company organized and existing under the laws of the State of Delaware (“Interconnection Customer” with a Generating Facility), and **Northern Indiana Public Service Company LLC (“NIPSCO”)**, a limited liability corporation organized and existing under the laws of the State of Indiana (“Transmission Owner”), and the **Midcontinent Independent System Operator, Inc.**, a non-profit, non-stock corporation organized and existing under the laws of the State of Delaware (“Transmission Provider”). Interconnection Customer, Transmission Owner and Transmission Provider each may be referred to as a “Party,” or collectively as the “Parties.”

RECITALS

WHEREAS, Transmission Provider has functional control of the operations of the Transmission System, as defined herein, and is responsible for providing Transmission Service and Interconnection Service on the transmission facilities under its control; and

WHEREAS, Interconnection Customer intends to own, lease and/or control and operate the Generating Facility identified as a Generating Facility in Appendix A to this GIA; and

WHEREAS, Transmission Owner owns or operates the Transmission System, whose operations are subject to the functional control of Transmission Provider, to which Interconnection Customer desires to connect the Generating Facility, and may therefore be required to construct certain Interconnection Facilities and Network Upgrades, as set forth in this GIA; and

WHEREAS, Interconnection Customer, Transmission Owner and Transmission Provider have agreed to enter into this GIA, and where applicable subject to Appendix H for a provisional GIA, for the purpose of interconnecting the Generating Facility with the Transmission System;

NOW, THEREFORE, in consideration of and subject to the mutual covenants contained herein, it is agreed:

ARTICLE 1. DEFINITIONS

When used in this GIA, terms with initial capitalization that are not defined in Article 1 shall have the meanings specified in the Article in which they are used. Those capitalized terms used in this GIA that are not otherwise defined in this GIA have the meaning set forth in the Tariff.

Adverse System Impact shall mean the negative effects due to technical or operational limits on conductors or equipment being exceeded that may compromise the safety and reliability of the electric system.

Affected System shall mean an electric transmission or distribution system or the electric system associated with an existing generating facility or of a higher queued Generating Facility, which is an electric system other than the Transmission Owner's Transmission System that is affected by the Interconnection Request. An Affected System may or may not be subject to FERC jurisdiction.

Affected System Operator shall mean the entity that operates an Affected System.

Affiliate shall mean, with respect to a corporation, partnership or other entity, each such other corporation, partnership or other entity that directly or indirectly, through one or more intermediaries, controls, is controlled by, or is under common control with, such corporation, partnership or other entity.

Ancillary Services shall mean those services that are necessary to support the transmission of capacity and energy from resources to loads while maintaining reliable operation of the Transmission System in accordance with Good Utility Practice.

Applicable Laws and Regulations shall mean all duly promulgated applicable federal, state and local laws, regulations, rules, ordinances, codes, decrees, judgments, directives, or judicial or administrative orders, permits and other duly authorized actions of any Governmental Authority having jurisdiction over the Parties, their respective facilities and/or the respective services they provide.

Applicable Reliability Council shall mean the Regional Entity of NERC applicable to the Local Balancing Authority of the Transmission System to which the Generating Facility is directly interconnected.

Applicable Reliability Standards shall mean Reliability Standards approved by the Federal Energy Regulatory Commission (FERC) under section 215 of the Federal Power Act, as applicable.

Base Case shall mean the base case power flow, short circuit, and stability databases used for the Interconnection Studies by Transmission Provider or Interconnection Customer.

Breach shall mean the failure of a Party to perform or observe any material term or condition of this GIA.

Breaching Party shall mean a Party that is in Breach of this GIA.

Business Day shall mean Monday through Friday, excluding Federal Holidays.

Calendar Day shall mean any day including Saturday, Sunday or a Federal Holiday.

Commercial Operation shall mean the status of a Generating Facility that has commenced generating electricity for sale, excluding electricity generated during Trial Operation.

Commercial Operation Date (COD) of a unit shall mean the date on which the Generating Facility commences Commercial Operation as agreed to by the Parties pursuant to Appendix E to this GIA.

Common Use Upgrade (CUU) shall mean an Interconnection Facility, Network Upgrade, System Protection Facility, or any other classified addition, alteration, or improvement on the Transmission System or the transmission system of an Affected System, not classified under Attachment FF as a Baseline Reliability Project, Market Efficiency Project, or Multi-Value Project, that is needed for the interconnection of multiple Interconnection Customers' Generating Facilities and which is the shared responsibility of such Interconnection Customers.

Confidential Information shall mean any proprietary or commercially or competitively sensitive information, trade secret or information regarding a plan, specification, pattern, procedure, design, device, list, concept, policy or compilation relating to the present or planned business of a Party, or any other information as specified in Article 22, which is designated as confidential by the Party supplying the information, whether conveyed orally, electronically, in writing, through inspection, or otherwise, that is received by another Party.

Default shall mean the failure of a Breaching Party to cure its Breach in accordance with Article 17 of this GIA.

Definitive Planning Phase Queue Position shall mean the order of a valid Interconnection Request, relative to all other pending valid Interconnection Requests, in the Definitive Planning Phase. The Definitive Planning Phase Queue Position is established based upon the date Interconnection Customer satisfies all of the requirements of Section 7.2 to enter the Definitive Planning Phase.

Demonstrated Capability shall mean the continuous net real power output that the Generating Facility is required to demonstrate in compliance with Applicable Reliability Standards.

Dispute Resolution shall mean the procedure for resolution of a dispute between or among the Parties in which they will first attempt to resolve the dispute on an informal basis.

Distribution System shall mean the Transmission Owner's facilities and equipment, or the Distribution System of another party that is interconnected with the Transmission Owner's Transmission System, if any, connected to the Transmission System, over which facilities Transmission Service or Wholesale Distribution Service under the Tariff is available at the time Interconnection Customer has requested interconnection of a Generating Facility for the purpose of either transmitting electric energy in interstate commerce or selling electric energy at wholesale in interstate commerce and which are used to transmit electricity to ultimate usage points such as homes and industries directly from nearby generators or from interchanges with higher voltage transmission networks which transport bulk power over longer distances. The voltage levels at which distribution systems operate differ among Local Balancing Authorities and other entities owning distribution facilities interconnected to the Transmission System.

Distribution Upgrades shall mean the additions, modifications, and upgrades to the Distribution System at or beyond the Point of Interconnection to facilitate interconnection of the Generating Facility and render the delivery service necessary to affect Interconnection Customer's wholesale sale of electricity in interstate commerce. Distribution Upgrades do not include Interconnection Facilities.

Effective Date shall mean the date on which this GIA becomes effective upon execution by the Parties subject to acceptance by the Commission, or if filed unexecuted, upon the date specified by the Commission.

Emergency Condition shall mean a condition or situation: (1) that in the reasonable judgment of the Party making the claim is imminently likely to endanger, or is contributing to the endangerment of, life, property, or public health and safety; or (2) that, in the case of either Transmission Provider or Transmission Owner, is imminently likely (as determined in a non-discriminatory manner) to cause a material adverse effect on the security of, or damage to the Transmission System, Transmission Owner's Interconnection Facilities or the electric systems of others to which the Transmission System is directly connected; or (3) that, in the case of Interconnection Customer, is imminently likely (as determined in a non-discriminatory manner) to cause a material adverse effect on the security of, or damage to, the Generating Facility or Interconnection Customer's Interconnection Facilities. System restoration and blackstart shall be considered Emergency Conditions; provided that Interconnection Customer is not obligated by this GIA to possess blackstart capability. Any condition or situation that results from lack of sufficient generating capacity to meet load requirements or that results solely from economic conditions shall not constitute an Emergency Condition, unless one of the enumerated conditions or situations identified in this definition also exists.

Energy Displacement Agreement shall mean an agreement between an Interconnection Customer with an existing generating facility on the Transmission Provider's Transmission System and an Interconnection Customer with a proposed Generating Facility seeking to interconnect with Net Zero Interconnection Service. The Energy Displacement Agreement specifies the term of operation, the Generating Facility Interconnection Service limit, and the mode of operation for energy production (common or singular operation).

Energy Resource Interconnection Service (ER Interconnection Service) shall mean an Interconnection Service that allows Interconnection Customer to connect its Generating Facility to the Transmission System or Distribution System, as applicable, to be eligible to deliver the Generating Facility's electric output using the existing firm or non-firm capacity of the Transmission System on an as available basis. Energy Resource Interconnection Service does not convey transmission service.

Engineering & Procurement (E&P) Agreement shall mean an agreement that authorizes Transmission Owner to begin engineering and procurement of long lead-time items necessary for the establishment of the interconnection in order to advance the implementation of the Interconnection Request.

Environmental Law shall mean Applicable Laws or Regulations relating to pollution or protection of the environment or natural resources.

Federal Holiday shall mean a Federal Reserve Bank holiday for a Party that has its principal place of business in the United States and a Canadian Federal or Provincial banking holiday for a Party that has its principal place of business located in Canada.

Federal Power Act shall mean the Federal Power Act, as amended, 16 U.S.C. §§ 791a *et seq.*

FERC shall mean the Federal Energy Regulatory Commission, also known as Commission, or its successor.

Force Majeure shall mean any act of God, labor disturbance, act of the public enemy, war, insurrection, riot, fire, storm or flood, explosion, breakage or accident to machinery or equipment, any order, regulation or restriction imposed by governmental, military or lawfully established civilian authorities, or any other cause beyond a Party's control. A Force Majeure event does not include an act of negligence or intentional wrongdoing by the Party claiming Force Majeure.

Generating Facility shall mean Interconnection Customer's device(s) for the production and/or storage for later injection of electricity identified in the Interconnection Request, but shall not include the Interconnection Customer's Interconnection Facilities.

Generating Facility Capacity shall mean the net capacity of the Generating Facility and the aggregate net capacity of the Generating Facility where it includes multiple energy production devices.

Generator Interconnection Agreement (GIA) shall mean the form of interconnection agreement, set forth herein.

Generator Interconnection Procedures (GIP) shall mean the interconnection procedures set forth in Attachment X of the Tariff.

Generator Upgrades shall mean the additions, modifications, and upgrades to the electric system of an existing generating facility or of a higher queued Generating Facility at or beyond the Point of Interconnection to facilitate interconnection of the Generating Facility and render the Transmission Service necessary to affect Interconnection Customer's wholesale sale of electricity in interstate commerce.

Good Utility Practice shall mean any of the practices, methods and acts engaged in or approved by a significant portion of the electric industry during the relevant time period, or any of the practices, methods and acts which, in the exercise of reasonable judgment in light of the facts known at the time the decision was made, could have been expected to accomplish the desired result at a reasonable cost consistent with good business practices, reliability, safety and expedition. Good Utility Practice is not intended to be limited to the optimum practice, method, or act to the exclusion of all others, but rather to be acceptable practices, methods, or acts generally accepted in the region.

Governmental Authority shall mean any federal, state, local or other governmental regulatory or administrative agency, court, commission, department, board, or other governmental subdivision, legislature, rulemaking board, tribunal, or other governmental authority having jurisdiction over the Parties, their respective facilities, or the respective services they provide, and exercising or entitled to exercise any administrative, executive, police, or taxing authority or power; provided, however, that such term does not include Interconnection Customer, Transmission Provider, Transmission Owner, or any Affiliate thereof.

Group Study(ies) shall mean the process whereby more than one Interconnection Request is studied together, instead of serially, for the purpose of conducting one or more of the required Studies.

Hazardous Substances shall mean any chemicals, materials or substances defined as or included in the definition of "hazardous substances," "hazardous wastes," "hazardous materials," "hazardous constituents," "restricted hazardous materials," "extremely hazardous substances," "toxic substances," "radioactive substances," "contaminants," "pollutants," "toxic pollutants" or words of similar meaning and regulatory effect under any applicable Environmental Law, or any other chemical, material or substance, exposure to which is prohibited, limited or regulated by any applicable Environmental Law.

HVDC Facilities shall mean the high voltage direct current transmission facilities, including associated alternating current facilities, if any, that are subject to Section 27A of the Tariff and that are specifically identified in (i) any Agency Agreement pertaining to such facilities between Transmission Provider and Transmission Owner that owns or operates such facilities, or (ii) in any other arrangement that permits or will permit Transmission Provider to provide HVDC Service over such facilities as set forth in Section 27A of the Tariff.

HVDC Service shall mean Firm and Non-Firm Point-To-Point Transmission Service provided by Transmission Provider on HVDC Facilities pursuant to Section 27A of the Tariff.

Initial Synchronization Date shall mean the date upon which the Generating Facility is initially synchronized and upon which Trial Operation begins.

In-Service Date (ISD) shall mean the date upon which Interconnection Customer reasonably expects it will be ready to begin use of the Transmission Owner's Interconnection Facilities to obtain backfeed power.

Interconnection Customer shall mean any entity, including Transmission Provider, Transmission Owner or any of the Affiliates or subsidiaries of either, that proposes to interconnect its Generating Facility with the Transmission System.

Interconnection Customer's Interconnection Facilities (ICIF) shall mean all facilities and equipment, as identified in Appendix A of this GIA, that are located between the Generating Facility and the Point of Change of Ownership, including any modification, addition, or upgrades to such facilities and equipment necessary to physically and electrically interconnect the Generating Facility to the Transmission System or Distribution System, as applicable. Interconnection Customer's Interconnection Facilities are sole use facilities.

Interconnection Facilities shall mean the Transmission Owner's Interconnection Facilities and the Interconnection Customer's Interconnection Facilities. Collectively, Interconnection Facilities include all facilities and equipment between the Generating Facility and the Point of Interconnection, including any modification, additions or upgrades that are necessary to physically and electrically interconnect the Generating Facility to the Transmission System. Interconnection Facilities shall not include Distribution Upgrades, Generator Upgrades, Stand Alone Network Upgrades or Network Upgrades.

Interconnection Facilities Study shall mean a study conducted by Transmission Provider, or its agent, for Interconnection Customer to determine a list of facilities (including Transmission Owner's Interconnection Facilities, System Protection Facilities, and if such upgrades have been determined, Network Upgrades, Distribution Upgrades, Generator Upgrades, Common Use Upgrades, and upgrades on Affected Systems, as identified in the Interconnection System Impact Study), the cost of those facilities, and the time required to interconnect the Generating Facility with the Transmission System.

Interconnection Facilities Study Agreement shall mean the form of agreement contained in Appendix 4 of the Generator Interconnection Procedures for conducting the Interconnection Facilities Study.

Interconnection Request shall mean an Interconnection Customer's request, in the form of Appendix 1 to the Generator Interconnection Procedures, to interconnect a new Generating Facility, or to increase the capacity of, or make a Material Modification to the operating characteristics of, an existing Generating Facility that is interconnected with the Transmission System.

Interconnection Service shall mean the service provided by Transmission Provider associated with interconnecting the Generating Facility to the Transmission System and enabling

it to receive electric energy and capacity from the Generating Facility at the Point of Interconnection, pursuant to the terms of this GIA and, if applicable, the Tariff.

Interconnection Study (or Study) shall mean any of the studies described in the Generator Interconnection Procedures.

Interconnection Study Agreement shall mean the form of agreement contained in Attachment B to Appendix 1 of the Generator Interconnection procedures for conducting all studies required by the Generator Interconnection Procedures.

Interconnection System Impact Study shall mean an engineering study that evaluates the impact of the proposed interconnection on the safety and reliability of Transmission System and, if applicable, an Affected System. The study shall identify and detail the system impacts that would result if the Generating Facility were interconnected without project modifications or system modifications, or to study potential impacts, including but not limited to those identified in the Scoping Meeting as described in the Generator Interconnection Procedures.

IRS shall mean the Internal Revenue Service.

Local Balancing Authority shall mean an operational entity or a Joint Registration Organization which is (i) responsible for compliance with the subset of NERC Balancing Authority Reliability Standards defined in the Balancing Authority Agreement for their local area within the MISO Balancing Authority Area, (ii) a Party to Balancing Authority Agreement, excluding MISO, and (iii) provided in the Balancing Authority Agreement.

Loss shall mean any and all damages, losses, claims, including claims and actions relating to injury to or death of any person or damage to property, demand, suits, recoveries, costs and expenses, court costs, attorney fees, and all other obligations by or to third parties, arising out of or resulting from the other Party's performance, or non-performance of its obligations under this GIA on behalf of the indemnifying Party, except in cases of gross negligence or intentional wrongdoing, by the indemnified party.

Material Modification shall mean those modifications that have a material impact on the cost or timing of any Interconnection Request with a later queue priority date.

Metering Equipment shall mean all metering equipment installed or to be installed at the Generating Facility pursuant to this GIA at the metering points, including but not limited to instrument transformers, MWh-meters, data acquisition equipment, transducers, remote terminal unit, communications equipment, phone lines, and fiber optics.

Monitoring and Consent Agreement shall mean an agreement that defines the terms and conditions applicable to a Generating Facility acquiring Net Zero Interconnection Service. The Monitoring and Consent Agreement will list the roles and responsibilities of an Interconnection Customer seeking to interconnect with Net Zero Interconnection Service and Transmission Owner to maintain the total output of the Generating Facility inside the parameters delineated in the GIA.

NERC shall mean the North American Electric Reliability Corporation or its successor organization.

Net Zero Interconnection Service shall mean a form of ER Interconnection Service that allows Interconnection Customer to alter the characteristics of an existing generating facility, with the consent of the existing generating facility, at the same POI such that the Interconnection Service limit remains the same.

Network Customer shall have that meaning as provided in the Tariff.

Network Resource shall mean any designated generating resource owned, purchased, or leased by a Network Customer under the Tariff. Network Resources do not include any resource, or any portion thereof, that is committed for sale to third parties or otherwise cannot be called upon to meet the Network Customer's Network Load on a non-interruptible basis.

Network Resource Interconnection Service (NR Interconnection Service) shall mean an Interconnection Service that allows Interconnection Customer to integrate its Generating Facility with the Transmission System in the same manner as for any Generating Facility being designated as a Network Resource. Network Resource Interconnection Service does not convey transmission service. Network Resource Interconnection Service shall include any network resource interconnection service established under an agreement with, or the tariff of, a Transmission Owner prior to integration into MISO, that is determined to be deliverable through the integration deliverability study process.

Network Upgrades shall mean the additions, modifications, and upgrades to the Transmission System required at or beyond the point at which the Interconnection Facilities connect to the Transmission System or Distribution System, as applicable, to accommodate the interconnection of the Generating Facility to the Transmission System. Network Upgrade shall not include any HVDC Facility Upgrades.

Notice of Dispute shall mean a written notice of a dispute or claim that arises out of or in connection with this GIA or its performance.

Operating Horizon Study shall mean an Interconnection System Impact Study that includes in service transmission and generation for an identified timeframe to determine either the available injection capacity of an Interconnection Request or Interconnection Facilities and/or Transmission System changes required for the requested Interconnection Service.

Optional Interconnection Study shall mean a sensitivity analysis based on assumptions specified by Interconnection Customer in the Optional Interconnection Study Agreement.

Optional Interconnection Study Agreement shall mean the form of agreement contained in Appendix 5 of the Generator Interconnection Procedures for conducting the Optional Interconnection Study.

Party or Parties shall mean Transmission Provider, Transmission Owner, Interconnection Customer, or any combination of the above.

Planning Horizon Study shall mean an Interconnection System Impact Study that includes a future year study to determine either the available injection capacity of an Interconnection Request or Interconnection Facilities and/or Transmission System changes required for the requested Interconnection Service.

Point of Change of Ownership (PCO) shall mean the point, as set forth in Appendix A to the Generator Interconnection Agreement, where the Interconnection Customer's Interconnection Facilities connect to the Transmission Owner's Interconnection Facilities.

Point of Interconnection (POI) shall mean the point, as set forth in Appendix A of the GIA, where the Interconnection Facilities connect to the Transmission System.

Provisional Interconnection Study shall mean an engineering study, performed at Interconnection Customer's request, as a condition to entering into a provisional GIA, that evaluates the impact of the proposed interconnection on the safety and reliability of the Transmission System and, if applicable, any Affected System. The study shall identify and detail the impacts on the Transmission System and, if applicable, an Affected System, from stability, short circuit, and voltage issues that would result if the Generating Facility were interconnected without project modifications or system modifications.

Queue Position shall mean the order of a valid Interconnection Request, relative to all other pending valid Interconnection Requests. The Queue Position is established based upon the date and time of receipt of the valid Interconnection Request by Transmission Provider.

Reasonable Efforts shall have that meaning as provided in the Tariff.

Scoping Meeting shall mean the meeting between representatives of Interconnection Customer, Transmission Owner, Affected System Operator(s) and Transmission Provider conducted for the purpose of discussing alternative interconnection options, to exchange information including any transmission data and earlier study evaluations that would be reasonably expected to impact such interconnection options, to analyze such information, and to determine the potential feasible Points of Interconnection.

Shared Network Upgrade shall mean a Network Upgrade or Common Use Upgrade that is funded by an Interconnection Customer(s) and also benefits other Interconnection Customer(s) that are later identified as beneficiaries.

Site Control shall mean documentation reasonably demonstrating: (1) ownership of, a leasehold interest in, or a right to develop a site for the purpose of constructing the Generating Facility and when applicable (i.e. when Interconnection Customer is providing the site for the TOIFs and Network Upgrades at the POI) the Interconnection Facilities, and; (2) an option to purchase or acquire a leasehold site for such purpose; or (3) an exclusivity or other business relationship between Interconnection Customer and the entity having the right to sell, lease or

grant Interconnection Customer the right to possess or occupy a site for such purpose. Such documentation must support a reasonable determination of 75% of the sufficient land area to support the size and type of Generating Facility proposed. If an Interconnection Customer cannot demonstrate Site Control for Interconnection Facilities as a result of regulatory requirements or obligations, the Interconnection Customer must demonstrate such regulatory requirements or obligations to the Transmission Provider and provide cash in-lieu of Site Control until the time that the regulatory requirements allow the Site Control requirement to be met.

Small Generating Facility shall mean a Generating Facility that has an aggregate net Generating Facility Capacity of no more than five MW and meets the requirements of Section 14 and Appendix 3 of the GIP.

Special Protection System (SPS) shall mean an automatic protection system or remedial action scheme designed to detect abnormal or predetermined system conditions, and take corrective actions other than and/or in addition to the isolation of faulted components, to maintain system reliability. Such action may include changes in demand (MW and MVar), energy (MWh and MVarh), or system configuration to maintain system stability, acceptable voltage, or power flows. An SPS does not include (a) underfrequency or undervoltage load shedding, (b) fault conditions that must be isolated, (c) out-of-step relaying not designed as an integral part of an SPS, or (d) Transmission Control Devices.

Stand Alone Network Upgrades shall mean Network Upgrades that an Interconnection Customer may construct without affecting day-to-day operations of the Transmission System during their construction. Transmission Provider, Transmission Owner and Interconnection Customer must agree as to what constitutes Stand Alone Network Upgrades and identify them in Appendix A to this GIA.

System Protection Facilities shall mean the equipment, including necessary protection signal communications equipment, required to protect (1) the Transmission System or other delivery systems or other generating systems from faults or other electrical disturbances occurring at the Generating Facility and (2) the Generating Facility from faults or other electrical system disturbances occurring on the Transmission System or on other delivery systems or other generating systems to which the Transmission System is directly connected.

Tariff shall mean the Transmission Provider's Tariff through which open access transmission service and Interconnection Service are offered, as filed with the Commission, and as amended or supplemented from time to time, or any successor tariff.

Transmission Control Devices shall mean a generally accepted transmission device that is planned and designed to provide dynamic control of electric system quantities, and are usually employed as solutions to specific system performance issues. Examples of such devices include fast valving, high response exciters, high voltage DC links, active or real power flow control and reactive compensation devices using power electronics (*e.g.*, unified power flow controllers), static var compensators, thyristor controlled series capacitors, braking resistors, and in some cases mechanically-switched capacitors and reactors. In general, such systems are not considered to be Special Protection Systems.

Transmission Owner shall mean that Transmission Owner as defined in the Tariff, which includes an entity that owns, leases or otherwise possesses an interest in the portion of the Transmission System at which Interconnection Customer proposes to interconnect or otherwise integrate the operation of the Generating Facility. Transmission Owner should be read to include any Independent Transmission Company that manages the transmission facilities of Transmission Owner and shall include, as applicable, the owner and/or operator of distribution facilities interconnected to the Transmission System, over which facilities transmission service or Wholesale Distribution Service under the Tariff is available at the time Interconnection Customer requests Interconnection Service and to which Interconnection Customer has requested interconnection of a Generating Facility for the purpose of either transmitting electric energy in interstate commerce or selling electric energy at wholesale in interstate commerce.

Transmission Provider shall mean the Midcontinent Independent System Operator, Inc. (“MISO”), the Regional Transmission Organization that controls or operates the transmission facilities of its transmission-owning members used for the transmission of electricity in interstate commerce and provides transmission service under the Tariff.

Transmission Owner’s Interconnection Facilities (TOIF) shall mean all facilities and equipment owned by Transmission Owner from the Point of Change of Ownership to the Point of Interconnection as identified in Appendix A to this GIA, including any modifications, additions or upgrades to such facilities and equipment. Transmission Owner’s Interconnection Facilities are sole use facilities and shall not include Distribution Upgrades, Generator Upgrades, Stand Alone Network Upgrades or Network Upgrades.

Transmission System shall mean the facilities owned by Transmission Owner and controlled or operated by Transmission Provider or Transmission Owner that are used to provide Transmission Service (including HVDC Service) or Wholesale Distribution Service under the Tariff.

Trial Operation shall mean the period during which Interconnection Customer is engaged in on-site test operations and commissioning of the Generating Facility prior to Commercial Operation.

Variable Energy Resource shall mean a device for the production of electricity that is characterized by an energy source that: (1) is renewable; (2) cannot be stored by the facility owner or operator; and (3) has variability that is beyond the control of the facility owner or operator.

Wholesale Distribution Service shall have that meaning as provided in the Tariff. Wherever the term “transmission delivery service” is used, Wholesale Distribution Service shall also be implied.

ARTICLE 2. EFFECTIVE DATE, TERM AND TERMINATION

- 2.1 Effective Date.** This GIA shall become effective upon execution by the Parties subject to acceptance by FERC (if applicable), or if filed unexecuted, upon the date specified by FERC. Transmission Provider shall promptly file this GIA with FERC upon execution in accordance with Article 3.1, if required.
- 2.2 Term of Agreement.** Subject to the provisions of Article 2.3, this GIA shall remain in effect for a period of 30 years from the Effective Date and shall be automatically renewed for each successive one-year period thereafter on the anniversary of the Effective Date.
- 2.3 Termination Procedures.** This GIA may be terminated as follows:
- 2.3.1 Written Notice.** This GIA may be terminated by Interconnection Customer after giving Transmission Provider and Transmission Owner ninety (90) Calendar Days advance written notice. This GIA shall be terminated by Transmission Provider if the Generating Facility or a portion of the Generating Facility fails to achieve Commercial Operation by the Commercial Operation Date established in accordance with Section 4.4.4 of Attachment X, including any extension provided thereunder, or has ceased Commercial Operation for three (3) consecutive years, beginning with the last date of Commercial Operation for the Generating Facility, after giving Interconnection Customer ninety (90) Calendar Days advance written notice. Where only a portion of the Generating Facility fails to achieve Commercial Operation by the Commercial Operation Date established in accordance with Section 4.4.4 of Attachment X, including any extension provided thereunder, Transmission Provider shall only terminate that portion of the GIA. Notwithstanding the foregoing, in the limited circumstance that the Interconnection Request is served by a contingent Network Upgrade with an in-service date that is farther out than the Commercial Operation Date permitted under Section 4.4.4 of Attachment X, Transmission Provider shall only terminate this GIA for failure to achieve Commercial Operation by that later in-service date of the contingent Network Upgrade. The Generating Facility will not be deemed to have ceased Commercial Operation for purposes of this Article 2.3.1 if Interconnection Customer can document that it has taken other significant steps to maintain or restore operational readiness of the Generating Facility for the purpose of returning the Generating Facility to Commercial Operation as soon as possible.
- 2.3.1.1 Net Zero Interconnection Service.** Where this GIA provides for Net Zero Interconnection Service and the Energy Displacement Agreement or the Monitoring and Consent Agreement required for Net Zero Interconnection Service are no longer in effect, Interconnection Customer shall immediately cease Commercial Operation of the Generating Facility and this GIA shall be deemed terminated.
- 2.3.2 Default.** Any Party may terminate this GIA in accordance with Article 17.

2.3.3 Notwithstanding Articles 2.3.1 and 2.3.2, no termination shall become effective until the Parties have complied with all Applicable Laws and Regulations applicable to such termination, including the filing with FERC of a notice of termination of this GIA, if required, which notice has been accepted for filing by FERC.

2.4 Termination Costs. If a Party elects to terminate this GIA pursuant to Article 2.3 above, each Party shall pay all costs incurred for which that Party is responsible (including any cancellation costs relating to orders or contracts for Interconnection Facilities, applicable upgrades, and related equipment) or charges assessed by the other Parties, as of the date of the other Parties' receipt of such notice of termination, under this GIA. In the event of termination by a Party, the Parties shall use commercially Reasonable Efforts to mitigate the costs, damages and charges arising as a consequence of termination. Upon termination of this GIA, unless otherwise ordered or approved by FERC:

2.4.1 With respect to any portion of the Transmission Owner's Interconnection Facilities, Network Upgrades, System Protection Facilities, Distribution Upgrades, Generator Upgrades, and if so determined and made a part of this GIA, upgrades on Affected Systems, that have not yet been constructed or installed, Transmission Owner shall to the extent possible and to the extent of Interconnection Customer's written notice under Article 2.3.1, cancel any pending orders of, or return, any materials or equipment for, or contracts for construction of, such facilities; provided that in the event Interconnection Customer elects not to authorize such cancellation, Interconnection Customer shall assume all payment obligations with respect to such materials, equipment, and contracts, and Transmission Owner shall deliver such material and equipment, and, if necessary, assign such contracts, to Interconnection Customer as soon as practicable, at Interconnection Customer's expense. To the extent that Interconnection Customer has already paid Transmission Owner for any or all such costs of materials or equipment not taken by Interconnection Customer, Transmission Owner shall promptly refund such amounts to Interconnection Customer, less any costs, including penalties incurred by Transmission Owner to cancel any pending orders of or return such materials, equipment, or contracts.

If an Interconnection Customer terminates this GIA, it shall be responsible for all costs incurred in association with that Interconnection Customer's interconnection, including any cancellation costs relating to orders or contracts for Interconnection Facilities and equipment, and other expenses including any upgrades or related equipment for which Transmission Owner has incurred expenses and has not been reimbursed by Interconnection Customer.

2.4.2 Transmission Owner may, at its option, retain any portion of such materials, equipment, or facilities that Interconnection Customer chooses not to accept delivery of, in which case Transmission Owner shall be responsible for all costs associated with procuring such materials, equipment, or facilities. If

Transmission Owner does not so elect, then Interconnection Customer shall be responsible for such costs.

- 2.4.3** With respect to any portion of the Interconnection Facilities, and any other facilities already installed or constructed pursuant to the terms of this GIA, Interconnection Customer shall be responsible for all costs associated with the removal, relocation, reconfiguration or other disposition or retirement of such materials, equipment, or facilities, and such other expenses actually incurred by Transmission Owner necessary to return the Transmission, Distribution or Generator System, as applicable, to safe and reliable operation.
- 2.5** **Disconnection.** Upon termination of this GIA, the Parties will take all appropriate steps to disconnect the Generating Facility from the Transmission or Distribution System, as applicable. All costs required to effectuate such disconnection shall be borne by the terminating Party, unless such termination resulted from the non-terminating Party's Default of this GIA or such non-terminating Party otherwise is responsible for these costs under this GIA.
- 2.6** **Survival.** This GIA shall continue in effect after termination to the extent necessary to provide for final billings and payments and for costs incurred hereunder, including billings and payments pursuant to this GIA; to permit the determination and enforcement of liability and indemnification obligations arising from acts or events that occurred while this GIA was in effect; and to permit each Party to have access to the lands of the other Party pursuant to this GIA or other applicable agreements, to disconnect, remove or salvage its own facilities and equipment.

ARTICLE 3. REGULATORY FILINGS

- 3.1** **Filing.** Transmission Provider shall file this GIA (and any amendment hereto) with the appropriate Governmental Authority, if required. A Party may request that any information so provided be subject to the confidentiality provisions of Article 22. If that Party has executed this GIA, or any amendment thereto, the Party shall reasonably cooperate with Transmission Provider with respect to such filing and to provide any information reasonably requested by Transmission Provider needed to comply with applicable regulatory requirements.

ARTICLE 4. SCOPE OF SERVICE

- 4.1** **Interconnection Product Options.** Interconnection Customer has selected the following (checked) type of Interconnection Service:

Check: _____ NZ or _____ ER and/or X NR (See Appendix A for details)

- 4.1.1** **Energy Resource Interconnection Service (ER Interconnection Service).**

4.1.1.1 The Product. ER Interconnection Service allows Interconnection Customer to connect the Generating Facility to the Transmission or Distribution System, as applicable, and be eligible to deliver the Generating Facility's output using the existing firm or non-firm capacity of the Transmission System on an "as available" basis. To the extent Interconnection Customer wants to receive ER Interconnection Service, Transmission Owner shall construct facilities consistent with the studies identified in Appendix A.

An Interconnection Customer seeking ER Interconnection Service for new or added capacity at a Generating Facility may be granted conditional ER Interconnection Service status to the extent there is such capacity available on the Transmission System to accommodate the Interconnection Customer's Generating Facility. At the request of Interconnection Customer, conditional ER Interconnection Service status may be granted subject to the system being able to accommodate the interconnection without upgrades, until such time as a higher queued project(s) with a later service date affecting the same common elements is placed into service. The conditional ER Interconnection Service shall be terminated in the event Interconnection Customer fails to fund the necessary studies and the Network Upgrades necessary to grant the Interconnection Customer's ER Interconnection Service upon the completion of higher queued projects involving the same common elements.

4.1.1.2 Transmission Delivery Service Implications. Under ER Interconnection Service, Interconnection Customer will be eligible to inject power from the Generating Facility into and deliver power across the Transmission System on an "as available" basis up to the amount of MW identified in the applicable stability and steady state studies to the extent the upgrades initially required to qualify for ER Interconnection Service have been constructed. After that date FERC makes effective MISO's Energy Market Tariff filed in Docket No. ER04-691-000, Interconnection Customer may place a bid to sell into the market up to the maximum identified Generating Facility output, subject to any conditions specified in the Interconnection Service approval, and the Generating Facility will be dispatched to the extent the Interconnection Customer's bid clears. In all other instances, no transmission or other delivery service from the Generating Facility is assured, but Interconnection Customer may obtain Point-To-Point Transmission Service, Network Integration Transmission Service or be used for secondary network transmission service, pursuant to the Tariff, up to the maximum output identified in the stability and steady state studies. In those instances, in order for Interconnection Customer to obtain the right to deliver or inject energy beyond the Point of Interconnection or to improve its ability to do so, transmission delivery service must be

obtained pursuant to the provisions of the Tariff. The Interconnection Customer's ability to inject its Generating Facility output beyond the Point of Interconnection, therefore, will depend on the existing capacity of the Transmission or Distribution System as applicable, at such time as a Transmission Service request is made that would accommodate such delivery. The provision of Firm Point-To-Point Transmission Service or Network Integration Transmission Service may require the construction of additional Network or Distribution Upgrades.

4.1.2 Network Resource Interconnection Service (NR Interconnection Service).

4.1.2.1 The Product. Transmission Provider must conduct the necessary studies and Transmission Owner shall construct the facilities identified in Appendix A of this GIA, subject to the approval of Governmental Authorities, needed to integrate the Generating Facility in the same manner as for any Generating Facility being designated as a Network Resource.

4.1.2.2 Transmission Delivery Service Implications. NR Interconnection Service allows the Generating Facility to be designated by any Network Customer under the Tariff on the Transmission System as a Network Resource, up to the Generating Facility's full output, on the same basis as existing Network Resources that are interconnected to the Transmission or Distribution System, as applicable, and to be studied as a Network Resource on the assumption that such a designation will occur. Although NR Interconnection Service does not convey a reservation of Transmission Service to any specific load, any Network Customer can utilize Network Integration Transmission Service under the Tariff to obtain delivery of energy from the Generating Facility in the same manner as it does for existing Network Resources. A Generating Facility receiving NR Interconnection Service may also be used to provide Ancillary Services after technical studies and/or periodic analyses are performed with respect to the Generating Facility's ability to provide any applicable Ancillary Services, provided that such studies and analyses have been or would be required in connection with the provision of such Ancillary Services by any existing Network Resource. However, if the Generating Facility has not been designated as a Network Resource by any Network Customer, it cannot be required to provide Ancillary Services except to the extent such requirements extend to all generating facilities that are similarly situated. The provision of Network Integration Transmission Service or Firm Point-To-Point Transmission Service may require additional studies and the construction of additional upgrades. Because such studies and upgrades would be associated with a request for delivery service under the Tariff, cost responsibility for the studies and upgrades

would be in accordance with FERC's policy for pricing transmission delivery services.

NR Interconnection Service does not necessarily provide Interconnection Customer with the capability to physically deliver the output of its Generating Facility to any particular load on the Transmission System without incurring congestion costs. In the event of transmission or distribution constraints on the Transmission or Distribution System, as applicable, the Generating Facility shall be subject to the applicable congestion management procedures in the Transmission System in the same manner as Network Resources.

There is no requirement either at the time of study or interconnection, or at any point in the future, that the Generating Facility be designated as a Network Resource by a Network Customer or that Interconnection Customer identify a specific buyer (or sink). To the extent a Network Customer does designate the Generating Facility as its Network Resource, it must do so pursuant to the Tariff.

Once an Interconnection Customer satisfies the requirements for obtaining NR Interconnection Service, any future Transmission Service request for delivery from the Generating Facility within the Transmission System of any amount of capacity and/or energy, up to the amount initially studied, will not require that any additional studies be performed or that any further upgrades associated with such Generating Facility be undertaken, regardless of whether such Generating Facility is ever designated by a Network Customer as a Network Resource and regardless of changes in ownership of the Generating Facility. To the extent Interconnection Customer enters into an arrangement for long term Transmission Service for deliveries from the Generating Facility to customers other than the studied Network Customers, or for any Point-To-Point Transmission Service, such request may require additional studies and upgrades in order for Transmission Provider to grant such request. However, the reduction or elimination of congestion or redispatch costs may require additional studies and the construction of additional upgrades.

To the extent Interconnection Customer enters into an arrangement for long term Transmission Service for deliveries from the Generating Facility outside the Transmission System, such request may require additional studies and upgrades in order for Transmission Provider to grant such request.

4.1.2.3 Conditional NR Interconnection Service. An Interconnection Customer seeking NR Interconnection Service for new or added capacity at a Generating Facility may be granted conditional NR Interconnection

Service status to the extent there is such capacity available on the Transmission System to accommodate the Interconnection Customer's Generating Facility. At the request of Interconnection Customer, conditional NR Interconnection Service status may be granted subject to the system being able to accommodate the interconnection without upgrades, until such time as higher queued project(s) with a later service date affecting the same common elements is placed into service. The conditional NR Interconnection Service status may be converted to ER Interconnection Service if either of the following occurs:

- 1) Interconnection Customer fails to fund necessary studies and Network Upgrades required to allow the Interconnection Customer's Generating Facility to receive NR Interconnection Service upon the completion of higher queued projects involving the same common elements; or
- 2) The higher queued project(s) or planned and required Network Upgrades are placed in service and the Network Upgrades required to provide NR Interconnection Service status to the Interconnection Customer's Generating Facility are not in service.

In the event Interconnection Customer fails to fund the necessary studies and Network Upgrades for NR Interconnection Service, the Interconnection Customer's conditional NR Interconnection Service status shall be converted to ER Interconnection Service status unless Interconnection Customer makes a new Interconnection Request. Such new Interconnection Request shall be evaluated in accordance with the GIP and its new queue position.

Some or all of the conditional NR Interconnection Service status may be temporarily revoked if the Network Upgrades are not in service when the higher queued project(s) are placed in service. The availability of conditional NR Interconnection Service status will be determined by Transmission Provider's studies. Upon funding and completion of the Network Upgrades required to establish the Generating Facility's NR Interconnection Service status, the Generating Facility will be granted NR Interconnection Service status.

The Parties agree that the portion of the Generating Facility classified as NR Interconnection Service is the first portion of the output of the combined output of all the units at the Generating Facility except in circumstances where Interconnection Customer otherwise elects this GIA, as amended, to allocate that portion to the output of specific unit(s) at the Generating Facility, the total of which will not exceed the output eligible for NR Interconnection Service as shown by the additional studies. To the extent Interconnection Customer desires to obtain NR Interconnection

Service for any portion of the Generating Facility in addition to that supported by such additional studies, Interconnection Customer will be required to request such additional NR Interconnection Service through a separate Interconnection Request in accordance with the GIP.

4.1.3 Net Zero Interconnection Service (NZ Interconnection Service).

4.1.3.1 The Product. Net Zero Interconnection Service is restricted ER Interconnection Service that allows an Interconnection Customer to increase the gross generating capability at the same Point of Interconnection of an existing generating facility without increasing the existing Interconnection Service limit at that Point of Interconnection.

4.1.3.2 Transmission Delivery Service Implications. Net Zero Interconnection Service does not convey any right to deliver electricity to any specific customer or Point of Delivery.

4.2 Provision of Service. Transmission Provider shall provide Interconnection Service for the Generating Facility at the Point of Interconnection.

4.3 Performance Standards. Each Party shall perform all of its obligations under this GIA in accordance with Applicable Laws and Regulations, Applicable Reliability Standards, and Good Utility Practice. To the extent a Party is required or prevented or limited in taking any action by such regulations and standards, or if the obligations of any Party may become limited by a change in Applicable Laws and Regulations, Applicable Reliability Standards, and Good Utility Practice after the execution of this GIA, that Party shall not be deemed to be in Breach of this GIA for its compliance therewith. The Party so limited shall notify the other Parties whereupon Transmission Provider shall amend this GIA in concurrence with the other Parties and submit the amendment to the Commission for approval.

4.4 No Transmission Delivery Service. The execution of this GIA does not constitute a request for, or the provision of, any transmission delivery service under the Tariff, and does not convey any right to deliver electricity to any specific customer or Point of Delivery.

4.5 Interconnection Customer Provided Services. The services provided by Interconnection Customer under this GIA are set forth in Article 9.6 and Article 13.4.1. Interconnection Customer shall be paid for such services in accordance with Article 11.7.

ARTICLE 5. INTERCONNECTION FACILITIES ENGINEERING, PROCUREMENT, AND CONSTRUCTION

5.1 Options. Unless otherwise mutually agreed to between the Parties, Interconnection Customer shall select: 1) the In-Service Date, Initial Synchronization Date, and

Commercial Operation Date based on a reasonable construction schedule that will allow sufficient time for design, construction, equipment procurement, and permit acquisition of Transmission System equipment or right-of-way; and 2) either Standard Option or Alternate Option set forth below for completion of the Transmission Owner's Interconnection Facilities, Network Upgrades, System Protection Facilities, Distribution Upgrades and Generator Upgrades, as applicable, and set forth in Appendix A, and such dates and selected option shall be set forth in Appendix B. The dates and selected option shall be subject to the acceptance of Transmission Owner taking into account the type of construction to be employed and the regulatory requirements of Governmental Authority, and does not convey any right to deliver electricity to any specific customer or Point of Delivery, including the need to obtain permits or other authorizations for construction of the Interconnection Facilities, Network Upgrades, System Protection Facilities, Distribution Upgrades, Generator Upgrades, the Generating Facility and Stand-Alone Network Upgrades.

5.1.1 Standard Option. Transmission Owner shall design, procure, and construct the Transmission Owner's Interconnection Facilities, Network Upgrades, System Protection Facilities, Distribution Upgrades, and Generator Upgrades using Reasonable Efforts to complete the Transmission Owner's Interconnection Facilities, Network Upgrades, System Protection Facilities, Distribution Upgrades and Generator Upgrades by the dates set forth in Appendix B, Milestones, subject to the receipt of all approvals required from Governmental Authorities and the receipt of all land rights necessary to commence construction of such facilities, and such other permits or authorizations as may be required. Transmission Provider or Transmission Owner shall not be required to undertake any action which is inconsistent with its standard safety practices, its material and equipment specifications, its design criteria and construction procedures, its labor agreements, Applicable Laws and Regulations and Good Utility Practice. In the event Transmission Owner reasonably expects that it will not be able to complete the Transmission Owner's Interconnection Facilities, Network Upgrades, System Protection Facilities, Distribution Upgrades and Generator Upgrades by the specified dates, Transmission Owner shall promptly provide written notice to Interconnection Customer and Transmission Provider and shall undertake Reasonable Efforts to meet the earliest dates thereafter.

5.1.2 Alternate Option. If the dates designated by Interconnection Customer are acceptable to Transmission Provider and Transmission Owner, Transmission Provider shall so notify Interconnection Customer within thirty (30) Calendar Days, and Transmission Owner shall assume responsibility for the design, procurement and construction of the Transmission Owner's Interconnection Facilities by the designated dates.

If Transmission Owner subsequently fails to complete the Transmission Owner's Interconnection Facilities by the In-Service Date, to the extent necessary to provide back feed power; or fails to complete Network Upgrades by the Initial Synchronization Date to the extent necessary to allow for Trial Operation at full

power output, unless other arrangements are made by the Parties for such Trial Operation; or fails to complete the Network Upgrades by the Commercial Operation Date, as such dates are reflected in Appendix B, Milestones; Transmission Owner shall pay Interconnection Customer liquidated damages in accordance with Article 5.3, Liquidated Damages, provided, however, the dates designated by Interconnection Customer shall be extended day for day for each Calendar Day that Transmission Provider refuses to grant clearances to install equipment.

Transmission Owner and Interconnection Customer may adopt an incentive payment schedule that is mutually agreeable to encourage Transmission Owner to meet specified accelerated dates. Such payment by Interconnection Customer is not subject to refund.

5.1.3 Option to Build. If the dates designated by Interconnection Customer are not acceptable to Transmission Owner to complete the Transmission Owner's Interconnection Facilities or Stand Alone Network Upgrades, Transmission Provider shall so notify Interconnection Customer within thirty (30) Calendar Days, and unless the Parties agree otherwise, Interconnection Customer shall have the option to assume responsibility for the design, procurement and construction of the Transmission Owner's Interconnection Facilities and Stand Alone Network Upgrades by the dates originally designated by Interconnection Customer under Article 5.1.2. The Parties must agree as to what constitutes Stand Alone Network Upgrades and identify such Stand Alone Network Upgrades in Appendix A. Except for Stand Alone Network Upgrades, Interconnection Customer shall have no right to construct Network Upgrades under this option.

5.1.4 Negotiated Option. If Interconnection Customer elects not to exercise its option under Article 5.1.3, Option to Build, Interconnection Customer shall so notify Transmission Provider and Transmission Owner within thirty (30) Calendar Days, and the Parties shall in good faith attempt to negotiate terms and conditions (including revision of the specified dates and liquidated damages, the provision of incentives or the procurement and construction of a portion of the Transmission Owner's Interconnection Facilities and Stand Alone Network Upgrades by Interconnection Customer) pursuant to which Transmission Owner is responsible for the design, procurement and construction of the Transmission Owner's Interconnection Facilities and Network Upgrades. If the Parties are unable to reach agreement on such terms and conditions, Transmission Owner shall assume responsibility for the design, procurement and construction of the Transmission Owner's Interconnection Facilities and Network Upgrades pursuant to 5.1.1, Standard Option.

Transmission Owner and Interconnection Customer may adopt an incentive payment schedule that is mutually agreeable to encourage Transmission Owner to

meet specified accelerated dates. Such payment by Interconnection Customer is not subject to refund.

5.2 General Conditions Applicable to Option to Build. If Interconnection Customer assumes responsibility for the design, procurement and construction of the Transmission Owner's Interconnection Facilities and Stand Alone Network Upgrades after receipt of all required approvals from Governmental Authorities necessary to commence construction,

(1) Interconnection Customer shall engineer, procure equipment, and construct the Transmission Owner's Interconnection Facilities and Stand Alone Network Upgrades (or portions thereof) using Good Utility Practice and using standards and specifications provided in advance by Transmission Owner, or as required by any Governmental Authority;

(2) Interconnection Customer's engineering, procurement and construction of the Transmission Owner's Interconnection Facilities and Stand Alone Network Upgrades shall comply with all requirements of law or Governmental Authority to which Transmission Owner would be subject in the engineering, procurement or construction of the Transmission Owner's Interconnection Facilities and Stand Alone Network Upgrades;

(3) Transmission Provider, at Transmission Provider's option, and Transmission Owner shall be entitled to review and approve the engineering design, equipment acceptance tests (including witnessing of acceptance tests), and the construction (including monitoring of construction) of the Transmission Owner's Interconnection Facilities and Stand Alone Network Upgrades, and shall have the right to reject any design, procurement, construction or acceptance test of any equipment that does not meet the standards and specifications of Transmission Provider, Transmission Owner and any Governmental Authority;

(4) prior to commencement of construction, Interconnection Customer shall provide to Transmission Provider and Transmission Owner a schedule for construction of the Transmission Owner's Interconnection Facilities and Stand Alone Network Upgrades, and shall promptly respond to requests for information from Transmission Provider and Transmission Owner;

(5) at any time during construction, Transmission Provider and Transmission Owner shall have unrestricted access to the construction site for the Transmission Owner's Interconnection Facilities and Stand Alone Network Upgrades and to conduct inspections of the same;

(6) at any time during construction, should any phase of the engineering, equipment procurement, or construction of the Transmission Owner's Interconnection Facilities and Stand Alone Network Upgrades not meet the standards and specifications provided by Transmission Owner, Interconnection

Customer shall be obligated to remedy deficiencies in that portion of the Transmission Owner's Interconnection Facilities and Stand Alone Network Upgrades to meet the standards and specifications provided by Transmission Provider and Transmission Owner;

(7) Interconnection Customer shall indemnify Transmission Provider and Transmission Owner for claims arising from the Interconnection Customer's construction of the Transmission Owner's Interconnection Facilities and Stand Alone Network Upgrades under the terms and procedures applicable to Article 18.1, Indemnity;

(8) Interconnection Customer shall transfer control of the Transmission Owner's Interconnection Facilities and Stand Alone Network Upgrades to Transmission Owner;

(9) Unless Parties otherwise agree, Interconnection Customer shall transfer ownership of the Transmission Owner's Interconnection Facilities and Stand Alone Network Upgrades to Transmission Owner;

(10) Transmission Provider, at Transmission Provider's option, and Transmission Owner shall approve and accept for operation and maintenance the Transmission Owner's Interconnection Facilities and Stand Alone Network Upgrades to the extent engineered, procured, and constructed in accordance with this Article 5.2 only if the Transmission Owner's Interconnection Facilities and Stand Alone Network Upgrades meet the standards and specifications of Transmission Provider, Transmission Owner and any Governmental Authority.

(11) Interconnection Customer shall deliver to Transmission Owner "as-built" drawings, information, and any other documents that are reasonably required by Transmission Owner to assure that the Interconnection Facilities and Stand-Alone Network Upgrades are built to the standards and specifications required by Transmission Owner.

5.3 Liquidated Damages. The actual damages to Interconnection Customer, in the event the Transmission Owner's Interconnection Facilities or Network Upgrades are not completed by the dates designated by Interconnection Customer and accepted by Transmission Provider and Transmission Owner pursuant to subparagraphs 5.1.2 or 5.1.4, above, may include Interconnection Customer's fixed operation and maintenance costs and lost opportunity costs. Such actual damages are uncertain and impossible to determine at this time. Because of such uncertainty, any liquidated damages paid by Transmission Owner to Interconnection Customer in the event that Transmission Owner does not complete any portion of the Transmission Owner's Interconnection Facilities or Network Upgrades by the applicable dates, shall be an amount equal to ½ of 1 percent per day of the actual cost of the Transmission Owner's Interconnection Facilities and Network Upgrades, in the aggregate, for which Transmission Owner has assumed responsibility to design, procure and construct.

However, in no event shall the total liquidated damages exceed 20 percent of the actual cost of the Transmission Owner's Interconnection Facilities and Network Upgrades for which Transmission Owner has assumed responsibility to design, procure, and construct. The foregoing payments will be made by Transmission Owner to Interconnection Customer as just compensation for the damages caused to Interconnection Customer, which actual damages are uncertain and impossible to determine at this time, and as reasonable liquidated damages, but not as a penalty or a method to secure performance of this GIA. Liquidated damages, when the Parties agree to them, are the exclusive remedy for the Transmission Owner's failure to meet its schedule.

No liquidated damages shall be paid to Interconnection Customer if: (1) Interconnection Customer is not ready to commence use of the Transmission Owner's Interconnection Facilities or Network Upgrades to take the delivery of power for the Generating Facility's Trial Operation or to export power from the Generating Facility on the specified dates, unless Interconnection Customer would have been able to commence use of the Transmission Owner's Interconnection Facilities or Network Upgrades to take the delivery of power for Generating Facility's Trial Operation or to export power from the Generating Facility, but for Transmission Owner's delay; (2) the Transmission Owner's failure to meet the specified dates is the result of the action or inaction of Transmission Provider, Interconnection Customer or any other earlier queued Interconnection Customer who has entered into an earlier GIA with Transmission Provider and/or a Transmission Owner or with an Affected System Operator, or any cause beyond Transmission Owner's reasonable control or reasonable ability to cure; (3) Interconnection Customer has assumed responsibility for the design, procurement and construction of the Transmission Owner's Interconnection Facilities and Stand Alone Network Upgrades; (4) the delay is due to the inability of Transmission Owner to obtain all required approvals from Governmental Authorities in a timely manner for the construction of any element of the Interconnection Facilities, Network Upgrades or Stand Alone Network Upgrades, or any other permit or authorization required, or any land rights or other private authorizations that may be required, and Transmission Owner has exercised Reasonable Efforts in procuring such approvals, permits, rights or authorizations; or (5) the Parties have otherwise agreed.

5.4 Power System Stabilizers. Interconnection Customer shall procure, install, maintain and operate power system stabilizers in accordance with the guidelines and procedures established by the Applicable Reliability Council. Transmission Provider and Transmission Owner reserve the right to reasonably establish minimum acceptable settings for any installed power system stabilizers, subject to the design and operating limitations of the Generating Facility. If the Generating Facility's power system stabilizers are removed from service or are not capable of automatic operation, Interconnection Customer shall immediately notify the Transmission Provider's system operator, or its designated representative. The requirements of this paragraph shall not apply to induction generators.

- 5.5 Equipment Procurement.** If responsibility for construction of the Transmission Owner's Interconnection Facilities, Network Upgrades and/or Distribution Upgrades is to be borne by Transmission Owner, then Transmission Owner shall commence design of the Transmission Owner's Interconnection Facilities, Network Upgrades and/or Distribution Upgrades, and procure necessary equipment as soon as practicable after all of the following conditions are satisfied, unless the Parties otherwise agree in writing:
- 5.5.1** Transmission Provider has completed the Interconnection Facilities Study pursuant to the Interconnection Facilities Study Agreement; and
 - 5.5.2** Where applicable, Interconnection Customer has provided security to Transmission Owner in accordance with Article 11.6 by the dates specified in Appendix B, Milestones.
- 5.6 Construction Commencement.** Transmission Owner shall commence construction of the Transmission Owner's Interconnection Facilities, Network Upgrades, Transmission Owner's System Protection Facilities, Distribution Upgrades, and Generator Upgrades for which it is responsible as soon as practicable after the following additional conditions are satisfied:
- 5.6.1** Approval of the appropriate Governmental Authority has been obtained for any facilities requiring regulatory approval; and
 - 5.6.2** Where applicable, Interconnection Customer has provided security to Transmission Owner in accordance with Article 11.6 by the dates specified in Appendix B, Milestones.
- 5.7 Work Progress.** Transmission Owner and Interconnection Customer will keep each other and Transmission Provider advised periodically as to the progress of their respective design, procurement and construction efforts. Either Transmission Owner or Interconnection Customer may, at any time, request a progress report from the other, with a copy to be provided to the other Parties. If, at any time, Interconnection Customer determines that the completion of the Transmission Owner's Interconnection Facilities, Network Upgrades, or Transmission Owner's System Protection Facilities will not be required until after the specified In-Service Date, Interconnection Customer will provide written notice to Transmission Provider and Transmission Owner of such later date upon which the completion of the Transmission Owner's Interconnection Facilities, Network Upgrades or Transmission Owner's System Protection Facilities will be required. Transmission Owner may delay the In-Service Date of its facilities accordingly.
- 5.8 Information Exchange.** As soon as reasonably practicable after the Effective Date, the Parties shall exchange information regarding the design and compatibility of the Interconnection Facilities and compatibility of the Interconnection Facilities with the Transmission System or Distribution System, as applicable, and shall work diligently and in good faith to make any necessary design changes.

5.9 Limited Operation. If any of the Transmission Owner's Interconnection Facilities, Network Upgrades, or Transmission Owner's System Protection Facilities, Distribution Upgrades or Generator Upgrades are not reasonably expected to be completed prior to the Commercial Operation Date of the Generating Facility, Transmission Provider shall, upon the request and at the expense of Interconnection Customer, perform operating studies on a timely basis to determine the extent to which the Generating Facility and the Interconnection Customer's Interconnection Facilities may operate prior to the completion of the Transmission Owner's Interconnection Facilities, Network Upgrades, Transmission Owner's System Protection Facilities, Distribution Upgrades or Generator Upgrades consistent with Applicable Laws and Regulations, Applicable Reliability Standards, Good Utility Practice, and this GIA. Transmission Provider and Transmission Owner shall permit Interconnection Customer to operate the Generating Facility and the Interconnection Customer's Interconnection Facilities in accordance with the results of such studies; provided, however, such studies reveal that such operation may occur without detriment to the Transmission System as then configured and in accordance with the safety requirements of Transmission Owner and any Governmental Authority.

The maximum permissible output of the Generating Facility will be updated on a quarterly basis if the Network Upgrades necessary for the interconnection of the Generating Facility pursuant to this GIA are not in service within six (6) months following the Commercial Operation Date of the Generating Facility as specified in Appendix B of this GIA. These quarterly studies will be performed using the same methodology set forth in Section 11.5 of the GIP. These quarterly updates will end when all Network Upgrades necessary for the interconnection of the Generating Facility pursuant to this GIA are in service.

5.10 Interconnection Customer's Interconnection Facilities. Interconnection Customer shall, at its expense, design, procure, construct, own and install the ICIF, as set forth in Appendix A.

5.10.1 Interconnection Customer's Interconnection Facility Specifications. Interconnection Customer shall submit initial design and specifications for the ICIF, including Interconnection Customer's System Protection Facilities, to Transmission Provider and Transmission Owner at least one hundred eighty (180) Calendar Days prior to the Initial Synchronization Date; and final design and specifications for review and comment at least ninety (90) Calendar Days prior to the Initial Synchronization Date. Transmission Provider at Transmission Provider's option, and Transmission Owner shall review such specifications to ensure that the ICIF are compatible with their respective technical specifications, operational control, and safety requirements and comment on such design and specifications within thirty (30) Calendar Days of Interconnection Customer's submission. All specifications provided hereunder shall be deemed confidential.

5.10.2 Transmission Provider's and Transmission Owner's Review. Transmission Provider's and Transmission Owner's review of Interconnection Customer's

final specifications shall not be construed as confirming, endorsing, or providing a warranty as to the design, fitness, safety, durability or reliability of the Generating Facility, or the ICIF. Interconnection Customer shall make such changes to the ICIF as may reasonably be required by Transmission Provider and Transmission Owner, in accordance with Good Utility Practice, to ensure that the ICIF are compatible with the technical specifications, operational control and safety requirements of Transmission Provider and Transmission Owner.

5.10.3 ICIF Construction. The ICIF shall be designed and constructed in accordance with Good Utility Practice. Within one hundred twenty (120) Calendar Days after the Commercial Operation Date, unless the Parties agree on another mutually acceptable deadline, Interconnection Customer shall deliver to Transmission Provider and Transmission Owner “as-built” drawings, information and documents for the ICIF, such as: a one-line diagram, a site plan showing the Generating Facility and the ICIF, plan and elevation drawings showing the layout of the ICIF, a relay functional diagram, relaying AC and DC schematic wiring diagrams and relay settings for all facilities associated with the Interconnection Customer’s step-up transformers, the facilities connecting the Generating Facility to the step-up transformers and the ICIF, and the impedances (determined by factory tests) for the associated step-up transformers and the Generating Facility. Interconnection Customer shall provide Transmission Provider and Transmission Owner with Interconnection Customer’s specifications for the excitation system, automatic voltage regulator, Generating Facility control and protection settings, transformer tap settings, and communications, if applicable.

5.11 Transmission Owner’s Interconnection Facilities Construction. The Transmission Owner’s Interconnection Facilities shall be designed and constructed in accordance with Good Utility Practice. Upon request, within one hundred twenty (120) Calendar Days after the Commercial Operation Date, unless the Parties agree on another mutually acceptable deadline, Transmission Owner shall deliver to Transmission Provider (if requested) and Interconnection Customer the “as-built” drawings, information and documents for the Transmission Owner’s Interconnection Facilities specified in Appendix C to this GIA.

Such drawings, information and documents shall be deemed Confidential Information.

Upon completion, the Transmission Owner’s Interconnection Facilities and Stand Alone Network Upgrades shall be under the control of Transmission Provider or its designated representative.

5.12 Access Rights. Upon reasonable notice by a Party, and subject to any required or necessary regulatory approvals, a Party (“Granting Party”) shall furnish *at no cost* to the other Party (“Access Party”) any rights of use, licenses, rights of way and easements with respect to lands owned or controlled by the Granting Party, its agents (if allowed under

the applicable agency agreement), or any Affiliate, that are necessary to enable the Access Party to obtain ingress and egress to construct, operate, maintain, repair, test (or witness testing), inspect, replace or remove facilities and equipment to: (i) interconnect the Generating Facility with the Transmission System; (ii) operate and maintain the Generating Facility, the Interconnection Facilities and the Transmission System; and (iii) disconnect or remove the Access Party's facilities and equipment upon termination of this GIA. In exercising such licenses, rights of way and easements, the Access Party shall not unreasonably disrupt or interfere with normal operation of the Granting Party's business and shall adhere to the safety rules and procedures established in advance, as may be changed from time to time, by the Granting Party and provided to the Access Party.

- 5.13 Lands of Other Property Owners.** If any part of the Transmission Owner's Interconnection Facilities, Network Upgrades, and/or Distribution Upgrades is to be installed on property owned by persons other than Interconnection Customer or Transmission Owner, Transmission Owner shall at Interconnection Customer's expense use efforts, similar in nature and extent to those that it typically undertakes on its own behalf or on behalf of its Affiliates, including use of its eminent domain authority to the extent permitted and consistent with Applicable Laws and Regulations and, to the extent consistent with such Applicable Laws and Regulations, to procure from such persons any rights of use, licenses, rights of way and easements that are necessary to construct, operate, maintain, test, inspect, replace or remove the Transmission Owner's Interconnection Facilities, Network Upgrades and/or Distribution Upgrades upon such property.
- 5.14 Permits.** Transmission Provider or Transmission Owner and Interconnection Customer shall cooperate with each other in good faith in obtaining all permits, licenses and authorizations that are necessary to accomplish the interconnection in compliance with Applicable Laws and Regulations. With respect to this paragraph, Transmission Owner shall provide permitting assistance to Interconnection Customer comparable to that provided to the Transmission Owner's own, or an Affiliate's, generation to the extent that Transmission Owner or its Affiliate owns generation.
- 5.15 Early Construction of Base Case Facilities.** (Includes facilities required for all queued projects with interconnection agreements).Interconnection Customer may request Transmission Owner to construct, and Transmission Owner shall construct, using Reasonable Efforts to accommodate Interconnection Customer's In-Service Date, all or any portion of any Network Upgrades, Transmission Owner's System Protection Facilities or Distribution Upgrades required for Interconnection Customer to be interconnected to the Transmission or Distribution System, as applicable, which are included in the Base Case of the Interconnection Facilities Study for Interconnection Customer, and which also are required to be constructed for another Interconnection Customer with a prior GIA, but where such construction is not scheduled to be completed in time to achieve Interconnection Customer's In-Service Date. Any such Network Upgrades, System Protection Facilities or Distribution Upgrades are included in the

facilities to be constructed and as set forth in Appendix A to this GIA to the extent they are reasonably known.

5.16 Suspension.

5.16.1 Interconnection Customer's Right to Suspend for Force Majeure Event; Obligations. Provided that such suspension is permissible under the authorizations, permits or approvals granted for the construction of such Interconnection Facilities, Network Upgrades or Stand Alone Network Upgrades, Interconnection Customer will not suspend unless a Force Majeure event occurs.

Interconnection Customer must provide written notice of its request for suspension to Transmission Provider and Transmission Owner, and provide a description of the Force Majeure event that is acceptable to Transmission Provider. Suspension will only apply to Interconnection Customer milestones and Interconnection Facilities described in the Appendices of this GIA. Prior to suspension, Interconnection Customer must also provide security acceptable to Transmission Owner, equivalent to the higher of \$5 million or the total cost of all Network Upgrades, Transmission Owner's System Protection Facilities, and Distribution Upgrades listed in Appendix A of this GIA. Network Upgrades and Transmission Owner's Interconnection Facilities will be constructed on the schedule described in the Appendices of this GIA unless: (1) construction is prevented by the order of a Governmental Authority; (2) the Network Upgrades are not needed by any other project; or (3) Transmission Owner or Transmission Provider determines that a Force Majeure event prevents construction. In the event of (1), (2), or (3) security shall be released upon the determination that the Network Upgrades will no longer be constructed.

If suspension occurs, the Transmission or Distribution System, as applicable, shall be left in a safe and reliable condition in accordance with Good Utility Practice and the Transmission Provider's and Transmission Owner's safety and reliability criteria. In such event, Interconnection Customer shall be responsible for all reasonable and necessary costs which Transmission Provider and Transmission Owner (i) have incurred pursuant to this GIA prior to the suspension and (ii) incur in suspending such work, including any costs incurred to perform such work as may be necessary to ensure the safety of persons and property and the integrity of the Transmission or Distribution System, as applicable, during such suspension and, if applicable, any costs incurred in connection with the cancellation or suspension of material, equipment and labor contracts which Transmission Provider and Transmission Owner cannot reasonably avoid; provided, however, that prior to canceling or suspending any such material, equipment or labor contract, Transmission Provider and Transmission Owner shall obtain Interconnection Customer's authorization to do so.

Transmission Provider and Transmission Owner shall each invoice Interconnection Customer for such costs pursuant to Article 12 and shall use

Reasonable Efforts to minimize its costs. In the event Interconnection Customer suspends work by Transmission Owner required under this GIA pursuant to this Article 5.16, and has not requested Transmission Owner to recommence the work required under this GIA on or before the expiration of three (3) years following commencement of such suspension, this GIA shall be deemed terminated. The three-year period shall begin on the date the suspension is requested, or the date of the written notice to Transmission Provider, if no effective date is specified.

5.16.2 Effect of Missed Interconnection Customer Milestones. If Interconnection Customer fails to provide notice of suspension pursuant to Article 5.16, and Interconnection Customer fails to fulfill or complete any Interconnection Customer Milestone provided in Appendix B (“Milestone”), this constitutes a Breach under this GIA. Depending upon the consequences of the Breach and effectiveness of the cure pursuant to Article 17, the Transmission Owners’ Milestones may be revised, following consultation with Interconnection Customer, consistent with Reasonable Efforts, and in consideration of all relevant circumstances. Parties shall employ Reasonable Efforts to maintain their remaining respective Milestones.

5.16.3 Effect of Suspension; Parties Obligations. In the event that Interconnection Customer suspends work pursuant to this Article 5.16, no construction duration, timelines and schedules set forth in Appendix B shall be suspended during the period of suspension unless ordered by a Governmental Authority, with such order being the Force Majeure event causing the suspension. Should Interconnection Customer request that work be recommenced, Transmission Owner shall be obligated to proceed with Reasonable Efforts and in consideration of all relevant circumstances including regional outage schedules, construction availability and material procurement in performing the work as described in Appendix A and Appendix B. Transmission Owner will provide Interconnection Customer with a revised schedule for the design, procurement, construction, installation and testing of the Transmission Owner’s Interconnection Facilities and Network Upgrades. Upon any suspension by Interconnection Customer pursuant to Article 5.16, Interconnection Customer shall be responsible for only those costs specified in this Article 5.16.

5.17 Taxes.

5.17.1 Interconnection Customer Payments Not Taxable. The Parties intend that all payments or property transfers made by Interconnection Customer to Transmission Owner for the installation of the Transmission Owner’s Interconnection Facilities, Network Upgrades, Transmission Owner’s System Protection Facilities, Distribution Upgrades and Generator Upgrades shall be non-taxable, either as contributions to capital, or as an advance, in accordance with the Internal Revenue Code and any applicable state income tax laws and shall not be taxable as contributions in aid of construction or otherwise under the Internal Revenue Code and any applicable state income tax laws. To the extent that

Transmission Owner is a limited liability company and not a corporation, and has elected to be taxed as a partnership, then the following shall apply: Transmission Owner represents, and the Parties acknowledge, that Transmission Owner is a limited liability company and is treated as a partnership for federal income tax purposes. Any payment made by Interconnection Customer to Transmission Owner for Network Upgrades is to be treated as an upfront payment in accordance with Rev Proc 2005-35. It is anticipated by the parties that any amounts paid by Interconnection Customer to Transmission Owner for Network Upgrades will be reimbursed to Interconnection Customer in accordance with the terms of this GIA, provided Interconnection Customer fulfills its obligations under this GIA.

- 5.17.2 Representations and Covenants.** In accordance with IRS Notice 2016-36, Interconnection Customer represents and covenants that (i) ownership of the electricity generated at the Generating Facility will pass to another party prior to the transmission of the electricity on the Transmission System, (ii) for income tax purposes, the amount of any payments and the cost of any property transferred to Transmission Owner for the Transmission Owner's Interconnection Facilities will be capitalized by Interconnection Customer as an intangible asset and recovered using the straight-line method over a useful life of twenty (20) years, and (iii) any portion of the Transmission Owner's Interconnection Facilities that is a "dual-use intertie," within the meaning of IRS Notice 2016-36, is reasonably expected to carry only a de minimis amount of electricity in the direction of the Generating Facility. For this purpose, "de minimis amount" means no more than 5 percent of the total power flows in both directions, calculated in accordance with the "5 percent test" set forth in IRS Notice 2016-36. This is not intended to be an exclusive list of the relevant conditions that must be met to conform to IRS requirements for non-taxable treatment.

At Transmission Owner's request, Interconnection Customer shall provide Transmission Owner with a report from an independent engineer confirming its representation in clause (iii), above, with a copy to Transmission Provider. Transmission Owner represents and covenants that the cost of the Transmission Owner's Interconnection Facilities paid for by Interconnection Customer will have no net effect on the base upon which rates are determined.

- 5.17.3 Indemnification for the Cost Consequences of Current Tax Liability** Upon Transmission Owner. Notwithstanding Article 5.17.1 and to the extent permitted by law, Interconnection Customer shall protect, indemnify and hold harmless Transmission Owner from the cost consequences of any tax liability imposed against Transmission Owner as the result of payments or property transfers made by Interconnection Customer to Transmission Owner under this GIA for Interconnection Facilities, as well as any interest and penalties, other than interest and penalties attributable to any delay caused by Transmission Owner.

Transmission Owner shall not include a gross-up for the cost consequences of any current tax liability in the amounts it charges Interconnection Customer under this GIA unless (i) Transmission Owner has determined, in good faith, that the payments or property transfers made by Interconnection Customer to Transmission Owner should be reported as income subject to taxation or (ii) any Governmental Authority directs Transmission Owner to report payments or property as income subject to taxation; provided, however, that Transmission Owner may require Interconnection Customer to provide security for Interconnection Facilities, in a form reasonably acceptable to Transmission Owner (such as a parental guarantee or a letter of credit), in an amount equal to the cost consequences or any current tax liability under this Article 5.17. Interconnection Customer shall reimburse Transmission Owner for such costs on a fully grossed-up basis, in accordance with Article 5.17.4, within thirty (30) Calendar Days of receiving written notification from Transmission Owner of the amount due, including detail about how the amount was calculated.

The indemnification obligation shall terminate at the earlier of (1) the expiration of the ten-year testing period and the applicable statute of limitation, as it may be extended by Transmission Owner upon request of the IRS, to keep these years open for audit or adjustment, or (2) the occurrence of a subsequent taxable event and the payment of any related indemnification obligations as contemplated by this Article 5.17.

5.17.4 Tax Gross-Up Amount. Interconnection Customer's liability for the cost consequences of any current tax liability under this Article 5.17 shall be calculated on a fully grossed-up basis. Except as may otherwise be agreed to by the parties, this means that Interconnection Customer will pay Transmission Owner, in addition to the amount paid for the Interconnection Facilities, Network Upgrades, Transmission Owner's System Protection Facilities, and/or Distribution Upgrades, an amount equal to (1) the current taxes imposed on Transmission Owner ("Current Taxes") on the excess of (a) the gross income realized by Transmission Owner as a result of payments or property transfers made by Interconnection Customer to Transmission Owner under this GIA (without regard to any payments under this Article 5.17) (the "Gross Income Amount") over (b) the present value of future tax deductions for depreciation that will be available as a result of such payments or property transfers (the "Present Value Depreciation Amount"), plus (2) an additional amount sufficient to permit Transmission Owner to receive and retain, after the payment of all Current Taxes, an amount equal to the net amount described in clause (1).

For this purpose, (i) Current Taxes shall be computed based on Transmission Owner's composite federal and state tax rates at the time the payments or property transfers are received and Transmission Owner will be treated as being subject to tax at the highest marginal rates in effect at that time (the "Current Tax Rate"), and (ii) the Present Value Depreciation Amount shall be computed

by discounting Transmission Owner's anticipated tax depreciation deductions as a result of such payments or property transfers by Transmission Owner's current weighted average cost of capital. Thus, the formula for calculating Interconnection Customer's liability to Transmission Owner pursuant to this Article 5.17.4 can be expressed as follows: $(\text{Current Tax Rate} \times (\text{Gross Income Amount} - \text{Present Value of Tax Depreciation})) / (1 - \text{Current Tax Rate})$. Interconnection Customer's estimated tax liability in the event taxes are imposed shall be stated in Appendix A, Interconnection Facilities, Network Upgrades and Distribution Upgrades.

- 5.17.5 Private Letter Ruling or Change or Clarification of Law.** At Interconnection Customer's request and expense, Transmission Owner shall file with the IRS a request for a private letter ruling as to whether any property transferred or sums paid, or to be paid, by Interconnection Customer to Transmission Owner under this GIA are subject to federal income taxation. Interconnection Customer will prepare the initial draft of the request for a private letter ruling, and will certify under penalties of perjury that all facts represented in such request are true and accurate to the best of Interconnection Customer's knowledge. Transmission Owner and Interconnection Customer shall cooperate in good faith with respect to the submission of such request.

Transmission Owner shall keep Interconnection Customer fully informed of the status of such request for a private letter ruling and shall execute either a privacy act waiver or a limited power of attorney, in a form acceptable to the IRS, that authorizes Interconnection Customer to participate in all discussions with the IRS regarding such request for a private letter ruling. Transmission Owner shall allow Interconnection Customer to attend all meetings with IRS officials about the request and shall permit Interconnection Customer to prepare the initial drafts of any follow-up letters in connection with the request.

- 5.17.6 Subsequent Taxable Events.** If, within 10 years from the date on which the relevant Transmission Owner's Interconnection Facilities are placed in service, (i) Interconnection Customer breaches the covenant contained in Article 5.17.2, (ii) a "disqualification event" occurs within the meaning of IRS Notice 88-129, or (iii) this GIA terminates and Transmission Owner retains ownership of the Interconnection Facilities, Network Upgrades, Transmission Owner's System Protection Facilities, and/or Distribution Upgrades, Interconnection Customer shall pay a tax gross-up for the cost consequences of any current tax liability imposed on Transmission Owner, calculated using the methodology described in Article 5.17.4 and in accordance with IRS Notice 90-60.

- 5.17.7 Contests.** In the event any Governmental Authority determines that Transmission Owner's receipt of payments or property constitutes income that is subject to taxation, Transmission Owner shall notify Interconnection Customer, in writing, within thirty (30) Calendar Days of receiving notification of such determination by a Governmental Authority. Upon the timely written

request by Interconnection Customer and at Interconnection Customer's sole expense, Transmission Owner may appeal, protest, seek abatement of, or otherwise oppose such determination. Upon Interconnection Customer's written request and sole expense, Transmission Owner shall file a claim for refund with respect to any taxes paid under this Article 5.17, whether or not it has received such a determination. Transmission Owner reserves the right to make all decisions with regard to the prosecution of such appeal, protest, abatement or other contest, including the selection of counsel and compromise or settlement of the claim, but Transmission Owner shall keep Interconnection Customer informed, shall consider in good faith suggestions from Interconnection Customer about the conduct of the contest, and shall reasonably permit Interconnection Customer or an Interconnection Customer representative to attend contest proceedings.

Interconnection Customer shall pay to Transmission Owner on a periodic basis, as invoiced by Transmission Owner, Transmission Owner's documented reasonable costs of prosecuting such appeal, protest, abatement or other contest. At any time during the contest, Transmission Owner may agree to a settlement either with Interconnection Customer's consent or after obtaining written advice from nationally-recognized tax counsel, selected by Transmission Owner, but reasonably acceptable to Interconnection Customer, that the proposed settlement represents a reasonable settlement given the hazards of litigation. Interconnection Customer's obligation shall be based on the amount of the settlement agreed to by Interconnection Customer, or if a higher amount, so much of the settlement that is supported by the written advice from nationally-recognized tax counsel selected under the terms of the preceding sentence. The settlement amount shall be calculated on a fully grossed-up basis to cover any related cost consequences of the current tax liability. Any settlement without Interconnection Customer's consent or such written advice will relieve Interconnection Customer from any obligation to indemnify Transmission Owner for the tax at issue in the contest.

5.17.8 Refund. In the event that (a) a private letter ruling is issued to Transmission Owner which holds that any amount paid or the value of any property transferred by Interconnection Customer to Transmission Owner under the terms of this GIA is not subject to federal income taxation, (b) any legislative change or administrative announcement, notice, ruling or other determination makes it reasonably clear to Transmission Owner in good faith that any amount paid or the value of any property transferred by Interconnection Customer to Transmission Owner under the terms of this GIA is not taxable to Transmission Owner, (c) any abatement, appeal, protest, or other contest results in a determination that any payments or transfers made by Interconnection Customer to Transmission Owner are not subject to federal income tax, or (d) if Transmission Owner receives a refund from any taxing authority for any overpayment of tax attributable to any payment or property transfer made by Interconnection Customer to Transmission Owner pursuant to this GIA,

Transmission Owner shall promptly refund to Interconnection Customer the following:

(i) any payment made by Interconnection Customer under this Article 5.17 for taxes that is attributable to the amount determined to be non-taxable, together with interest thereon,

(ii) interest on any amounts paid by Interconnection Customer to Transmission Owner for such taxes which Transmission Owner did not submit to the taxing authority, calculated in accordance with the methodology set forth in 18 C.F.R. Section 35.19a(a)(2)(iii) from the date payment was made by Interconnection Customer to the date Transmission Owner refunds such payment to Interconnection Customer, and

(iii) with respect to any such taxes paid by Transmission Owner, any refund or credit Transmission Owner receives or to which it may be entitled from any Governmental Authority, interest (or that portion thereof attributable to the payment described in clause (i), above) owed to Transmission Owner for such overpayment of taxes (including any reduction in interest otherwise payable by Transmission Owner to any Governmental Authority resulting from an offset or credit); provided, however, that Transmission Owner will remit such amount promptly to Interconnection Customer only after and to the extent that Transmission Owner has received a tax refund, credit or offset from any Governmental Authority for any applicable overpayment of income tax related to the Transmission Owner's Interconnection Facilities.

The intent of this provision is to leave both parties, to the extent practicable, in the event that no taxes are due with respect to any payment for Interconnection Facilities and Network Upgrades hereunder, in the same position they would have been in had no such tax payments been made.

5.17.9 Taxes Other Than Income Taxes. Upon the timely request by Interconnection Customer, and at Interconnection Customer's sole expense, Transmission Owner shall appeal, protest, seek abatement of, or otherwise contest any tax (other than federal or state income tax) asserted or assessed against Transmission Owner for which Interconnection Customer may be required to reimburse Transmission Owner under the terms of this GIA. Interconnection Customer shall pay to Transmission Owner on a periodic basis, as invoiced by Transmission Owner, Transmission Owner's documented reasonable costs of prosecuting such appeal, protest, abatement, or other contest. Interconnection Customer and Transmission Owner shall cooperate in good faith with respect to any such contest. Unless the payment of such taxes is a prerequisite to an appeal or abatement or cannot be deferred, no amount shall be payable by Interconnection Customer to Transmission Owner for such taxes until they are

assessed by a final, non-appealable order by any court or agency of competent jurisdiction. In the event that a tax payment is withheld and ultimately due and payable after appeal, Interconnection Customer will be responsible for all taxes, interest and penalties, other than penalties attributable to any delay caused by Transmission Owner.

5.18 Tax Status. Each Party shall cooperate with the other Parties to maintain each Party's tax status. Nothing in this GIA is intended to adversely affect any Party's tax-exempt status with respect to the issuance of bonds including, but not limited to, Local Furnishing Bonds.

5.19 Modification.

5.19.1 General. Either Party may undertake modifications to its facilities. If a Party plans to undertake a modification that reasonably may be expected to affect another Party's facilities, that Party shall provide to the other Parties sufficient information regarding such modification so that the other Parties may evaluate the potential impact of such modification prior to commencement of the work. Such information shall be deemed to be Confidential Information hereunder and shall include information concerning the timing of such modifications and whether such modifications are expected to interrupt the flow of electricity from the Generating Facility. The Party desiring to perform such work shall provide the relevant drawings, plans, and specifications to the other Parties at least ninety (90) Calendar Days in advance of the commencement of the work or such shorter period upon which the Parties may agree, which agreement shall not unreasonably be withheld, conditioned or delayed.

In the case of Generating Facility modifications that do not require Interconnection Customer to submit an Interconnection Request, Transmission Provider shall provide, within thirty (30) Calendar Days (or such other time as the Parties may agree), an estimate of any additional modifications to the Transmission or Distribution System as applicable, Transmission Owner's Interconnection Facilities, Network Upgrades, Transmission Owner's System Protection Facilities, and/or Distribution Upgrades necessitated by such Interconnection Customer modification and a good faith estimate of the costs thereof which shall be the responsibility of Interconnection Customer.

5.19.2 Standards. Any additions, modifications, or replacements made to a Party's facilities shall be designed, constructed and operated in accordance with this GIA and Good Utility Practice.

5.19.3 Modification Costs. Interconnection Customer shall not be directly assigned the costs of any additions, modifications, or replacements that Transmission Owner makes to the Transmission Owner's Interconnection Facilities, Network Upgrades, Transmission Owner's System Protection Facilities, Distribution Upgrades, or the Transmission or Distribution System, as applicable, to

facilitate the interconnection of a third party to the Transmission Owner's Interconnection Facilities or the Transmission or Distribution System, as applicable, or to provide transmission service to a third party under the Tariff. Interconnection Customer shall be responsible for the costs of any additions, modifications, or replacements to the Interconnection Customer's Interconnection Facilities that may be necessary to maintain or upgrade such Interconnection Customer's Interconnection Facilities consistent with Applicable Laws and Regulations, Applicable Reliability Standards or Good Utility Practice.

ARTICLE 6. TESTING AND INSPECTION

- 6.1 Pre-Commercial Operation Date Testing and Modifications.** Prior to the Commercial Operation Date, Transmission Owner shall test the Transmission Owner's Interconnection Facilities, Network Upgrades, Transmission Owner's System Protection Facilities and Distribution Upgrades, and Interconnection Customer shall test each electric production device at the Generating Facility, Interconnection Customer's System Protection Facilities and the Interconnection Customer's Interconnection Facilities to ensure their safe and reliable operation. Similar testing may be required after initial operation. Transmission Owner and Interconnection Customer shall make any modifications to their respective facilities that are found to be necessary as a result of such testing. Interconnection Customer shall bear the cost of all such testing and modifications. Interconnection Customer shall generate test energy at the Generating Facility only if it has arranged for the delivery of such test energy.
- 6.2 Post-Commercial Operation Date Testing and Modifications.** Each Party shall at its own expense perform routine inspection and testing of its facilities and equipment in accordance with Good Utility Practice as may be necessary to ensure the continued interconnection of the Generating Facility with the Transmission or Distribution System, as applicable, in a safe and reliable manner. Each Party shall have the right, upon advance written notice, to require reasonable additional testing of the Interconnection Facilities, at the requesting Party's expense, as may be in accordance with Good Utility Practice.
- 6.3 Right to Observe Testing.** Each Party shall notify the other Parties in advance of its performance of tests of its Interconnection Facilities. The other Parties shall each have the right, at its own expense, to observe such testing.
- 6.4 Right to Inspect.** Each Party shall have the right, but shall have no obligation to: (i) observe Transmission Owner's and Interconnection Customer's tests and/or inspection of any of their respective System Protection Facilities and other protective equipment, including power system stabilizers; (ii) review the settings of the System Protection Facilities and other protective equipment; and (iii) review the maintenance records relative to the Interconnection Facilities, the System Protection Facilities and other protective equipment. A Party may exercise these rights from time to time as it deems necessary upon reasonable notice to the other Parties. The exercise or non-exercise by a

Party of any such rights shall not be construed as an endorsement or confirmation of any element or condition of the Interconnection Facilities or the System Protection Facilities or other protective equipment or the operation thereof, or as a warranty as to the fitness, safety, desirability, or reliability of same. Any information that a Party obtains through the exercise of any of its rights under this Article 6.4 shall be deemed to be Confidential Information and treated pursuant to Article 22 of this GIA.

ARTICLE 7. METERING

- 7.1 General.** Each Party shall comply with the Applicable Reliability Council requirements. Unless otherwise agreed by the Parties, Transmission Owner, at its election, or otherwise Interconnection Customer, shall install Metering Equipment (the “Metering Party”) at the Point of Interconnection prior to any operation of the Generating Facility and Transmission Owner, at its election, or otherwise Interconnection Customer shall own, operate, test and maintain such Metering Equipment. Power flows to and from the Generating Facility shall be measured at or, at the Metering Party’s option, compensated to, the Point of Interconnection. The Metering Party shall provide metering quantities, in analog and/or digital form, to the other Parties upon request. Interconnection Customer shall bear all reasonable documented costs associated with the purchase, installation, operation, testing and maintenance of the Metering Equipment.
- 7.2 Check Meters.** Interconnection Customer, at its option and expense, may install and operate, on its premises and on its side of the Point of Interconnection, one or more check meters to check the Metering Equipment owned by the Metering Party. Such check meters shall be for check purposes only and shall not be used for the measurement of power flows for purposes of this GIA, except as provided in Article 7.4 below. The check meters shall be subject at all reasonable times to inspection and examination by Transmission Provider, Transmission Owner or their designees. The installation, operation and maintenance thereof shall be performed entirely by Interconnection Customer in accordance with Good Utility Practice.
- 7.3 Standards.** The Metering Party shall install, calibrate, and test revenue quality Metering Equipment in accordance with applicable ANSI standards.
- 7.4 Testing of Metering Equipment.** The Metering Party shall inspect and test Metering Equipment upon installation and at least once every two (2) years thereafter. If requested to do so by a Party, the Metering Party shall, at the requesting Party’s expense, inspect or test Metering Equipment more frequently than every two (2) years. The Metering Party shall give reasonable notice to the other Parties of the time when any inspection or test shall take place, and the other Parties may have representatives present at the test or inspection. If at any time Metering Equipment is found to be inaccurate or defective, it shall be adjusted, repaired or replaced at Interconnection Customer’s expense, in order to provide accurate metering, unless the inaccuracy or defect is due to the Metering Party’s failure to maintain, then the Metering Party shall pay. If Metering Equipment fails to register, or if the measurement made by Metering Equipment during a test varies by more than two percent (2%) from the measurement made by the standard meter used in the test,

the Metering Party shall adjust the measurements by correcting all measurements for the period during which Metering Equipment was in error by using Interconnection Customer's check meters, if installed. If no such check meters are installed or if the period cannot be reasonably ascertained, the adjustment shall be for the period immediately preceding the test of the Metering Equipment equal to one-half the time from the date of the previous test of the Metering Equipment.

- 7.5 Metering Data.** At Interconnection Customer's expense, the metered data shall be telemetered to one or more locations designated by Transmission Provider and Transmission Owner and one or more locations designated by Interconnection Customer. Such telemetered data shall be used, under normal operating conditions, as the official measurement of the amount of energy delivered from the Generating Facility to the Point of Interconnection.

ARTICLE 8. COMMUNICATIONS

- 8.1 Interconnection Customer Obligations.** Interconnection Customer shall maintain satisfactory operating communications with Transmission Provider's Transmission System dispatcher or representative designated by Transmission Provider. Interconnection Customer shall provide standard voice line, dedicated voice line and facsimile communications at its Generating Facility control room or central dispatch facility through use of either the public telephone system, or a voice communications system that does not rely on the public telephone system. Interconnection Customer shall also provide the dedicated data circuit(s) necessary to provide Interconnection Customer data to Transmission Provider as set forth in Appendix D, Security Arrangements Details. The data circuit(s) shall extend from the Generating Facility to the location(s) specified by Transmission Provider. Any required maintenance of such communications equipment shall be performed by and at the cost of Interconnection Customer. Operational communications shall be activated and maintained under, but not be limited to, the following events: system paralleling or separation, scheduled and unscheduled shutdowns, equipment clearances, and hourly and daily load data.

Unless the Generating Facility is an Intermittent Resource not relying on wind as a fuel source, Interconnection Customer shall install communication and control equipment such that the Generating Facility can receive and respond to the appropriate dispatch signals while operating under the Tariff. Where applicable, the requirements of the communication and control equipment will be enumerated in Appendix C to this GIA.

- 8.2 Remote Terminal Unit (RTU).** Prior to the Initial Synchronization Date of the Generating Facility, a remote terminal unit, or equivalent data collection and transfer equipment acceptable to both Parties, shall be installed by Interconnection Customer, or by Transmission Owner at Interconnection Customer's expense, to gather accumulated and instantaneous data to be telemetered to the location(s) designated by Transmission Owner and Transmission Provider through use of a dedicated point-to-point data circuit(s) as indicated in Article 8.1. The communication protocol for the data circuit(s) shall be specified by Transmission Owner and Transmission Provider. Instantaneous bi-

directional analog real power and reactive power flow information must be telemetered directly to the location(s) specified by Transmission Provider and Transmission Owner.

Each Party will promptly advise the other Parties if it detects or otherwise learns of any metering, telemetry or communications equipment errors or malfunctions that require the attention and/or correction. The Party owning such equipment shall correct such error or malfunction as soon as reasonably feasible.

- 8.3 No Annexation.** Any and all equipment placed on the premises of a Party shall be and remain the property of the Party providing such equipment regardless of the mode and manner of annexation or attachment to real property, unless otherwise mutually agreed by the Parties.
- 8.4 Provision of Data from a Variable Energy Resource.** The Interconnection Customer whose Generating Facility is a Variable Energy Resource shall provide meteorological and forced outage data to the Transmission Provider to the extent necessary for the Transmission Provider's development and deployment of power production forecasts for that class of Variable Energy Resources. The Interconnection Customer with a Variable Energy Resource having wind as the energy source will, upon request by the Transmission Provider, be required to provide the Transmission Provider with site-specific meteorological data including: temperature, wind speed, wind direction, and atmospheric pressure. The Interconnection Customer with a Variable Energy Resource having solar as the energy source will, upon request by the Transmission Provider, be required to provide the Transmission Provider with site-specific meteorological data including: temperature, atmospheric pressure, and irradiance. The Transmission Provider and Interconnection Customer whose Generating Facility is a Variable Energy Resource shall mutually agree to any additional meteorological data that are required for the development and deployment of a power production forecast. The Interconnection Customer whose Generating Facility is a Variable Energy Resource also shall submit data to the Transmission Provider regarding all forced outages to the extent necessary for the Transmission Provider's development and deployment of power production forecasts for that class of Variable Energy Resources. The exact specifications of the meteorological and forced outage data to be provided by the Interconnection Customer to the Transmission Provider, including the frequency and timing of data submittals, shall be made taking into account the size and configuration of the Variable Energy Resource, its characteristics, location, and its importance in maintaining generation resource adequacy and transmission system reliability in its area. All requirements for meteorological and forced outage data must be commensurate with the power production forecasting employed by the Transmission Provider. Data requirements for meteorological and forced outage data will be negotiated by the Transmission Provider and the Interconnection Customer, and will be set forth in Appendix C, Interconnection Details, of this GIA.

ARTICLE 9. OPERATIONS

- 9.1 General.** Each Party shall comply with the Applicable Reliability Council requirements. Each Party shall provide to any Party all information that may reasonably be required by that Party to comply with Applicable Laws and Regulations and Applicable Reliability Standards.
- 9.2 Local Balancing Authority Notification.** At least three (3) months before Initial Synchronization Date, Interconnection Customer shall notify Transmission Provider and Transmission Owner in writing of the Local Balancing Authority in which the Generating Facility will be located. If Interconnection Customer elects to locate the Generating Facility through dynamic metering/scheduling in a Local Balancing Authority other than the Local Balancing Authority in which the Generating Facility is physically located, and if permitted to do so by the relevant transmission tariffs, all necessary arrangements, including but not limited to those set forth in Article 7 and Article 8 of this GIA, and remote Local Balancing Authority generator interchange agreements, if applicable, and the appropriate measures under such agreements, shall be executed and implemented prior to the placement of the Generating Facility in the other Local Balancing Authority.
- 9.3 Transmission Provider and Transmission Owner Obligations.** Transmission Provider shall cause the Transmission System and the Transmission Owner's Interconnection Facilities to be operated, maintained and controlled in a safe and reliable manner in accordance with this GIA. Transmission Provider, or its designee, may provide operating instructions to Interconnection Customer consistent with this GIA and the Tariff and, if applicable, Transmission Owner's operating protocols and procedures as they may change from time to time. Transmission Provider will consider changes to its operating protocols and procedures proposed by Interconnection Customer.
- 9.4 Interconnection Customer Obligations.** Interconnection Customer shall at its own expense operate, maintain and control the Generating Facility and the Interconnection Customer's Interconnection Facilities in a safe and reliable manner and in accordance with this GIA. The Generating Facility must be operated in accordance with the operating limits, if any, in the Interconnection Facilities Study and specified in Appendix C of this GIA. Interconnection Customer shall operate the Generating Facility and the Interconnection Customer's Interconnection Facilities in accordance with all applicable requirements of Transmission Provider or its designated Local Balancing Authority Operator of which the Generating Facility is part, as such requirements are set forth in Appendix C, Interconnection Details, of this GIA. Appendix C, Interconnection Details, will be modified to reflect changes to the requirements as they may change from time to time. Any Party may request that a Party provide copies of the requirements set forth in Appendix C, Interconnection Details, of this GIA.
- 9.5 Start-Up and Synchronization.** Consistent with the Parties' mutually acceptable procedures, Interconnection Customer is responsible for the proper synchronization of the Generating Facility to the Transmission or Distribution System, as applicable.
- 9.6 Reactive Power.**

9.6.1 Power Factor Design Criteria.

9.6.1.1 Synchronous Generation. Interconnection Customer shall design the Generating Facility to be capable of maintaining a composite power delivery at continuous rated power output at the Point of Interconnection at all power factors over 0.95 leading to 0.95 lagging, unless the Transmission Provider has established different requirements that apply to all synchronous generators in the Local Balancing Authority on a comparable basis. The applicable Local Balancing Authority power factor requirements are listed on the Transmission Provider's website at

https://cdn.misoenergy.org/Reactive_Generator_Requirements108137.pdf

and may be referenced in the Appendices to this GIA. The Generating Facility shall be capable of continuous dynamic operation throughout the power factor design range as measured at the Point of Interconnection. Such operation shall account for the net effect of all energy production devices on the Interconnection Customer's side of the Point of Interconnection.

9.6.1.2 Non-Synchronous Generation. Interconnection Customer shall design the Generating Facility to be capable of maintaining a composite power delivery at continuous rated power output at the high-side of the generator substation at all power factors over 0.95 leading to 0.95 lagging, unless the Transmission Provider has established different requirements that apply to all non-synchronous generators in the Local Balancing Authority on a comparable basis. The applicable Local Balancing Authority power factor requirements are listed on the Transmission Provider's website at

https://cdn.misoenergy.org/Reactive_Generator_Requirements108137.pdf

and may be referenced in the Appendices to this GIA. This power factor range standard shall be dynamic and can be met using, for example, power electronics designed to supply this level of reactive capability (taking into account any limitations due to voltage level, real power output, etc.) or fixed and switched capacitors, or a combination of the two. This requirement shall only apply to newly interconnecting non-synchronous generators that have not yet completed a System Impact Study as of the effective date of the Final Rule establishing this requirement (Order No. 827). These requirements apply to existing non-synchronous generators making upgrades that require a new Generator Interconnection Agreement only where the Transmission Provider's System Impact Study shows the need for reactive power as a result of an upgrade. If applicable, these requirements will be memorialized in Appendix C to this GIA.

9.6.2 Voltage Schedules. Once Interconnection Customer has synchronized the Generating Facility with the Transmission System, Transmission Provider shall require Interconnection Customer to operate the Generating Facility to

produce or absorb reactive power within the design limitations of the Generating Facility set forth in Article 9.6.1 (Power Factor Design Criteria), to maintain the output voltage or power factor at the Point of Interconnection as specified by Transmission Provider. Transmission Provider's voltage schedules shall treat all sources of reactive power in the Local Balancing Authority in an equitable and not unduly discriminatory manner. Transmission Provider shall exercise Reasonable Efforts to provide Interconnection Customer with such schedules at least one (1) Calendar Day in advance, and may make changes to such schedules as necessary to maintain the reliability of the Transmission or Distribution System as applicable. Interconnection Customer shall operate the Generating Facility to maintain the specified output voltage or power factor at the Point of Interconnection within the design limitations of the Generating Facility set forth in Article 9.6.1 (Power Factor Design Criteria). If Interconnection Customer is unable to maintain the specified voltage or power factor, it shall promptly notify Transmission Provider's system operator, or its designated representative.

9.6.2.1 Governors and Regulators. Whenever the Generating Facility is operated in parallel with the Transmission or Distribution System as applicable and the speed governors (if installed on the generating unit pursuant to Good Utility Practice) and voltage regulators are capable of operation, Interconnection Customer shall operate the Generating Facility with its speed governors and voltage regulators in automatic operation. If the Generating Facility's speed governors and voltage regulators are not capable of such automatic operation, Interconnection Customer shall immediately notify Transmission Provider's system operator, or its designated representative, and ensure that such Generating Facility's reactive power production or absorption (measured in MVARs) are within the design capability of the Generating Facility's generating unit(s) and steady state stability limits. Interconnection Customer shall not cause its Generating Facility to disconnect automatically or instantaneously from the Transmission or Distribution System, as applicable, or trip any generating unit comprising the Generating Facility for an under or over frequency condition unless the abnormal frequency condition persists for a time period beyond the limits set forth in ANSI/IEEE Standard C37.106, or such other standard as applied to other generators in the Local Balancing Authority on a comparable basis.

9.6.3 Payment for Reactive Power. Payments for reactive power shall be pursuant to any tariff or rate schedule filed by Transmission Provider and approved by the FERC.

9.7 Outages and Interruptions.

9.7.1 Outages.

9.7.1.1 Outage Authority and Coordination. Interconnection Customer and Transmission Owner may each in accordance with Good Utility Practice in coordination with the other Party and Transmission Provider remove from service any of its respective Interconnection Facilities, System Protection Facilities, Network Upgrades, System Protection Facilities or Distribution Upgrades that may impact the other Party's facilities as necessary to perform maintenance or testing or to install or replace equipment. Absent an Emergency Condition, the Party scheduling a removal of such facility(ies) from service will use Reasonable Efforts to notify one another and schedule such removal on a date and time mutually acceptable to the Parties. In all circumstances, any Party planning to remove such facility(ies) from service shall use Reasonable Efforts to minimize the effect on the other Parties of such removal.

9.7.1.2 Outage Schedules. Transmission Provider shall post scheduled outages of transmission facilities on the OASIS. Interconnection Customer shall submit its planned maintenance schedules for the Generating Facility to Transmission Provider and Transmission Owner for a minimum of a rolling twenty-four (24) month period in accordance with the Transmission Provider's procedures. Interconnection Customer shall update its planned maintenance schedules as necessary. Transmission Provider may request Interconnection Customer to reschedule its maintenance as necessary to maintain the reliability of the Transmission System; provided, however, adequacy of generation supply shall not be a criterion in determining Transmission System reliability. Transmission Provider shall compensate, pursuant to applicable Transmission Provider tariff or rate schedule, Interconnection Customer for any additional direct costs that Interconnection Customer incurs as a result of having to reschedule maintenance, including any additional overtime, breaking of maintenance contracts or other costs above and beyond the cost Interconnection Customer would have incurred absent the Transmission Provider's request to reschedule maintenance. Interconnection Customer will not be eligible to receive compensation, if during the twelve (12) months prior to the date of the scheduled maintenance, Interconnection Customer had modified its schedule of maintenance activities.

Costs shall be determined by negotiation between Transmission Provider and Interconnection Customer prior to implementation of the voluntary change in outage schedules, or if such request is made by or on behalf of a Transmission Customer requesting firm service, costs and recovery of costs shall be determined through a bilateral agreement between the Transmission Customer and Interconnection Customer. Voluntary changes to outage schedules under this Article 9.7.1.2 are separate from

actions and compensation required under Article 13 and for which costs are recovered in accordance with Transmission Provider's applicable tariff or rate schedule.

9.7.1.3 Outage Restoration. If an outage on either the Interconnection Customer's or Transmission Owner's Interconnection Facilities, Network Upgrades, System Protection Facilities or Distribution Upgrades adversely affects a Party's operations or facilities, the Party that owns or controls the facility that is out of service shall use Reasonable Efforts to promptly restore such facility(ies) to a normal operating condition consistent with the nature of the outage. The Party that owns or controls the facility that is out of service shall provide the other Parties, to the extent such information is known, information on the nature of the Emergency Condition, an estimated time of restoration, and any corrective actions required. Initial verbal notice shall be followed up as soon as practicable with written notice to the other Parties explaining the nature of the outage.

9.7.2 Interruption of Service. If required by Good Utility Practice to do so, Transmission Provider may require Interconnection Customer to interrupt or reduce deliveries of electricity if such delivery of electricity could adversely affect Transmission Provider's ability to perform such activities as are necessary to safely and reliably operate and maintain the Transmission System. The following provisions shall apply to any interruption or reduction permitted under this Article 9.7.2:

- 9.7.2.1** The interruption or reduction shall continue only for so long as reasonably necessary under Good Utility Practice;
- 9.7.2.2** Any such interruption or reduction shall be made on an equitable, non-discriminatory basis with respect to all generating facilities directly connected to the Transmission or Distribution System, as applicable;
- 9.7.2.3** When the interruption or reduction must be made under circumstances which do not allow for advance notice, Transmission Provider shall notify Interconnection Customer by telephone as soon as practicable of the reasons for the curtailment, interruption, or reduction, and, if known, its expected duration. Telephone notification shall be followed by written notification as soon as practicable;
- 9.7.2.4** Except during the existence of an Emergency Condition, when the interruption or reduction can be scheduled without advance notice, Transmission Provider shall notify Interconnection Customer in advance regarding the timing of such scheduling and further notify Interconnection Customer of the expected duration. Transmission Provider shall coordinate with Interconnection Customer using Good

Utility Practice to schedule the interruption or reduction during periods of least impact to Interconnection Customer, Transmission Owner and Transmission Provider;

9.7.2.5 The Parties shall cooperate and coordinate with each other to the extent necessary in order to restore the Generating Facility, Interconnection Facilities, and the Transmission or Distribution System, as applicable to their normal operating state, consistent with system conditions and Good Utility Practice.

9.7.3 Under-Frequency, Over-Frequency, Under-Voltage, and Over-Voltage Conditions. The Transmission System is designed to automatically activate a load-shed program as required by the Applicable Reliability Council in the event of an under-frequency or under-voltage system disturbance. Interconnection Customer shall implement under-frequency, over-frequency, under-voltage, and over-voltage relay set points for the Generating Facility as required by the Applicable Reliability Council to ensure “ride through” capability of the Transmission System. Generating Facilities that are not required to implement under-frequency, over-frequency, under-voltage, and over-voltage relays as directed by the Applicable Reliability Council shall implement such relays with set points according to guidelines published by the Applicable Reliability Council. Generating Facility response to frequency and/or voltage deviations of pre-determined magnitudes, including under-frequency, over-frequency, under-voltage, and over-voltage, shall be studied and coordinated with Transmission Provider in accordance with Good Utility Practice. The term “ride through” as used herein shall mean the ability of a Generating Facility to stay connected to and synchronized with the Transmission System during system disturbances within a range of under-frequency, over-frequency, under-voltage, and over-voltage conditions, in accordance with Good Utility Practice.

9.7.4 System Protection and Other Control Requirements.

9.7.4.1 System Protection Facilities. Interconnection Customer shall, at its expense, install, operate and maintain its System Protection Facilities as a part of the Generating Facility or the Interconnection Customer’s Interconnection Facilities. Transmission Owner shall install at Interconnection Customer’s expense any Transmission Owner’s System Protection Facilities that may be required on the Transmission Owner’s Interconnection Facilities or the Transmission Owner’s transmission or distribution facilities as a result of the interconnection of the Generating Facility and the Interconnection Customer’s Interconnection Facilities.

9.7.4.2 Interconnection Customer’s and Transmission Owner’s System Protection Facilities shall be designed and coordinated with Affected Systems in accordance with Good Utility Practice.

- 9.7.4.3** Each Party shall be responsible for protection of its facilities consistent with Good Utility Practice.
- 9.7.4.4** Each Party's protective relay design shall incorporate the necessary test switches to perform the tests required in Article 6. The required test switches will be placed such that they allow operation of lockout relays while preventing breaker failure schemes from operating and causing unnecessary breaker operations and/or the tripping of the Generating Facility.
- 9.7.4.5** Each Party will test, operate and maintain their respective System Protection Facilities in accordance with Good Utility Practice.
- 9.7.4.6** Prior to the In-Service Date, and again prior to the Commercial Operation Date, Interconnection Customer or Transmission Owner, or their respective agents, shall perform a complete calibration test and functional trip test of the System Protection Facilities. At intervals suggested by Good Utility Practice and following any apparent malfunction of the System Protection Facilities, Interconnection Customer or Transmission Owner shall each perform both calibration and functional trip tests of their respective System Protection Facilities. These tests do not require the tripping of any in-service generating unit. These tests do, however, require that all protective relays and lockout contacts be activated.
- 9.7.5 Requirements for Protection.** In compliance with Good Utility Practice, Interconnection Customer shall provide, install, own, and maintain relays, circuit breakers and all other devices necessary to remove any fault contribution of the Generating Facility to any short circuit occurring on the Transmission or Distribution System, as applicable, not otherwise isolated by Transmission Owner's equipment, such that the removal of the fault contribution shall be coordinated with the protective requirements of the Transmission or Distribution System, as applicable. Such protective equipment shall include, without limitation, a disconnecting device or switch with load-interrupting capability located between the Generating Facility and the Transmission or Distribution System, as applicable, at a site selected upon mutual agreement (not to be unreasonably withheld, conditioned or delayed) of the Parties. Interconnection Customer shall be responsible for protection of the Generating Facility and Interconnection Customer's other equipment from such conditions as negative sequence currents, over- or under-frequency, sudden load rejection, over- or under-voltage, and generator loss-of-field. Interconnection Customer shall be solely responsible to disconnect the Generating Facility and Interconnection Customer's other equipment if conditions on the Transmission or Distribution System, as applicable, could adversely affect the Generating Facility.

- 9.7.6 Power Quality.** Neither Party's facilities shall cause excessive voltage flicker nor introduce excessive distortion to the sinusoidal voltage or current waves as defined by ANSI Standard C84.1-1989, in accordance with IEEE Standard 519, or any applicable superseding electric industry standard. In the event of a conflict between ANSI Standard C84.1-1989, and any applicable superseding electric industry standard, the applicable superseding electric industry standard shall control.
- 9.8 Switching and Tagging Rules.** Prior to the Initial Synchronization Date, each Party shall provide the other Parties a copy of its switching and tagging rules that are applicable to the other Parties' activities. Such switching and tagging rules shall be developed on a non-discriminatory basis. The Parties shall comply with applicable switching and tagging rules, as amended from time to time, in obtaining clearances for work or for switching operations on equipment.
- 9.9 Use of Interconnection Facilities by Other Parties.**
- 9.9.1 Purpose of Interconnection Facilities.** Except as may be required by Applicable Laws and Regulations, or as otherwise agreed to among the Parties, the Interconnection Facilities shall be constructed for the sole purpose of interconnecting the Generating Facility to the Transmission or Distribution System, as applicable, and shall be used for no other purpose.
- 9.9.2 Other Users.** If required by Applicable Laws and Regulations or if the Parties mutually agree, such agreement not to be unreasonably withheld or delayed, to allow one or more Parties to use the Transmission Owner's Interconnection Facilities, or any part thereof, Interconnection Customer will be entitled to compensation for the capital expenses it incurred in connection with the Interconnection Facilities based upon the pro rata use of the Interconnection Facilities by Transmission Owner, all non-Party users, and Interconnection Customer, in accordance with Applicable Laws and Regulations or upon some other mutually-agreed upon methodology. In addition, cost responsibility for ongoing costs, including operation and maintenance costs associated with the Interconnection Facilities, will be allocated between Interconnection Customer and any non-Party users based upon the pro rata use of the Interconnection Facilities by Transmission Owner, all non-Party users, and Interconnection Customer, in accordance with Applicable Laws and Regulations or upon some other mutually agreed upon methodology. If the issue of such compensation or allocation cannot be resolved through such negotiations, it shall be submitted to Dispute Resolution pursuant to Section 12 of the Tariff.
- 9.10 Disturbance Analysis Data Exchange.** The Parties will cooperate with one another in the analysis of disturbances to either the Generating Facility or the Transmission System by gathering and providing access to any information relating to any disturbance, including information from oscillography, protective relay targets, breaker operations and

sequence of events records, and any disturbance information required by Good Utility Practice.

ARTICLE 10. MAINTENANCE

- 10.1 Transmission Owner Obligations.** Transmission Owner shall maintain the Transmission Owner's Interconnection Facilities in a safe and reliable manner and in accordance with this GIA and all Applicable Laws and Regulations.
- 10.2 Interconnection Customer Obligations.** Interconnection Customer shall maintain the Generating Facility and the Interconnection Customer's Interconnection Facilities in a safe and reliable manner and in accordance with this GIA and all Applicable Laws and Regulations.
- 10.3 Coordination.** The Parties shall confer regularly to coordinate the planning, scheduling and performance of preventive and corrective maintenance on the Generating Facility and the Interconnection Facilities.
- 10.4 Secondary Systems.** Each Party shall cooperate with the other in the inspection, maintenance, and testing of control or power circuits that operate below 600 volts, AC or DC, including, but not limited to, any hardware, control or protective devices, cables, conductors, electric raceways, secondary equipment panels, transducers, batteries, chargers, and voltage and current transformers that directly affect the operation of a Party's facilities and equipment which may reasonably be expected to impact another Party. Each Party shall provide advance notice to the other Parties before undertaking any work on such circuits, especially on electrical circuits involving circuit breaker trip and close contacts, current transformers, or potential transformers.
- 10.5 Operating and Maintenance Expenses.** Subject to the provisions herein addressing the use of facilities by others, and except for operations and maintenance expenses associated with modifications made for providing Interconnection Service or Transmission Service to a non-Party and such non-Party pays for such expenses, Interconnection Customer shall be responsible for all reasonable expenses including overheads, associated with: (1) owning, operating, maintaining, repairing, and replacing Interconnection Customer's Interconnection Facilities; and (2) operation, maintenance, repair and replacement of Transmission Owner's Interconnection Facilities to the extent required by Transmission Owner on a comparable basis.

ARTICLE 11. PERFORMANCE OBLIGATION

- 11.1 Interconnection Customer's Interconnection Facilities.** Interconnection Customer shall design, procure, construct, install, own and/or control the Interconnection Customer's Interconnection Facilities described in Appendix A at its sole expense.

11.2 Transmission Owner's Interconnection Facilities. Transmission Owner shall design, procure, construct, install, own and/or control the Transmission Owner's Interconnection Facilities described in Appendix A at the sole expense of Interconnection Customer.

11.3 Network Upgrades, System Protection Facilities and Distribution Upgrades. Transmission Owner shall design, procure, construct, install, and own the Network Upgrades, Transmission Owner's System Protection Facilities and Distribution Upgrades described in Appendix A. Interconnection Customer shall be responsible for all costs related to Distribution Upgrades and/or Generator Upgrades. Transmission Owner shall provide Transmission Provider and Interconnection Customer with written notice pursuant to Article 15 if Transmission Owner elects to fund the capital for the Network Upgrades and Transmission Owner's System Protection Facilities; otherwise, such facilities, if any, shall be solely funded by Interconnection Customer.

11.3.1 Contingencies Affecting Network Upgrades, System Protection Facilities and Distribution Upgrades. Network Upgrades, System Protection Facilities and Distribution Upgrades that are required to accommodate the Generating Facility may be modified because (1) a higher queued interconnection request withdrew or was deemed to have withdrawn, (2) the interconnection agreement associated with a higher queued interconnection request was terminated prior to the project's In-Service Date, (3) the Commercial Operation Date for a higher queued interconnection request is delayed, or the project itself is delayed (including due to suspension) such that facilities required to accommodate lower queued projects or the project itself may be altered, (4) the queue position is reinstated for a higher-queued interconnection request whose queue position was subject to dispute resolution, (5) changes occur in Transmission Provider or Transmission Owner equipment design standards or reliability criteria giving rise to the need for restudy, (6) the facilities required to accommodate a higher queued Interconnection Request were modified constituting a Material Modification pursuant to Section 4.4 of the GIP, (7) a GIA with an effective date prior to this GIA is terminated, or (8) when ordered to restudy by FERC. The higher queued Interconnection Requests that could impact the Network Upgrades, System Protection Facilities and Distribution Upgrades required to accommodate the Generating Facility, and possible Modifications that may result from the above listed events affecting the higher queued Interconnection Requests, to the extent such modifications are reasonably known and can be determined, and estimates of the costs associated with such required Network Upgrades, System Protection Facilities and Distribution Upgrades, are provided in Appendix A.

11.3.2 Agreement to Restudy and Cost Reallocation. In the event that one of the contingencies listed in Article 11.3.1 occurs, at any time before the Network Upgrades, Common Use Upgrades, Shared Network Upgrades, System Protection Facilities and/or Distribution Upgrades associated with higher queued Interconnection Requests with GIA in effect prior to this GIA are completed, Transmission Provider may determine, in its discretion, that a restudy is required. If a restudy is required, Transmission Provider will provide notice to

Interconnection Customer and Interconnection Customer agrees to enter into an Interconnection Study Agreement for such restudy. Transmission Provider will reevaluate the need for any Common Use Upgrade(s) and/or Shared Network Upgrade(s), and if still required, reallocate the cost and responsibility for any Common Use Upgrade and/or Shared Network Upgrade, without a restudy when possible, or with a restudy if the Transmission Provider deems it necessary in order to ensure reliability of the Transmission System. The Parties agree to amend Appendix A to this GIA in accordance with Article 30.10 to reflect the results of any cost reallocation required under this Article 11.3.2.

11.3.3 Agreement to Fund Shared Network Upgrades. Interconnection Customer agrees to fund Shared Network Upgrades, as determined by Transmission Provider. Where applicable, payments to fund Shared Network Upgrade(s) that are made to Transmission Provider by Interconnection Customer will be disbursed by Transmission Provider to the appropriate entities that funded the Shared Network Upgrades in accordance with Attachment X and Attachment FF of the Tariff. In the event that Interconnection Customer fails to meet its obligation to fund Shared Network Upgrades, Transmission Owner and Transmission Provider shall not be responsible for the Interconnection Customer's funding obligation.

11.4 Transmission Credits.

11.4.1 Repayment of Amounts Advanced for Network Upgrades. Interconnection Customer shall be entitled to a cash repayment by Transmission Owner(s) and the Affected System Owner(s) that own the Network Upgrades, of the amount paid respectively to Transmission Owner and Affected System Operator, if any, for the Network Upgrades, as provided under Attachment FF of this Tariff and including any tax gross-up or other tax-related payments associated with the repayable portion of the Network Upgrades, and not repaid to Interconnection Customer pursuant to Article 5.17.8 or otherwise, to be paid to Interconnection Customer on a dollar-for-dollar basis for the non-usage sensitive portion of transmission charges, as payments are made under the Tariff and Affected System's Tariff for Transmission Services with respect to the Generating Facility. Any repayment shall include interest calculated in accordance with the methodology set forth in FERC's regulations at 18 C.F.R. § 35.19 (a)(2)(iii) from the date of any payment for Network Upgrades through the date on which Interconnection Customer receives a repayment of such payment pursuant to this subparagraph. Interest shall not accrue during periods in which Interconnection Customer has suspended construction pursuant to Article 11 or the Network Upgrades have been determined not to be needed pursuant to this Article 11.4.1. Interconnection Customer may assign such repayment rights to any person.

If the Generating Facility is designated a Network Resource under the Tariff, or if there are otherwise no incremental payments for Transmission Service resulting from the use of the Generating Facility by Transmission Customer, and

in the absence of another mutually agreeable payment schedule any repayments provided under Attachment FF shall be established equal to the applicable rate for Firm Point-To-Point Transmission Service for the pricing zone where the Network Load is located multiplied by the portion of the demonstrated output of the Generating Facility designated as a Network Resource by the Network Customer(s) or in the absence of such designation, equal to the monthly firm single system-wide rate defined under Schedule 7 of the Tariff multiplied by the portion of the demonstrated output of the Generating Facility under contract to Network Customer(s) and consistent with studies pursuant to Section 3.2.2.2 of the GIP.

Notwithstanding the foregoing, as applicable and consistent with the provisions of Attachment FF of this Tariff, Interconnection Customer, Transmission Provider, Transmission Owner, and Affected System Operator may adopt any alternative payment schedule that is mutually agreeable so long as Transmission Owner and Affected System Operator take one of the following actions no later than five (5) years from the Commercial Operation Date: (1) return to Interconnection Customer any amounts advanced for Network Upgrades not previously repaid, or (2) declare in writing that Transmission Owner or Affected System Operator will continue to provide payments to Interconnection Customer on a dollar-for-dollar basis for the non-usage sensitive portion of transmission charges, or develop an alternative schedule that is mutually agreeable and provides for the return of all amounts advanced for Network Upgrades not previously repaid; however, full reimbursement shall not extend beyond twenty (20) years from the Commercial Operation Date.

If the Generating Facility is installed in phases, the amount eligible for refund as each phase achieves Commercial Operation will be reduced by the proportional amount of generation capacity not yet installed. However, all facilities in Appendix A other than the Generating Facility shall be built without consideration for the phasing of the Generating Facility as though the entire Generating Facility will be placed in Commercial Operation for the full output or increased output of the Generating Facility constructed by Interconnection Customer under this GIA.

If the Generating Facility fails to achieve Commercial Operation, but it or another generating facility is later constructed and makes use of the Network Upgrades, Transmission Owner and Affected System Operator shall at that time reimburse Interconnection Customer for the remaining applicable amounts that may be refundable pursuant to Attachment FF of this Tariff that were advanced for the Network Upgrades on their respective systems as described above. Before any such reimbursement can occur, Interconnection Customer, or the entity that ultimately constructs the Generating Facility, if different, is responsible for identifying the entity to which the reimbursement must be made.

- 11.4.2** Special Provisions for Transmission Provider as an Affected System to be covered under Separate Agreements. When the Transmission Owner's Transmission or Distribution System (including for this Article 11.4.2 independent distribution systems connected to the Transmission System) is an Affected System for an interconnection in another electric system, Transmission Provider will coordinate the performance of Interconnection Studies with the other system. Transmission Provider will determine if any Network Upgrades or Distribution Upgrades, which may be required on the Transmission System as a result of the interconnection, would not have been needed but for the interconnection. Unless Transmission Owner provides, under the interconnection agreement between Interconnection Customer and the other system, for the repayment of amounts advanced to Transmission Provider or an impacted Transmission Owner for Network Upgrades, Interconnection Customer, Transmission Provider, and the impacted Transmission Owner(s) shall enter into an agreement that provides for such repayment by Transmission Owner(s) as directed by Transmission Provider. The agreement shall specify the terms governing payments to be made by Interconnection Customer to the Affected System Operator as well as the payment of refunds by the Affected System Operator.
- 11.4.3** Notwithstanding any other provision of this GIA, nothing herein shall be construed as relinquishing or foreclosing any rights, including but not limited to firm transmission rights, capacity rights, transmission congestion rights, or transmission credits, that Interconnection Customer, shall be entitled to, now or in the future under any other agreement or tariff as a result of, or otherwise associated with, the transmission capacity, if any, created by the Network Upgrades, including the right to obtain cash reimbursement or transmission credits for transmission service that is not associated with the Generating Facility.
- 11.5 Initial Payment.** Interconnection Customer shall elect (and provide its election to the Transmission Provider within five days of the commencement of negotiation of the GIA pursuant to Section 11.2 of the GIP) to make either 1) an initial payment equal to twenty (20) percent of the total cost of Network Upgrades, Transmission Owner Interconnection Facilities, Transmission Owner's System Protection Facilities, Distribution Upgrades and/or Generator Upgrades (if the In-Service Date is less than or equal to five (5) years of the initial payment date); or 2) an initial payment equal to ten (10) percent of the total cost of Network Upgrades, Transmission Owner Interconnection Facilities, Transmission Owner's System Protection Facilities, Distribution Upgrades and/or Generator Upgrades (if the In-Service Date exceeds the initial payment date by more than five (5) years); or 3) the total cost of Network Upgrades, Transmission Owner Interconnection Facilities, Transmission Owner's System Protection Facilities, Distribution Upgrades and/or Generator Upgrades in the form of security pursuant to Article 11.6. The initial payment shall be provided to Transmission Owner by Interconnection Customer pursuant to this Article 11.5 within the later of a) forty-five (45) Calendar Days of the execution of the GIA by all Parties, or b) forty-five (45) Calendar Days of acceptance by FERC if the GIA

is filed unexecuted and the payment is being protested by Interconnection Customer, or c) forty-five (45) Calendar Days of the filing if the GIA is filed unexecuted and the initial payment is not being protested by Interconnection Customer. If the Interconnection Customer made its milestone payments in the form of cash and the Interconnection Customer elects a cash initial payment, then the Transmission Provider shall transfer those funds to the Transmission Owner on the Interconnection Customer's behalf.

- 11.6 Provision of Security.** Unless otherwise provided in Appendix B, at least forty-five (45) Calendar Days prior to the commencement of the design, procurement, installation, or construction of a discrete portion of an element, not otherwise funded under Article 11.5, of the Transmission Owner's Interconnection Facilities, Transmission Owner's System Protection Facilities, Network Upgrades, Distribution Upgrades or Stand-Alone Network Upgrades, or at the request of Transmission Owner if regulatory approvals are required for the construction of such facilities, Interconnection Customer shall provide Transmission Owner, at Interconnection Customer's selection, a guarantee, a surety bond, letter of credit or other form of security that is reasonably acceptable to Transmission Owner and is consistent with the Uniform Commercial Code of the jurisdiction identified in Article 14.2.1. Such security for payment shall be in an amount sufficient to cover the applicable costs and cost commitments, in addition to those funded under Article 11.5, required of the Party responsible for building the facilities pursuant to the construction schedule developed in Appendix B for designing, engineering, seeking regulatory approval from any Governmental Authority, constructing, procuring and installing the applicable portion of the Transmission Owner's Interconnection Facilities, Transmission Owner's System Protection Facilities, Network Upgrades, Distribution Upgrades or Stand-Alone Network Upgrades and shall be reduced on a dollar-for-dollar basis for payments made to Transmission Owner for these purposes.

In addition:

- 11.6.1** The guarantee must be made by an entity that meets the creditworthiness requirements of Transmission Owner, and contain terms and conditions that guarantee payment of any amount that may be due from Interconnection Customer, up to an agreed-to maximum amount.
- 11.6.2** The letter of credit must be issued by a financial institution reasonably acceptable to Transmission Owner and must specify a reasonable expiration date.
- 11.6.3** The surety bond must be issued by an insurer reasonably acceptable to Transmission Owner and must specify a reasonable expiration date.
- 11.6.4** If the Shared Network Upgrade is not in service, Interconnection Customer will provide, as applicable, an Irrevocable Letter of Credit to fund any Shared Network Upgrade pursuant to Attachment FF of the Tariff. The Irrevocable Letter of Credit shall be in an amount sufficient to cover the Interconnection Customer's share of the applicable costs and cost commitments associated with

the Shared Network Upgrades. Transmission Provider may periodically adjust the Interconnection Customer's share of the applicable costs and cost commitment of Shared Network Upgrades and may require Interconnection Customer to adjust the amount of the Irrevocable Letter of Credit accordingly.

- 11.7 Interconnection Customer Compensation.** If Transmission Provider requests or directs Interconnection Customer to provide a service pursuant to Article 13.4 of this GIA, Transmission Provider shall compensate Interconnection Customer in accordance with any tariff or rate schedule filed by Transmission Provider and approved by the FERC.

ARTICLE 12. INVOICE

- 12.1 General.** Each Party shall submit to the other Party, on a monthly basis, invoices of amounts due, if any, for the preceding month. Each invoice shall state the month to which the invoice applies and fully describe the services and equipment provided. The Parties may discharge mutual debts and payment obligations due and owing to each other on the same date through netting, in which case all amounts a Party owes to the other Party under this GIA, including interest payments or credits, shall be netted so that only the net amount remaining due shall be paid by the owing Party.
- 12.2 Final Invoice.** Within six (6) months after completion of the construction of the Transmission Owner's Interconnection Facilities, Transmission Owner's System Protection Facilities, Distribution Upgrades and the Network Upgrades, Transmission Owner shall provide an invoice of the final cost of the construction of the Transmission Owner's Interconnection Facilities, Transmission Owner's System Protection Facilities, Distribution Upgrades and the Network Upgrades and shall set forth such costs in sufficient detail to enable Interconnection Customer to compare the actual costs with the estimates and to ascertain deviations, if any, from the cost estimates. Transmission Owner shall refund, with interest (calculated in accordance with 18 C.F.R. Section 35.19a(a)(2)(iii)), to Interconnection Customer any amount by which the actual payment by Interconnection Customer for estimated costs exceeds the actual costs of construction within thirty (30) Calendar Days of the issuance of such final construction invoice.
- 12.3 Payment.** Invoices shall be rendered to the paying Party at the address specified in Appendix F. The Party receiving the invoice shall pay the invoice within thirty (30) Calendar Days of receipt. All payments shall be made in immediately available funds payable to the other Party, or by wire transfer to a bank named and account designated by the invoicing Party. Payment of invoices by a Party will not constitute a waiver of any rights or claims that Party may have under this GIA.
- 12.4 Disputes.** In the event of a billing dispute among the Parties, Transmission Provider shall continue to provide Interconnection Service under this GIA as long as Interconnection Customer: (i) continues to make all payments not in dispute; and (ii) pays to Transmission Provider or Transmission Owner or into an independent escrow account the portion of the invoice in dispute, pending resolution of such dispute. If Interconnection Customer fails to meet these two requirements for continuation of

service, then Transmission Provider may or, at Transmission Owner's request upon Interconnection Customer's failure to pay, Transmission Owner, shall provide notice to Interconnection Customer of a Default pursuant to Article 17. Within thirty (30) Calendar Days after the resolution of the dispute, the Party that owes money to another Party shall pay the amount due with interest calculated in accord with the methodology set forth in 18 C.F.R. § 35.19a(a)(2)(iii).

ARTICLE 13. EMERGENCIES

13.1 Obligations. Each Party shall comply with the Emergency Condition procedures of Transmission Provider, NERC, the Applicable Reliability Council, and Applicable Laws and Regulations.

13.2 Notice. Transmission Provider or Transmission Owner shall notify the other Parties promptly when it becomes aware of an Emergency Condition that affects the Transmission Owner's Interconnection Facilities or the Transmission or Distribution System, as applicable, that may reasonably be expected to affect Interconnection Customer's operation of the Generating Facility or the Interconnection Customer's Interconnection Facilities.

Interconnection Customer shall notify Transmission Provider and Transmission Owner, which includes by definition if applicable, the operator of a Distribution System, promptly when it becomes aware of an Emergency Condition that affects the Generating Facility or the Interconnection Customer's Interconnection Facilities that may reasonably be expected to affect the Transmission or Distribution System, as applicable, or the Transmission Owner's Interconnection Facilities.

To the extent information is known, the notification shall describe the Emergency Condition, the extent of the damage or deficiency, the expected effect on the operation of Interconnection Customer's or Transmission Provider's or Transmission Owner's facilities and operations, its anticipated duration and the corrective action taken and/or to be taken. The initial notice shall be followed as soon as practicable with written notice.

13.3 Immediate Action. Unless, in a Party's reasonable judgment, immediate action is required, the Party exercising such judgment shall notify and obtain the consent of the other Parties, such consent to not be unreasonably withheld, prior to performing any manual switching operations at the Generating Facility or the Interconnection Customer's Interconnection Facilities in response to an Emergency Condition either declared by Transmission Provider or otherwise regarding the Transmission or Distribution System, as applicable.

13.4 Transmission Provider and Transmission Owner Authority.

13.4.1 General. Transmission Provider or Transmission Owner may take whatever actions or inactions with regard to the Transmission System or the Transmission Owner's Interconnection Facilities it deems necessary during an Emergency

Condition in order to (i) preserve public health and safety, (ii) preserve the reliability of the Transmission System or the Transmission Owner's Interconnection Facilities, (iii) limit or prevent damage, and (iv) expedite restoration of service.

Transmission Provider or Transmission Owner shall use Reasonable Efforts to minimize the effect of such actions or inactions on the Generating Facility or the Interconnection Customer's Interconnection Facilities. Transmission Provider or Transmission Owner may, on the basis of technical considerations, require the Generating Facility to mitigate an Emergency Condition by taking actions necessary and limited in scope to remedy the Emergency Condition, including, but not limited to, directing Interconnection Customer to shut-down, start-up, increase or decrease the real or reactive power output of the Generating Facility; implementing a reduction or disconnection pursuant to Article 13.4.2; directing Interconnection Customer to assist with blackstart (if available) or restoration efforts; or altering the outage schedules of the Generating Facility and the Interconnection Customer's Interconnection Facilities. Interconnection Customer shall comply with all of Transmission Provider's or Transmission Owner's operating instructions concerning Generating Facility real power and reactive power output within the manufacturer's design limitations of the Generating Facility's equipment that is in service and physically available for operation at the time, in compliance with Applicable Laws and Regulations.

13.4.2 Reduction and Disconnection. Transmission Provider or Transmission Owner may reduce Interconnection Service or disconnect the Generating Facility or the Interconnection Customer's Interconnection Facilities, when such reduction or disconnection is necessary under Good Utility Practice due to Emergency Conditions. These rights are separate and distinct from any right of curtailment of Transmission Provider pursuant to the Tariff. When Transmission Provider can schedule the reduction or disconnection in advance, Transmission Provider shall notify Interconnection Customer of the reasons, timing and expected duration of the reduction or disconnection. Transmission Provider shall coordinate with Interconnection Customer and Transmission Owner using Good Utility Practice to schedule the reduction or disconnection during periods of least impact to Interconnection Customer, Transmission Owner and Transmission Provider. Any reduction or disconnection shall continue only for so long as reasonably necessary pursuant to Good Utility Practice. The Parties shall cooperate with each other to restore the Generating Facility, the Interconnection Facilities, and the Transmission System to their normal operating state as soon as practicable consistent with Good Utility Practice.

13.5 Interconnection Customer Authority. Consistent with Good Utility Practice and this GIA and the GIP, Interconnection Customer may take whatever actions or inactions with regard to the Generating Facility or the Interconnection Customer's Interconnection Facilities during an Emergency Condition in order to (i) preserve public health and safety, (ii) preserve the reliability of the Generating Facility or the Interconnection

Customer's Interconnection Facilities, (iii) limit or prevent damage, and (iv) expedite restoration of service. Interconnection Customer shall use Reasonable Efforts to minimize the effect of such actions or inactions on the Transmission System and the Transmission Owner's Interconnection Facilities. Transmission Provider and Transmission Owner shall use Reasonable Efforts to assist Interconnection Customer in such actions.

- 13.6 Limited Liability.** Except as otherwise provided in Article 11.6 of this GIA, no Party shall be liable to any other for any action it takes in responding to an Emergency Condition so long as such action is made in good faith and is consistent with Good Utility Practice.
- 13.7 Audit.** In accordance with Article 25.3, any Party may audit the performance of another Party when that Party declared an Emergency Condition.

ARTICLE 14. REGULATORY REQUIREMENTS AND GOVERNING LAW

- 14.1 Regulatory Requirements.** Each Party's obligations under this GIA shall be subject to its receipt of any required approval or certificate from one or more Governmental Authorities in the form and substance satisfactory to the applying Party, or the Party making any required filings with, or providing notice to, such Governmental Authorities, and the expiration of any time period associated therewith. Each Party shall in good faith seek, and if necessary assist the other Party and use its Reasonable Efforts to obtain such other approvals. Nothing in this GIA shall require Interconnection Customer to take any action that could result in its inability to obtain, or its loss of, status or exemption under the Federal Power Act, the Public Utility Holding Company Act of 2005, as amended, or the Public Utility Regulatory Policies Act of 1978.
- 14.2 Governing Law.**
- 14.2.1** The validity, interpretation and performance of this GIA and each of its provisions shall be governed by the laws of the state where the Point of Interconnection is located, without regard to its conflicts of law principles.
- 14.2.2** This GIA is subject to all Applicable Laws and Regulations.
- 14.2.3** Each Party expressly reserves the right to seek changes in, appeal, or otherwise contest any laws, orders, rules, or regulations of a Governmental Authority.

ARTICLE 15. NOTICES

- 15.1 General.** Unless otherwise provided in this GIA, any notice, demand or request required or permitted to be given by any Party to the other Parties and any instrument required or permitted to be tendered or delivered by a Party in writing to the other Parties shall be effective when delivered and may be so given, tendered or delivered, by recognized national courier, or by depositing the same with the United States Postal Service with

postage prepaid, for delivery by certified or registered mail, addressed to the Party, or personally delivered to the Party, at the address set out in Appendix F, Addresses for Delivery of Notices and Billings.

Either Party may change the notice information in this GIA by giving five (5) Business Days written notice prior to the effective date of the change.

- 15.2 Billings and Payments.** Billings and payments shall be sent to the addresses set out in Appendix F.
- 15.3 Alternative Forms of Notice.** Any notice or request required or permitted to be given by any Party to the other and not required by this GIA to be given in writing may be so given by telephone, facsimile or email to the telephone numbers and email addresses set out in Appendix F.
- 15.4 Operations and Maintenance Notice.** Each Party shall notify the other Parties in writing of the identity of the person(s) that it designates as the point(s) of contact with respect to the implementation of Articles 9 and 10.

ARTICLE 16. FORCE MAJEURE

16.1 Force Majeure.

16.1.1 Economic hardship is not considered a Force Majeure event.

16.1.2 A Party shall not be considered to be in Default with respect to any obligation hereunder, (including obligations under Article 4 and 5), other than the obligation to pay money when due, if prevented from fulfilling such obligation by Force Majeure. A Party unable to fulfill any obligation hereunder (other than an obligation to pay money when due) by reason of Force Majeure shall give notice and the full particulars of such Force Majeure to the other Parties in writing or by telephone as soon as reasonably possible after the occurrence of the cause relied upon. Telephone, facsimile or email notices given pursuant to this Article shall be confirmed in writing as soon as reasonably possible and shall specifically state full particulars of the Force Majeure, the time and date when the Force Majeure occurred and when the Force Majeure is reasonably expected to cease. The Party affected shall exercise Reasonable Efforts to remove such disability with reasonable dispatch, but shall not be required to accede or agree to any provision not satisfactory to it in order to settle and terminate a strike or other labor disturbance.

ARTICLE 17. DEFAULT

17.1 Default

17.1.1 General. No Default shall exist where such failure to discharge an obligation (other than the payment of money) is the result of Force Majeure as defined in this GIA or the result of an act or omission of another Party. Upon a Breach, the non-Breaching Party or Parties shall give written notice of such Breach to the Breaching Party with a copy to the other Party if one Party gives notice of such Breach. Except as provided in Article 17.1.2, the Breaching Party shall have thirty (30) Calendar Days from receipt of the Breach notice within which to cure such Breach; provided however, if such Breach is not capable of cure within thirty (30) Calendar Days, the Breaching Party shall commence such cure within thirty (30) Calendar Days after notice and continuously and diligently complete such cure within ninety (90) Calendar Days from receipt of the Breach notice; and, if cured within such time, the Breach specified in such notice shall cease to exist.

17.1.2 Termination. If a Breach is not cured as provided in this Article, or if a Breach is not capable of being cured within the period provided for herein, the non-Breaching Party or Parties shall terminate this GIA, subject to Article 2.3.2 of this GIA, by written notice to the Breaching Party, with a copy to the other Party if one Party gives notice of termination, and be relieved of any further obligation hereunder and, whether or not that Party(ies) terminates this GIA, to recover from the Breaching Party all amounts due hereunder, plus all other damages and remedies to which it is (they are) entitled at law or in equity. The provisions of this Article will survive termination of this GIA.

ARTICLE 18. LIMITATION OF LIABILITY, INDEMNITY, CONSEQUENTIAL DAMAGES AND INSURANCE

18.1 **Limitation of Liability.** A Party shall not be liable to another Party or to any third party or other person for any damages arising out of actions under this GIA, including, but not limited to, any act or omission that results in an interruption, deficiency or imperfection of Interconnection Service, except as provided in this Tariff. The provisions set forth in the Tariff shall be additionally applicable to any Party acting in good faith to implement or comply with its obligations under this GIA, regardless of whether the obligation is preceded by a specific directive.

18.2 **Indemnity.** To the extent permitted by law, an Indemnifying Party shall at all times indemnify, defend and hold the other Parties harmless from Loss.

18.2.1 Indemnified Party. If an Indemnified Party is entitled to indemnification under this Article 18 as a result of a claim by a non-Party, and the Indemnifying Party fails, after notice and reasonable opportunity to proceed under Article 18.2, to assume the defense of such claim, such Indemnified Party may at the expense of the Indemnifying Party contest, settle or consent to the entry of any judgment with respect to, or pay in full, such claim.

18.2.2 Indemnifying Party. If an Indemnifying Party is obligated to indemnify and hold any Indemnified Party harmless under this Article 18, the amount owing to the Indemnified Party shall be the amount of such Indemnified Party's actual Loss, net of any insurance or other recovery.

18.2.3 Indemnity Procedures. Promptly after receipt by an Indemnified Party of any claim or notice of the commencement of any action or administrative or legal proceeding or investigation as to which the indemnity provided for in Article 18.2 may apply, the Indemnified Party shall notify the Indemnifying Party of such fact. Any failure of or delay in such notification shall not affect a Party's indemnification obligation unless such failure or delay is materially prejudicial to the Indemnifying Party.

The Indemnifying Party shall have the right to assume the defense thereof with counsel designated by such Indemnifying Party and reasonably satisfactory to the Indemnified Party. If the defendants in any such action include one or more Indemnified Parties and the Indemnifying Party and if the Indemnified Party reasonably concludes that there may be legal defenses available to it and/or other Indemnified Parties which are different from or additional to those available to the Indemnifying Party, the Indemnified Party shall have the right to select separate counsel to assert such legal defenses and to otherwise participate in the defense of such action on its own behalf. In such instances, the Indemnifying Party shall only be required to pay the fees and expenses of one additional attorney to represent an Indemnified Party or Indemnified Parties having such differing or additional legal defenses.

The Indemnified Party shall be entitled, at its expense, to participate in any such action, suit or proceeding, the defense of which has been assumed by the Indemnifying Party. Notwithstanding the foregoing, the Indemnifying Party (i) shall not be entitled to assume and control the defense of any such action, suit or proceedings if and to the extent that, in the opinion of the Indemnified Party and its counsel, such action, suit or proceeding involves the potential imposition of criminal liability on the Indemnified Party, or there exists a conflict or adversity of interest between the Indemnified Party and the Indemnifying Party, in such event the Indemnifying Party shall pay the reasonable expenses of the Indemnified Party, and (ii) shall not settle or consent to the entry of any judgment in any action, suit or proceeding without the consent of the Indemnified Party, which shall not be reasonably withheld, conditioned or delayed.

18.3 Consequential Damages. Other than the Liquidated Damages heretofore described, in no event shall either Party be liable under any provision of this GIA for any losses, damages, costs or expenses for any special, indirect, incidental, consequential, or punitive damages, including but not limited to loss of profit or revenue, loss of the use of equipment, cost of capital, cost of temporary equipment or services, whether based in whole or in part in contract, in tort, including negligence, strict liability, or any other

theory of liability; provided; however, that damages for which a Party may be liable to the other Party under another agreement will not be considered to be special, indirect, incidental, or consequential damages hereunder.

18.4 Insurance. Transmission Owner and Interconnection Customer shall, at their own expense, maintain in force throughout the period of this GIA pursuant to 18.4.9, and until released by the other Party, the following minimum insurance coverages, with insurers authorized to do business or an approved surplus lines carrier in the state where the Point of Interconnection is located:

18.4.1 Employers' Liability and Workers' Compensation Insurance providing statutory benefits in accordance with the laws and regulations of the state in which the Point of Interconnection is located.

18.4.2 Commercial General Liability Insurance including premises and operations, personal injury, broad form property damage, broad form blanket contractual liability coverage (including coverage for the contractual indemnification) products and completed operations coverage, coverage for explosion, collapse and underground hazards, independent contractors coverage, coverage for pollution to the extent normally available and punitive damages to the extent normally available and a cross liability endorsement, with minimum limits of One Million Dollars (\$1,000,000) per occurrence/One Million Dollars (\$1,000,000) aggregate combined single limit for personal injury, bodily injury, including death and property damage.

18.4.3 Comprehensive Automobile Liability Insurance, for coverage of owned and non-owned and hired vehicles, trailers or semi-trailers licensed for travel on public roads, with a minimum combined single limit of One Million Dollars (\$1,000,000) each occurrence for bodily injury, including death, and property damage.

18.4.4 Excess Public Liability Insurance over and above the Employer's Liability, Commercial General Liability and Comprehensive Automobile Liability Insurance coverage, with a minimum combined single limit of Twenty Million Dollars (\$20,000,000) per occurrence/Twenty Million Dollars (\$20,000,000) aggregate.

18.4.5 The Commercial General Liability Insurance, Comprehensive Automobile Insurance and Excess Public Liability Insurance policies shall name the other Parties, their parents, associated and Affiliate companies and their respective directors, officers, agents, servants and employees ("Other Party Group") as additional insured. All policies shall contain provisions whereby the insurers waive all rights of subrogation in accordance with the provisions of this GIA against the Other Party Groups and provide thirty (30) Calendar Days' advance written notice to the Other Party Groups prior to anniversary date of cancellation or any material change in coverage or condition.

- 18.4.6** The Commercial General Liability Insurance, Comprehensive Automobile Liability Insurance and Excess Public Liability Insurance policies shall contain provisions that specify that the policies are primary and shall apply to such extent without consideration for other policies separately carried and shall state that each insured is provided coverage as though a separate policy had been issued to each, except the insurer's liability shall not be increased beyond the amount for which the insurer would have been liable had only one insured been covered. Each Party shall be responsible for its respective deductibles or retentions.
- 18.4.7** The Commercial General Liability Insurance, Comprehensive Automobile Liability Insurance and Excess Public Liability Insurance policies, if written on a Claims First Made Basis, shall be maintained in full force and effect for two (2) years after termination of this GIA, which coverage may be in the form of tail coverage or extended reporting period coverage if agreed by Transmission Owner and Interconnection Customer.
- 18.4.8** The requirements contained herein as to the types and limits of all insurance to be maintained by Transmission Owner and Interconnection Customer are not intended to and shall not in any manner, limit or qualify the liabilities and obligations assumed by Transmission Owner and Interconnection Customer under this GIA.
- 18.4.9** As of the date set forth in Appendix B, Milestones, and as soon as practicable after the end of each fiscal year or at the renewal of the insurance policy and in any event within ninety (90) Calendar Days thereafter, Interconnection Customer and Transmission Owner shall provide the other Party with certification of all insurance required in this GIA, executed by each insurer or by an authorized representative of each insurer.
- 18.4.10** Notwithstanding the foregoing, Transmission Owner or Interconnection Customer may self-insure to meet the minimum insurance requirements of Articles 18.4.1 through 18.4.8, to the extent it maintains a self-insurance program; provided that, Transmission Owner's or Interconnection Customer's senior secured debt is rated at investment grade, or better, by Standard & Poor's and that its self-insurance program meets minimum insurance requirements under Articles 18.4.1 through 18.4.8. For any period of time that a Transmission Owner's or Interconnection Customer's senior secured debt is unrated by Standard & Poor's or is rated at less than investment grade by Standard & Poor's, such Party shall comply with the insurance requirements applicable to it under Articles 18.4.1 through 18.4.9. In the event that Transmission Owner or Interconnection Customer is permitted to self-insure pursuant to this article, it shall notify the other Party that it meets the requirements to self-insure and that its self-insurance program meets the

minimum insurance requirements in a manner consistent with that specified in Article 18.4.9.

- 18.4.11** Transmission Owner and Interconnection Customer agree to report to each other in writing as soon as practical all accidents or occurrences resulting in injuries to any person, including death, and any property damage arising out of this GIA.

ARTICLE 19. ASSIGNMENT

- 19.1 Assignment.** This GIA may be assigned by any Party only with the written consent of the other Parties; provided that a Party may assign this GIA without the consent of the other Parties to any Affiliate of the assigning Party with an equal or greater credit rating and with the legal authority and operational ability to satisfy the obligations of the assigning Party under this GIA; and provided further that Interconnection Customer shall have the right to assign this GIA, without the consent of either Transmission Provider or Transmission Owner, for collateral security purposes to aid in providing financing for the Generating Facility, provided that Interconnection Customer will promptly notify Transmission Provider of any such assignment. Any financing arrangement entered into by Interconnection Customer pursuant to this Article will provide that prior to or upon the exercise of the secured party's, trustee's or mortgagee's assignment rights pursuant to said arrangement, the secured creditor, the trustee or mortgagee will notify Transmission Provider of the date and particulars of any such exercise of assignment right(s), including providing Transmission Provider and Transmission Owner with proof that it meets the requirements of Article 11.5 and 18.4. Any attempted assignment that violates this Article is void and ineffective. Any assignment under this GIA shall not relieve a Party of its obligations, nor shall a Party's obligations be enlarged, in whole or in part, by reason thereof. Where required, consent to assignment will not be unreasonably withheld, conditioned or delayed.

ARTICLE 20. SEVERABILITY

- 20.1 Severability.** If any provision in this GIA is finally determined to be invalid, void or unenforceable by any court or other Governmental Authority having jurisdiction, such determination shall not invalidate, void or make unenforceable any other provision, agreement or covenant of this GIA; provided that if Interconnection Customer (or any non-Party, but only if such non-Party is not acting at the direction of either Transmission Provider or Transmission Owner) seeks and obtains such a final determination with respect to any provision of the Alternate Option (Article 5.1.2), or the Negotiated Option (Article 5.1.4), then none of these provisions shall thereafter have any force or effect and the Parties' rights and obligations shall be governed solely by the Standard Option (Article 5.1.1).

ARTICLE 21. COMPARABILITY

- 21.1 Comparability.** The Parties will comply with all applicable comparability and code of conduct laws, rules and regulations including such laws, rules and regulations of

Governmental Authorities establishing standards of conduct, as amended from time to time.

ARTICLE 22. CONFIDENTIALITY

- 22.1 Confidentiality.** Confidential Information shall include, without limitation, all information relating to a Party's technology, research and development, business affairs, and pricing, and any information supplied by a Party to another Party prior to the execution of this GIA.

Information is Confidential Information only if it is clearly designated or marked in writing as confidential on the face of the document, or, if the information is conveyed orally or by inspection, if the Party providing the information orally informs the Party receiving the information that the information is confidential. The Parties shall maintain as confidential any information that is provided and identified by a Party as Critical Energy Infrastructure Information (CEII), as that term is defined in 18 C.F.R. Section 388.113(c). Such confidentiality will be maintained in accordance with this Article 22.

If requested by the receiving Party, the disclosing Party shall provide in writing, the basis for asserting that the information referred to in this Article warrants confidential treatment, and the requesting Party may disclose such writing to the appropriate Governmental Authority. Each Party shall be responsible for the costs associated with affording confidential treatment to its information.

- 22.1.1 Term.** During the term of this GIA, and for a period of three (3) years after the expiration or termination of this GIA, except as otherwise provided in this Article 22 or with regard to CEII, each Party shall hold in confidence and shall not disclose to any person Confidential Information. CEII shall be treated in accordance with Commission policy and regulations.
- 22.1.2 Scope.** Confidential Information shall not include information that the receiving Party can demonstrate: (1) is generally available to the public other than as a result of a disclosure by the receiving Party; (2) was in the lawful possession of the receiving Party on a non-confidential basis before receiving it from the disclosing Party; (3) was supplied to the receiving Party without restriction by a non-Party, who, to the knowledge of the receiving Party after due inquiry, was under no obligation to the disclosing Party to keep such information confidential; (4) was independently developed by the receiving Party without reference to Confidential Information of the disclosing Party; (5) is, or becomes, publicly known, through no wrongful act or omission of the receiving Party or Breach of this GIA; or (6) is required, in accordance with Article 22.1.7 of this GIA, Order of Disclosure, to be disclosed by any Governmental Authority or is otherwise required to be disclosed by law or subpoena, or is necessary in any legal proceeding establishing rights and obligations under this GIA. Information designated as Confidential Information will no longer be deemed

confidential if the Party that designated the information as confidential notifies the receiving Party that it no longer is confidential.

- 22.1.3** Release of Confidential Information. No Party shall release or disclose Confidential Information to any other person, except to its Affiliates (limited by the Standards of Conduct requirements), subcontractors, employees, agents, consultants, or to non-parties who may be or are considering providing financing to or equity participation with Interconnection Customer, or to potential purchasers or assignees of Interconnection Customer, on a need-to-know basis in connection with this GIA, unless such person has first been advised of the confidentiality provisions of this Article 22 and has agreed to comply with such provisions. Notwithstanding the foregoing, a Party providing Confidential Information to any person shall remain primarily responsible for any release of Confidential Information in contravention of this Article 22.
- 22.1.4** Rights. Each Party retains all rights, title, and interest in the Confidential Information that it discloses to the receiving Party. The disclosure by a Party to the receiving Party of Confidential Information shall not be deemed a waiver by the disclosing Party or any other person or entity of the right to protect the Confidential Information from public disclosure.
- 22.1.5** No Warranties. By providing Confidential Information, no Party makes any warranties or representations as to its accuracy or completeness. In addition, by supplying Confidential Information, no Party obligates itself to provide any particular information or Confidential Information to another Party nor to enter into any further agreements or proceed with any other relationship or joint venture.
- 22.1.6** Standard of Care. Each Party shall use at least the same standard of care to protect Confidential Information it receives as it uses to protect its own Confidential Information from unauthorized disclosure, publication or dissemination. Each Party may use Confidential Information solely to fulfill its obligations to another Party under this GIA or its regulatory requirements.
- 22.1.7** Order of Disclosure. If a court or a Government Authority or entity with the right, power, and apparent authority to do so requests or requires any Party, by subpoena, oral deposition, interrogatories, requests for production of documents, administrative order, or otherwise, to disclose Confidential Information, that Party shall provide the disclosing Party with prompt notice of such request(s) or requirement(s) so that the disclosing Party may seek an appropriate protective order or waive compliance with the terms of this GIA. Notwithstanding the absence of a protective order or waiver, the Party may disclose such Confidential Information which, in the opinion of its counsel, the Party is legally compelled to disclose. Each Party will use Reasonable Efforts to obtain reliable assurance that confidential treatment will be accorded any Confidential Information so furnished.

- 22.1.8** Termination of Agreement. Upon termination of this GIA for any reason, each Party shall, within ten (10) Calendar Days of receipt of a written request from another Party, use Reasonable Efforts to destroy, erase, or delete (with such destruction, erasure, and deletion certified in writing to the requesting Party) or return to the requesting Party, without retaining copies thereof, any and all written or electronic Confidential Information received from the requesting Party, except that each Party may keep one copy for archival purposes, provided that the obligation to treat it as Confidential Information in accordance with this Article 22 shall survive such termination.
- 22.1.9** Remedies. The Parties agree that monetary damages would be inadequate to compensate a Party for another Party's Breach of its obligations under this Article 22. Each Party accordingly agrees that the disclosing Party shall be entitled to equitable relief, by way of injunction or otherwise, if the receiving Party Breaches or threatens to Breach its obligations under this Article 22, which equitable relief shall be granted without bond or proof of damages, and the Breaching Party shall not plead in defense that there would be an adequate remedy at law. Such remedy shall not be deemed an exclusive remedy for the Breach of this Article 22, but shall be in addition to all other remedies available at law or in equity. The Parties further acknowledge and agree that the covenants contained herein are necessary for the protection of legitimate business interests and are reasonable in scope. No Party, however, shall be liable for indirect, incidental, or consequential or punitive damages of any nature or kind resulting from or arising in connection with this Article 22.
- 22.1.10** Disclosure to FERC, its Staff or a State. Notwithstanding anything in this Article 22 to the contrary, and pursuant to 18 CFR § 1b.20, if FERC or its staff, during the course of an investigation or otherwise, requests information from a Party that is otherwise required to be maintained in confidence pursuant to this GIA, the Party shall provide the requested information to FERC or its staff, within the time provided for in the request for information. In providing the information to FERC or its staff, the Party must, consistent with 18 CFR § 388.112, request that the information be treated as confidential and non-public by FERC and its staff and that the information be withheld from public disclosure. Parties are prohibited from notifying the other Parties to this GIA prior to the release of the Confidential Information to FERC or its staff. The Party shall notify the other Parties to this GIA when it is notified by FERC or its staff that a request to release Confidential Information has been received by FERC, at which time any of the Parties may respond before such information would be made public, pursuant to 18 CFR § 388.112. Requests from a state regulatory body conducting a confidential investigation shall be treated in a similar manner if consistent with the applicable state rules and regulations.
- 22.1.11** Subject to the exception in Article 22.1.10, any information that a disclosing Party claims is competitively sensitive, commercial or financial information

under this GIA shall not be disclosed by the receiving Party to any person not employed or retained by the receiving Party, except to the extent disclosure is (i) required by law; (ii) reasonably deemed by the receiving Party to be required to be disclosed in connection with a dispute between or among the Parties, or the defense of litigation or dispute; (iii) otherwise permitted by consent of the disclosing Party, such consent not to be unreasonably withheld; or (iv) necessary to fulfill its obligations under this GIA or as the Regional Transmission Organization or a Local Balancing Authority operator including disclosing the Confidential Information to a regional or national reliability organization. The Party asserting confidentiality shall notify the receiving Party in writing of the information that Party claims is confidential. Prior to any disclosures of that Party's Confidential Information under this subparagraph, or if any non-Party or Governmental Authority makes any request or demand for any of the information described in this subparagraph, the Party who received the Confidential Information from the disclosing Party agrees to promptly notify the disclosing Party in writing and agrees to assert confidentiality and cooperate with the disclosing Party in seeking to protect the Confidential Information from public disclosure by confidentiality agreement, protective order or other reasonable measures.

ARTICLE 23. ENVIRONMENTAL RELEASES

- 23.1** Each Party shall notify the other Parties, first orally and then in writing, of the release of any Hazardous Substances, any asbestos or lead abatement activities, or any type of remediation activities related to the Generating Facility or the Interconnection Facilities, each of which may reasonably be expected to affect another Party. The notifying Party shall: (i) provide the notice as soon as practicable, provided such Party makes a good faith effort to provide the notice no later than twenty-four hours after such Party becomes aware of the occurrence; and (ii) promptly furnish to the other Parties copies of any publicly available reports filed with any Governmental Authorities addressing such events.

ARTICLE 24. INFORMATION REQUIREMENTS

- 24.1 Information Acquisition.** Transmission Provider, Transmission Owner and Interconnection Customer shall submit specific information regarding the electrical characteristics of their respective facilities to each other as described below and in accordance with Applicable Reliability Standards.
- 24.2 Information Submission by Transmission Provider and Transmission Owner** The initial information submission by Transmission Provider to Interconnection Customer, with copy provided to Transmission Owner, shall occur no later than one hundred eighty (180) Calendar Days prior to Trial Operation and shall include Transmission or Distribution System information, as applicable and available, necessary to allow Interconnection Customer to select equipment and meet any system protection and stability requirements, unless otherwise mutually agreed to by the Parties. On a monthly

basis, Transmission Owner shall provide Interconnection Customer a status report on the construction and installation of Transmission Owner's Interconnection Facilities, Transmission Owner's System Protection Facilities, Distribution Upgrades and Network Upgrades, including, but not limited to, the following information: (1) progress to date; (2) a description of the activities since the last report (3) a description of the action items for the next period; and (4) the delivery status of equipment ordered.

24.3 Updated Information Submission by Interconnection Customer. The updated information submission by Interconnection Customer to Transmission Provider, with copy to Transmission Owner, including manufacturer information, shall occur no later than one hundred eighty (180) Calendar Days prior to the Trial Operation. Interconnection Customer shall submit to Transmission Provider and Transmission Owner a completed copy of the Generating Facility data requirements contained in Appendix 1 to the GIP. It shall also include any additional information provided to Transmission Provider for the Interconnection Facilities Study. Information in this submission shall be the most current Generating Facility design or expected performance data. Information submitted for stability models shall be compatible with Transmission Provider standard models. If there is no compatible model, Interconnection Customer will work with a consultant mutually agreed to by Transmission Provider and Interconnection Customer to develop and supply a standard model and associated information.

If the Interconnection Customer's data is materially different from what was originally provided to Transmission Provider pursuant to the Interconnection Study Agreement between Transmission Provider and Interconnection Customer, then Transmission Provider will conduct appropriate studies to determine the impact on the Transmission System based on the actual data submitted pursuant to this Article 24.3. Interconnection Customer shall not begin Trial Operation until such studies are completed.

24.4 Information Supplementation. Prior to the Commercial Operation Date, the Parties shall supplement their information submissions described above in this Article 24 with any and all "as-built" Generating Facility information or "as-tested" performance information that differs from the initial submissions or, alternatively, written confirmation that no such differences exist. Interconnection Customer shall conduct tests on the Generating Facility as required by Good Utility Practice, such as an open circuit "step voltage" test on the Generating Facility to verify proper operation of the Generating Facility's automatic voltage regulator.

Unless otherwise agreed, the test conditions shall include: (1) Generating Facility at synchronous speed; (2) automatic voltage regulator on and in voltage control mode; and (3) a five percent (5 %) change in Generating Facility terminal voltage initiated by a change in the voltage regulators reference voltage. Interconnection Customer shall provide validated test recordings showing the responses in Generating Facility terminal and field voltages. In the event that direct recordings of these voltages is impractical, recordings of other voltages or currents that mirror the response of the Generating Facility's terminal or field voltage are acceptable if information necessary to translate

these alternate quantities to actual Generating Facility terminal or field voltages is provided. Generating Facility testing shall be conducted and results provided to Transmission Provider and Transmission Owner for each individual generating unit in a station.

Subsequent to the Commercial Operation Date, Interconnection Customer shall provide Transmission Provider and Transmission Owner any information changes due to equipment replacement, repair, or adjustment. Transmission Owner shall provide Interconnection Customer, with copy to Transmission Provider, any information changes due to equipment replacement, repair or adjustment in the directly connected substation or any adjacent Transmission Owner substation that may affect the Interconnection Customer's Interconnection Facilities equipment ratings, protection or operating requirements. The Parties shall provide such information no later than thirty (30) Calendar Days after the date of the equipment replacement, repair or adjustment.

ARTICLE 25. INFORMATION ACCESS AND AUDIT RIGHTS

- 25.1 Information Access.** Each Party (the "disclosing Party") shall make available to the other Parties information that is in the possession of the disclosing Party and is necessary in order for the other Parties to: (i) verify the costs incurred by the disclosing Party for which another Party is responsible under this GIA; and (ii) carry out its obligations and responsibilities under this GIA. The Parties shall not use such information for purposes other than those set forth in this Article 25.1 and to enforce their rights under this GIA.
- 25.2 Reporting of Non-Force Majeure Events.** A Party (the "notifying Party") shall notify the other Parties when the notifying Party becomes aware of its inability to comply with the provisions of this GIA for a reason other than a Force Majeure event. The Parties agree to cooperate with each other and provide necessary information regarding such inability to comply, including the date, duration, reason for the inability to comply, and corrective actions taken or planned to be taken with respect to such inability to comply. Notwithstanding the foregoing, notification, cooperation or information provided under this Article shall not entitle any Party receiving such notification to allege a cause for anticipatory breach of this GIA.
- 25.3 Audit Rights.** Subject to the requirements of confidentiality under Article 22 of this GIA, each Party shall have the right, during normal business hours, and upon prior reasonable notice to the other Parties, to audit at its own expense the other Parties' accounts and records pertaining to the Parties' performance or the Parties' satisfaction of obligations under this GIA. Such audit rights shall include audits of the other Parties' costs, calculation of invoiced amounts, the Transmission Provider's efforts to allocate responsibility for the provision of reactive support to the Transmission or Distribution System, as applicable, the Transmission Provider's efforts to allocate responsibility for interruption or reduction of generation, and each Party's actions in an Emergency Condition. Any audit authorized by this Article shall be performed at the offices where such accounts and records are maintained and shall be limited to those portions of such accounts and records that relate to each Party's performance and satisfaction of

obligations under this GIA. Each Party shall keep such accounts and records for a period equivalent to the audit rights periods described in Article 25.4.

25.4 Audit Rights Periods.

25.4.1 Audit Rights Period for Construction-Related Accounts and Records.

Accounts and records related to the design, engineering, procurement, and construction of the Transmission Owner's Interconnection Facilities, Transmission Owner's System Protection Facilities, Distribution Upgrades and Network Upgrades shall be subject to audit for a period of twenty-four months following Transmission Owner's issuance of a final invoice in accordance with Article 12.2.

25.4.2 Audit Rights Period for All Other Accounts and Records. Accounts and records related to a Party's performance or satisfaction of all obligations under this GIA other than those described in Article 25.4.1 shall be subject to audit as follows: (i) for an audit relating to cost obligations, the applicable audit rights period shall be twenty-four (24) months after the auditing Party's receipt of an invoice giving rise to such cost obligations; and (ii) for an audit relating to all other obligations, the applicable audit rights period shall be twenty-four (24) months after the event for which the audit is sought.

25.5 Audit Results. If an audit by a Party determines that an overpayment or an underpayment has occurred, a notice of such overpayment or underpayment shall be given to the Party or from whom the overpayment or underpayment is owed together with those records from the audit which support such determination.

ARTICLE 26. SUBCONTRACTORS

26.1 General. Nothing in this GIA shall prevent a Party from utilizing the services of any subcontractor as it deems appropriate to perform its obligations under this GIA; provided, however, that each Party shall require its subcontractors to comply with all applicable terms and conditions of this GIA in providing such services and each Party shall remain primarily liable to the other Parties for the performance of such subcontractor.

26.2 Responsibility of Principal. The creation of any subcontract relationship shall not relieve the hiring Party of any of its obligations under this GIA. The hiring Party shall be fully responsible to the other Parties for the acts or omissions of any subcontractor the hiring Party hires as if no subcontract had been made; provided, however, that in no event shall Transmission Provider or Transmission Owner be liable for the actions or inactions of Interconnection Customer or its subcontractors with respect to obligations of Interconnection Customer under Article 5 of this GIA. Any applicable obligation imposed by this GIA upon the hiring Party shall be equally binding upon, and shall be construed as having application to, any subcontractor of such Party.

- 26.3 No Limitation by Insurance.** The obligations under this Article 26 will not be limited in any way by any limitation of subcontractor's insurance.

ARTICLE 27. DISPUTES

- 27.1 Submission.** In the event any Party has a dispute, or asserts a claim, that arises out of or in connection with this GIA or its performance, such Party (the "disputing Party") shall provide the other Parties with written notice of the dispute or claim ("Notice of Dispute"). Such dispute or claim shall be referred to a designated senior representative of each Party for resolution on an informal basis as promptly as practicable after receipt of the Notice of Dispute by the non-disputing Parties. In the event the designated representatives are unable to resolve the claim or dispute through unassisted or assisted negotiations within thirty (30) Calendar Days of the non-disputing Parties' receipt of the Notice of Dispute, such claim or dispute shall be submitted for resolution in accordance with the dispute resolution procedures of the Tariff.

ARTICLE 28. REPRESENTATIONS, WARRANTIES AND COVENANTS

- 28.1 General.** Each Party makes the following representations, warranties and covenants:

- 28.1.1 Good Standing.** Such Party is duly organized, validly existing and in good standing under the laws of the state in which it is organized, formed, or incorporated, as applicable; that it is qualified to do business in the state or states in which the Generating Facility, Interconnection Facilities and Network Upgrades owned by such Party, as applicable, are located; and that it has the corporate power and authority to own its properties, to carry on its business as now being conducted and to enter into this GIA and carry out the transactions contemplated hereby and perform and carry out all covenants and obligations on its part to be performed under and pursuant to this GIA.
- 28.1.2 Authority.** Such Party has the right, power and authority to enter into this GIA, to become a Party hereto and to perform its obligations hereunder. This GIA is a legal, valid and binding obligation of such Party, enforceable against such Party in accordance with its terms, except as the enforceability thereof may be limited by applicable bankruptcy, insolvency, reorganization or other similar laws affecting creditors' rights generally and by general equitable principles (regardless of whether enforceability is sought in a proceeding in equity or at law).
- 28.1.3 No Conflict.** The execution, delivery and performance of this GIA does not violate or conflict with the organizational or formation documents, or bylaws or operating agreement, of such Party, or any judgment, license, permit, order, material agreement or instrument applicable to or binding upon such Party or any of its assets.

28.1.4 Consent and Approval. Such Party has sought or obtained, or, in accordance with this GIA will seek or obtain, each consent, approval, authorization, order, or acceptance by any Governmental Authority in connection with the execution, delivery and performance of this GIA, and it will provide to any Governmental Authority notice of any actions under this GIA that are required by Applicable Laws and Regulations.

ARTICLE 29. {RESERVED}

ARTICLE 30. MISCELLANEOUS

30.1 Binding Effect. This GIA and the rights and obligations hereof, shall be binding upon and shall inure to the benefit of the successors and assigns of the Parties hereto.

30.1.1 Reversion. If offered pursuant to an Agency Agreement under which this GIA is executed by Transmission Provider as agent for the relevant Transmission Owner, in the event that the relevant Agency Agreement terminates, any HVDC Service offered by Transmission Provider under this GIA shall revert to the relevant Transmission Owner and Transmission Provider shall be released from all obligations and responsibilities under this GIA.

30.2 Conflicts. In the event of a conflict between the body of this GIA and any attachment, appendices or exhibits hereto, the terms and provisions of the body of this GIA shall prevail and be deemed the final intent of the Parties.

30.3 Rules of Interpretation. This GIA, unless a clear contrary intention appears, shall be construed and interpreted as follows: (1) the singular number includes the plural number and vice versa; (2) reference to any person includes such person's successors and assigns but, in the case of a Party, only if such successors and assigns are permitted by this GIA, and reference to a person in a particular capacity excludes such person in any other capacity or individually; (3) reference to any agreement (including this GIA), document, instrument or tariff means such agreement, document, instrument, or tariff as amended or modified and in effect from time to time in accordance with the terms thereof and, if applicable, the terms hereof; (4) reference to any Applicable Laws and Regulations means such Applicable Laws and Regulations as amended, modified, codified, or reenacted, in whole or in part, and in effect from time to time, including, if applicable, rules and regulations promulgated thereunder; (5) unless expressly stated otherwise, reference to any Article, Section or Appendix means such Article of this GIA or such Appendix to this GIA, or such Section to the GIP or such Appendix to the GIP, as the case may be; (6) "hereunder", "hereof", "herein", "hereto" and words of similar import shall be deemed references to this GIA as a whole and not to any particular Article or other provision hereof or thereof; (7) "including" (and with correlative meaning "include") means including without limiting the generality of any description preceding such term; and (8) relative to the determination of any period of time, "from" means "from and including", "to" means "to but excluding" and "through" means "through and including."

30.4 Entire Agreement. This GIA, including all Appendices and attachments hereto, constitutes the entire agreement between the Parties with reference to the subject matter hereof, and supersedes all prior and contemporaneous understandings or agreements, oral or written, between the Parties with respect to the subject matter of this GIA. There are no other agreements, representations, warranties, or covenants, which constitute any part of the consideration for, or any condition to, any Party's compliance with its obligations under this GIA.

30.5 No Third Party Beneficiaries. This GIA is not intended to and does not create rights, remedies, or benefits of any character whatsoever in favor of any persons, corporations, associations, or entities other than the Parties, and the obligations herein assumed are solely for the use and benefit of the Parties, their successors in interest and, where permitted, their assigns.

30.6 Waiver. The failure of a Party to this GIA to insist, on any occasion, upon strict performance of any provision of this GIA will not be considered a waiver of any obligation, right, or duty of, or imposed upon, such Party.

Any waiver at any time by any Party of its rights with respect to this GIA shall not be deemed a continuing waiver or a waiver with respect to any other failure to comply with any other obligation, right, duty of this GIA. Termination or Default of this GIA for any reason by Interconnection Customer shall not constitute a waiver of the Interconnection Customer's legal rights to obtain Interconnection Service from Transmission Provider. Any waiver of this GIA shall, if requested, be provided in writing.

30.7 Headings. The descriptive headings of the various Articles of this GIA have been inserted for convenience of reference only and are of no significance in the interpretation or construction of this GIA.

30.8 Multiple Counterparts. This GIA may be executed in two or more counterparts, each of which is deemed an original but all constitute one and the same instrument.

30.9 Amendment. The Parties may by mutual agreement amend this GIA by a written instrument duly executed by all of the Parties.

30.10 Modification by the Parties. The Parties may by mutual agreement amend the Appendices to this GIA by a written instrument duly executed by all of the Parties. Such amendment shall become effective and a part of this GIA upon satisfaction of all Applicable Laws and Regulations.

30.11 Reservation of Rights. Transmission Provider shall have the right to make a unilateral filing with FERC to modify this GIA with respect to any rates, terms and conditions, charges, classifications of service, rule or regulation under Section 205 or any other applicable provision of the Federal Power Act and FERC's rules and regulations thereunder, and Transmission Owner and Interconnection Customer shall have the right

to make a unilateral filing with FERC to modify this GIA pursuant to Section 206 or any other applicable provision of the Federal Power Act and FERC's rules and regulations thereunder; provided that each Party shall have the right to protest any such filing and to participate fully in any proceeding before FERC in which such modifications may be considered. Nothing in this GIA shall limit the rights of the Parties or of FERC under Sections 205 or 206 of the Federal Power Act and FERC's rules and regulations thereunder, except to the extent that the Parties otherwise mutually agree as provided herein.

30.12 No Partnership. This GIA shall not be interpreted or construed to create an association, joint venture, agency relationship, or partnership among or between the Parties or to impose any partnership obligation or partnership liability upon any Party. No Party shall have any right, power or authority to enter into any agreement or undertaking for, or act on behalf of, or to act as or be an agent or representative of, or to otherwise bind, the other Parties.

IN WITNESS WHEREOF, the Parties have executed this GIA in multiple originals;
each of which shall constitute and be an original GIA among the Parties.

Transmission Provider
Midcontinent Independent System Operator, Inc.

By: Jennifer Curran AAR 8/15/2018

Name: _____
JENNIFER CURRAN
Title: **Vice President**
System Planning & Status Coordination

Transmission Owner
Northern Indiana Public Service Company LLC

By: _____
Name: _____
Title: _____

Interconnection Customer
Rosewater Wind Farm LLC

By: _____
Name: _____
Title: _____

By: _____
Name: _____
Title: _____

IN WITNESS WHEREOF, the Parties have executed this GIA in multiple originals;
each of which shall constitute and be an original GIA among the Parties.

Transmission Provider
Midcontinent Independent System Operator, Inc.

By: _____
Name: _____
Title: _____

Transmission Owner
Northern Indiana Public Service Company LLC

By: James E. Zucal
Name: JAMES E ZUCAL
Title: VP ELECTRIC ENGINEERING PROJECTS & CONSTRUCTION

Interconnection Customer
Rosewater Wind Farm LLC

By: _____
Name: _____
Title: _____

By: _____
Name: _____
Title: _____

Original Sheet No. 77

**IN WITNESS WHEREOF, the Parties have executed this GIA in multiple originals;
each of which shall constitute and be an original GIA among the Parties.**


Transmission Provider
Midcontinent Independent System Operator, Inc.


By: _____
Name: _____
Title: _____

Transmission Owner
Northern Indiana Public Service Company LLC

By: _____
Name: _____
Title: _____

Interconnection Customer
Rosewater Wind Farm LLC

By: 
Name: Ryan Brown
Title: Executive Vice President,
Eastern Region and Canada

By: 
Name: Steve Irvin
Title: Executive Vice President,
Western and Central Regions and Mexico



APPENDICES TO GIA

- Appendix A** Interconnection Facilities, Network Upgrades, System Protection Facilities, Generator Upgrades and Distribution Upgrades
- Appendix B** Milestones
- Appendix B-1** Pre-Certification Generation Test Notification Form
- Appendix C** Interconnection Details
- Appendix D** Security Arrangements Details
- Appendix E** Commercial Operation Date
- Appendix F** Addresses for Delivery of Notices and Billings
- Appendix G** Interconnection Requirements for a Wind Generating Plant
- Appendix H** Interconnection Requirements for Provisional GIA
- Appendix I** Requirements Applicable to Net Zero Interconnection Service

Appendix A To GIA

Interconnection Facilities, System Protection Facilities, Distribution Upgrades, Generator Upgrades and Network Upgrades

1. Description of Generating Facility

Interconnection Customer shall install a 116 MVA facility, rated at 100.05 MW gross and 100.05 MW net, with all studies performed at or below these outputs. The Generating Facility is composed of twenty nine (29) Vestas V136 units in a wind farm rated at 3.45 MW each. Interconnection Service provided under this agreement is 100.05 MW of Conditional ERIS that will become 100.05 MW of ERIS and/or NRIS where NRIS cannot exceed 100.05 MW upon completion all required Network Upgrades under this GIA and transmission assumptions listed in Exhibit A10.

Interconnection Customer shall install a switchyard with the appropriate protection equipment coordinated per Appendix C to this GIA. The Switchyard shall contain one generator step-up transformer 34.5/138 kV 69/92/115 MVA Z 6%, one 138 kV, 1200 A circuit breaker connected in series fashion. See Exhibit A1-1.

The Interconnection Customer will construct appropriate reactive support, based on the Transmission Owner's criteria, per FERC Order 827.

2. Interconnection Facilities:

- (a) **Point of Interconnection.** The Point of Interconnection shall be at the point where the lead line from Generating Facility lands on the new redesigned 138 kV bus at Transmission Owner's Reynolds substation. The Point of Change of Ownership shall be at the Transmission Owner's dead end structure outside of Reynolds substation. The metering point will be located at Reynolds 138 kV bus.
- (b) **Interconnection Facilities to be constructed by Interconnection Customer.** Interconnection Customer shall construct and own the Interconnection Customer Interconnection Facilities. These facilities shall include:
 - Three (3) mile 138kV generator lead line dead ending at the west side of Transmission Owner Reynolds Substation newly designed 138kV bus
 - The wind plant shall provide SCADA capability to transmit data and receive instruction from Transmission provider to protect system reliability. Transmission Provider and Interconnection Customer shall determine what SCADA information is essential for the proposed wind plant, taking into account the size of the plant and its characteristics, location, and importance in maintaining generation resource adequacy and transmission system reliability in its area

- Redundant Dual Fiber Optic Cables on SCADA System for OPGW from the Interconnection Customer substation to the Transmission Owner's dead end structure.

These facilities are detailed in Exhibit A1-1.

- (c) **Transmission Owner Interconnection Facilities to be constructed by Transmission Owner.** Transmission Owner shall construct a turning structure inside Reynolds substation, and the dead end structure outside of Reynolds substation with a fiber junction box, then construct a span of 795 ACSR "Drake" 138 kV line with OPGW from that first structure located outside of Reynolds substation to the Point of Interconnection. The Transmission Owner Interconnection Facilities shall include associated support structures and foundations. Transmission Owner shall install and own three meter grade current transformers and three CCVTs and a meter.

These facilities are estimated to cost \$ 394,271 and are detailed in Exhibit A2.

3. Network Upgrades:

- (a) **Stand-Alone Network Upgrades to be installed by Transmission Owner.**
None.
- (b) **Network Upgrades to be installed by Transmission Owner.**
- i. **Transmission Lines and Transformer connections:** Transmission Owner shall reconfigure the existing 138 kV bus at Reynolds to accommodate Generating Facility lead line. The Reynolds 138kV redesign requires constructing a new bus layout southwest of the existing 138kV yard. By installing the new bus structure separately from the in-service equipment, a significant reduction in the duration of the outages required for installation and commissioning can be achieved. The below grade construction for the grading, foundations, and control cable trough installation can be also be completed pre-outage. The location of the new bus will be south and west of the existing relay building.

The Reynolds 138kV site plan was developed for an ultimate breaker and a half bus arrangement, equipped initially with three bays, four line terminal positions, and space for a maintenance aisle and a future 4th bay. The location of this ultimate layout in the southwest corner achieves spacing between the gas transmission pipeline and the future 4th bay to no closer than 60 feet. The bays initially being constructed will not be completely equipped for a full breaker and a half arrangement, but shall be arranged to operate and be protected as a ring bus.

Major items include:

- Four Circuit Breakers, SF6, 145kV Max, 3000 A, 63 kA Int.
- Twelve Disconnect Switches, 138kV, 3000A, 3 ϕ , Group Operated
- Four Potential Transformers
- 750 feet 6" SPS Al tube, Schedule 40
- 1200 feet Aluminum wire, bare 2-1590 Kcmil

1. All circuit breakers for the new bus sections will be new, the existing three (3) circuit breakers shall be returned to stores or retired as determined by Transmission Owner.
2. The bus is designed for an ultimate layout as a breaker and one-half arrangement. The initial layout shall be configured and operated as a ring bus.
3. New 138kV potential transformers will be installed for each line and transformer position in the ring for the initial installation.
4. Equipment foundation design and installation assumes soil conditions similar to the new 345kV and 765kV yards.
5. New 138kV dead end structures are required. The type of take-off structure used in this study is similar to the tubular steel H-frame take off structures used in a recently completed Transmission Owner's substation project. New transmission line dead end structures in this study are tubular steel anchor bolted pole type structures.
6. All new protection and control equipment required at Reynolds Substation will be installed in the existing control building. All protection and control wiring will be routed from the existing control building in cable trough to the new yard. Control wiring connections to the 345kV relay house will also be required.

These facilities are estimated to cost \$6,457,226 in 2018 dollars and are detailed in Exhibit A2.

Rerouting spans of existing 138kV line around Reynolds

The Reynolds 138kV bus rebuild requires rerouting several spans of transmission Line 13857 from Goodland, Line 138-109 from Magnetation, and the transformer #1 low side connection. New strain bus support structures are also required for the Transformer #1 connection.

Estimated cost in 2018 dollars \$1,281,778

ii. Protection and Control modifications:

Estimated cost in 2018 dollars \$135,500

Relay Modification at Goodland Substation Transmission Owner will modify the relay package at Goodland substation for 13857 line.

- (c) **Shared Network Upgrade(s) to be funded by Interconnection Customer.**
None.

4. System Protection Facilities

- (a) **System Protection Facilities not listed in Section 2 or 3 to be constructed by Interconnection Customer.** None.
- (b) **System Protection Facilities not listed in 2 or 3 to be constructed by Transmission Owner.** None.

5. Distribution Upgrades:

- (a) **Distribution Upgrades to be constructed by Transmission Owner.** None.

6. Contingency List. See Exhibit A10.

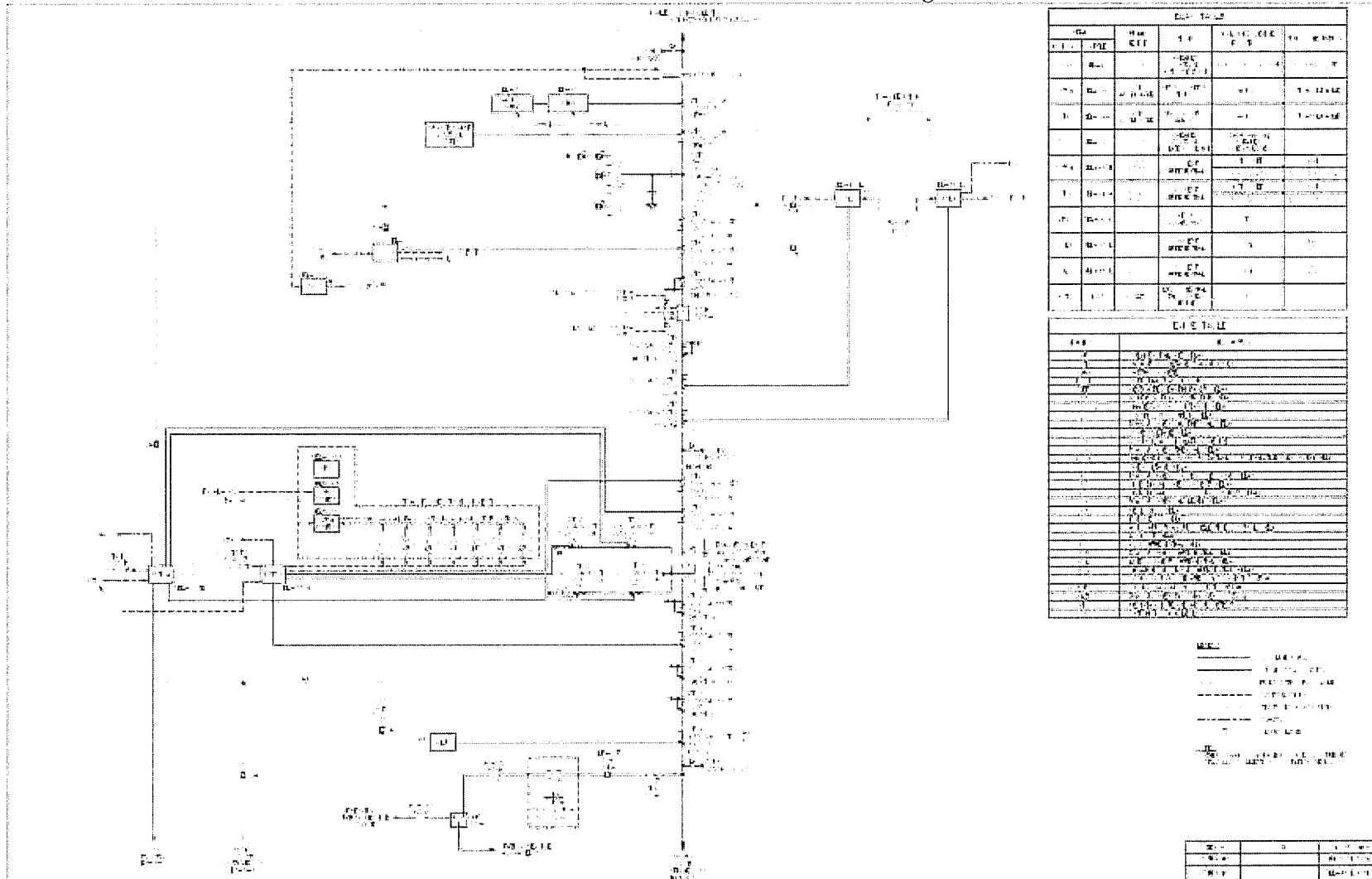
7. Affected System Upgrades List. None.

8. Exhibits – The following exhibits are included:

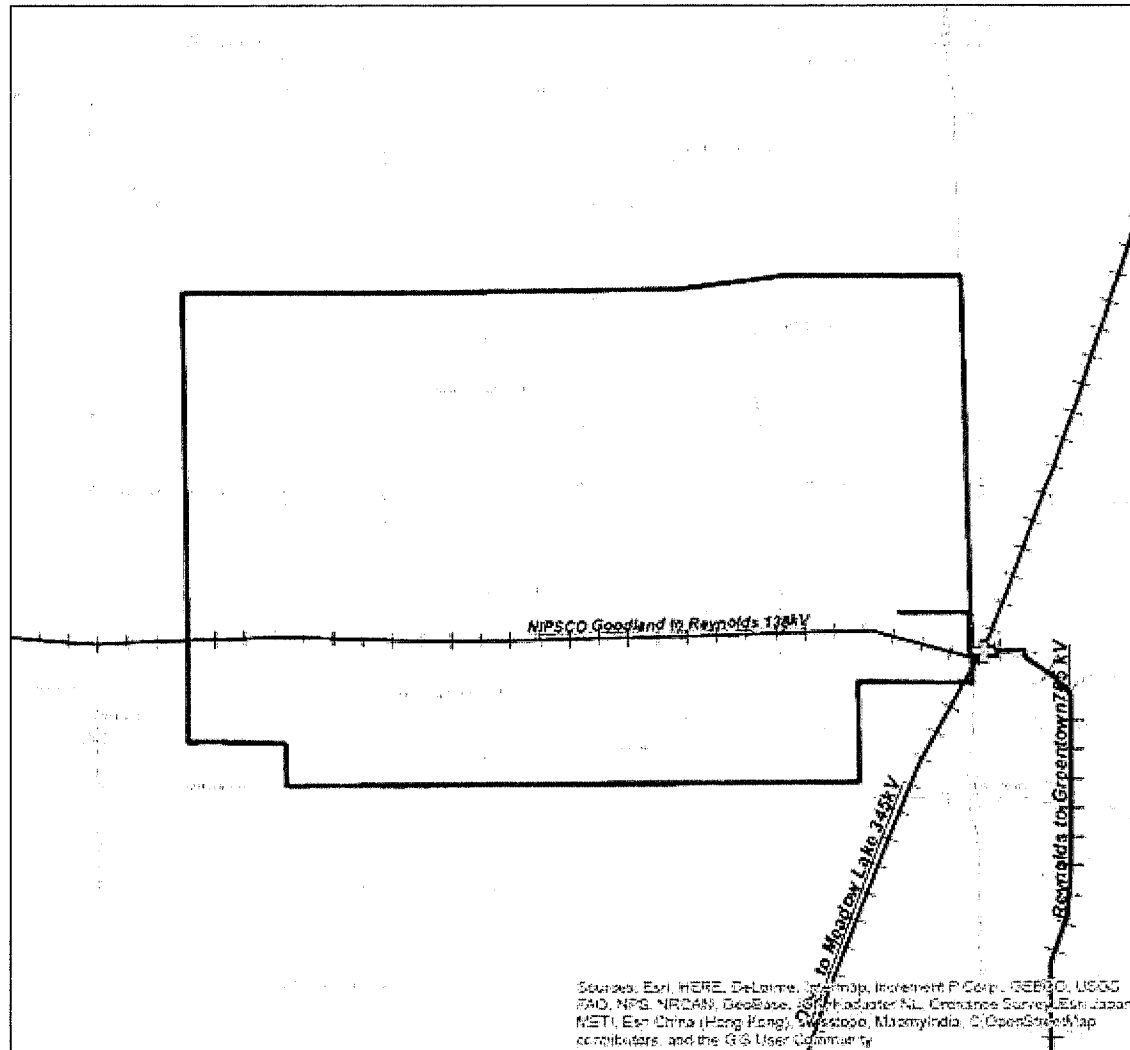
- A1. Interconnection Customer One-Line and Site Map
A1-1: Interconnection Customer One-Line Diagram
A1-2: Interconnection Customer Project Site Map
- A2. Transmission Owner One-Line and System Map
A2-1. Transmission Owner One-Line
A2-2. Transmission Owner Site Map
- A3. General Arrangement Drawings
- A4. Transmission Owner Substation Layout and Typical Structure
A4-1: Typical Horizontal Deadend
A4-2: Typical Double Circuit Deadend
A4-3: Typical Vertical Deadend
- A5. Facilities to be Constructed by Transmission Owner
- A6. Detailed Costs of Facilities to be Constructed by Transmission Owner
- A7. Network Upgrades to be Constructed by Interconnection Customer
- A8. Transmission Owner's Interconnection Facilities to be Constructed by Interconnection Customer
- A9. Facilities Subject to Transmission Owner Reimbursement



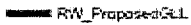
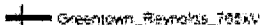


- A10. Contingent Facilities
- A11. {Reserved}
- A12. Construction and Coordination Schedules
- A13. Permits, Licenses, Regulatory Approvals and Authorization
- A14. Interconnection and Operating Guidelines

Exhibit A1. Interconnection Customer One-Line and Site Map
A1-1: Interconnection Customer One-Line Diagram



A1-2: Interconnection Customer Project Site Map Rosewater Wind Farm LLC - Project Area Map

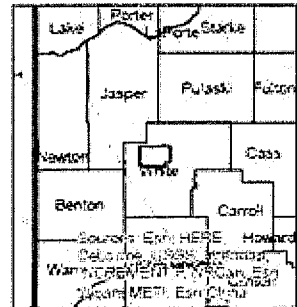


-  Rosewater_Boundary
-  Reynolds Substation - POI
-  RW_ProposedG.L.
-  Greentown_Reynolds_765KV
-  Owls_MeadowLake_345KV
-  MISO_Reynolds_138KVLine



Author Andrew Wagner
 Date: 6/13/2018
 Datum: NAD 1983
 Projection: IN State Plane West
 Scale: 1:60,000

Sources: EOPR, ESRI, NIPSCO, Verity



Sources: Esri, HERE, DeLorme, Mapbox, Infrared P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, Swisstopo, Mapbox NL, OpenStreetMap contributors, Swisstopo, Mapbox India, OpenStreetMap contributors, and the GIS User Community

**Exhibit A2. Transmission Owner One-Line and System Map
A2-1: Transmission Owner One-Line**

CEII MATERIAL – DO NOT RELEASE

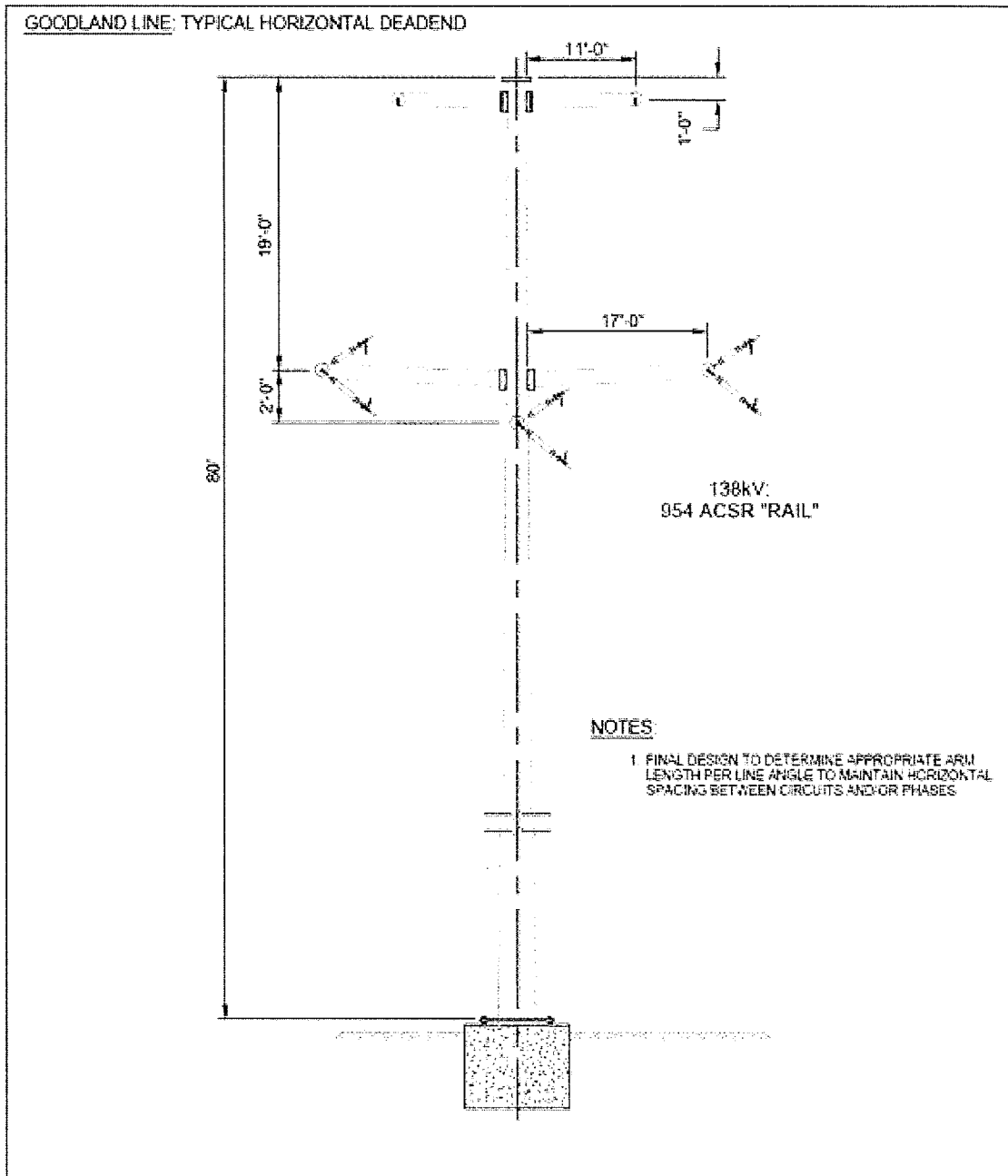
A2-2: Transmission Owner Site Map

CEII MATERIAL – DO NOT RELEASE

Exhibit A3. General Arrangement Drawing

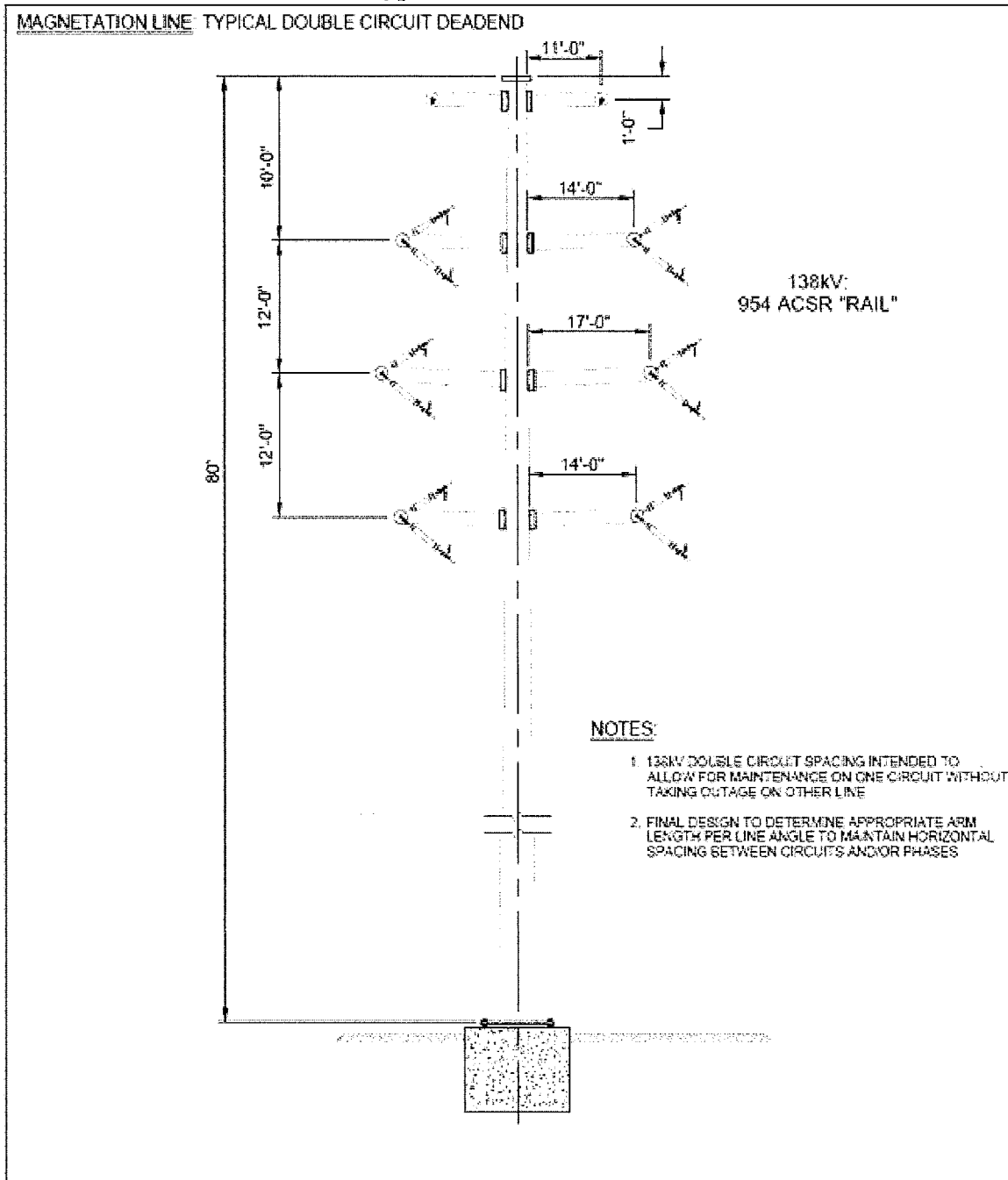
CEII MATERIAL – DO NOT RELEASE

Exhibit A4. Transmission Owner Substation Layout and Typical Structure
A4-1: Typical Horizontal Deadend



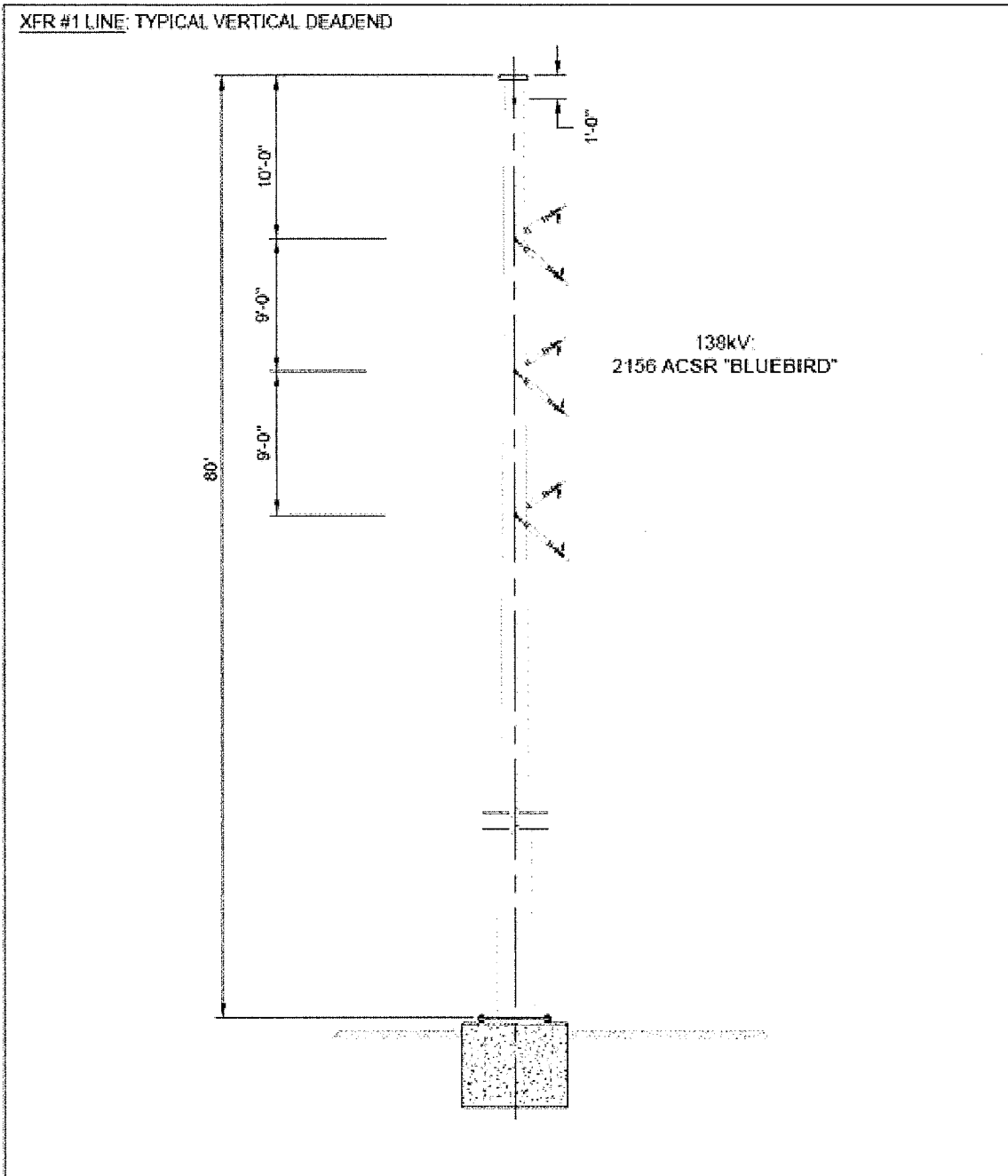
			NIPSCO AT THE LINE 138kV
DRAWN:	D. FOSTER	138kV DOUBLE CIRCUIT DEADEND GOODLAND LINE STRUCTURE SKETCH	
ENGINEER:	D. W. HALE		
DATE:	10/13/2017		

A4-2: Typical Double Circuit Deadend



			VEGAS LINE STATION LINE 138-138
			138kV DOUBLE CIRCUIT DEADEND MAGNETATION LINE
DRAWN: J. FOSTER	ENGINEER: R. W. KINLE	STRUCTURE SKETCH	
DATE: 10/27/17			

A4-3: Typical Vertical Deadend



BURNS MEDONNELL		NIPSCO	WIND TOWER AT THE STRAN BUS
DRAWN:	J. FOSTER	TWO-CIRCUIT DEADEND TRANSFORMER CONNECTION	
ENGINEER:	B. KINLEY	STRUCTURE SKETCH	
DATE:	11/14/2017		

Exhibit A5. Facilities to be Constructed by Transmission Owner

Type	Facilities to be Constructed by the Transmission Owner	Cost Estimate *
Transmission Owner Interconnection Facilities (TOIF)	Construct Transmission Owner's Interconnection Facilities at the Reynolds substation (the connection from the dead end structure to the TO substation bus 138kV and metering equipment)	\$394,271
Stand Alone Network Upgrade	Reynolds 138 kV bus reconfiguration	\$6,457,226
Network Upgrade	Transmission lines and Transformer reconnection at the new bus layout at Reynolds	\$1,281,778
Network Upgrade	Protection and Relay upgrades including Remote Sub Line Protection Upgrades	\$135,500
TOTAL		\$8,268,775

* AFUDC is estimated to be 0.767%. To be applied to all costs except Indirect Costs listed.

Exhibit A6. Detailed Costs of Facilities to be Constructed by Transmission Owner

Detailed cost estimates are provided in J513 Facility Study report dated October 18, 2017.

Exhibit A7. Network Upgrades to be Constructed by Interconnection Customer

There are no Transmission Owner Network Upgrades to be constructed by Interconnection Customer.

**Exhibit A8. Transmission Owner's Interconnection Facilities to be Constructed by
Interconnection Customer**

There are no Transmission Owner Interconnection Facilities to be constructed by Interconnection Customer.

**Exhibit A9. Facilities Subject to Transmission Owner Reimbursement
(refunds when applicable will be in accordance with Attachment FF)**

All costs associated with the projects listed in the table in Exhibit A5 will be funded by the Interconnection Customer. Those costs identified as Transmission Owner's Interconnection Facilities are not eligible for reimbursement.

Exhibit A10. Contingent Facilities

Higher queue and/or same DPP group study Interconnection Requests that may create contingencies pursuant to Article 11.3.1 are listed in tables below. Table A10-1 describes transmission assumptions modeled in the studies that were deemed necessary to allow for the Interconnection Service as described in Appendix A of this GIA and is not related to Article 11.3.1, i.e., does not describe projects associated with a higher queued and/or same DPP group study Interconnection Request. Nevertheless, if the transmission assumptions are not completed or significantly modified, the Interconnection Service granted under this GIA may be restricted until such time as the Interconnection Customer funds a study to determine the applicable ERIS and NRIS level that results due to the changes in Table 1.

The list of higher-queued and/or same DPP group study projects in Tables A10-2 and A10-3, not yet in service, were included in the interconnection study for queue project J513. However, a project's inclusion in the System Impact Study does not necessarily mean that these facilities would be contingencies for the Interconnection Customer's Generating Facility. In the event that any of the higher queued and/or same DPP group study generators were to drop out, then the Interconnection Customer may be subject to restudy pursuant to Article 11.3.2.

Table A10-1 Transmission Assumptions

MTEP ID	MTEP Project	Facility Description	Expected Completion Date	Status
None	None	None	None	None

Table A10-2 Higher Queued Projects for J513

MISO Higher Queued Project	Service Type	TO	County, State	Point of Interconnection	Summer MW (Net)	Fuel Type	Status
J351	NRIS	NIPS	St Joseph, IN	Stillwell 345 kV	705	Gas	Under Construction
J468	NRIS	AMIL	Douglas, IL	Sidney – Kansas West 345 kV	202	Wind	Under Construction
J515	ERIS	DEI	Benton&Warren, IN	Cayuga 345 kV	400	Wind	Under Construction

Table A10-3 Similar Queued Projects for J513

MISO Similar Queued Project	Service Type	TO	County	State	Point of Interconnection	Summer MW (Net)	Fuel Type	Status
J446	NRIS	DEI	Clinton	IN	Frankfort-New London 230 kV	200	Wind	DPP-2016-AUG-Central
J456	NRIS	AMRN	McDonough	IL	Niota-Macomb Northeast 138 kV	150	Wind	DPP-2016-AUG-Central
J474	NRIS	AMRN	DeWitt	IL	Tabor 138 kV	144	Wind	DPP-2016-AUG-Central
J641	NRIS	AMRN	Morgan, Scott	IL	Meredosia East - Jacksonville Industrial Park 138 kV	140 (ERIS) 111 (NRIS)	Solar	DPP-2016-AUG-Central
J643	NRIS	NIPSCO	Jasper	IL	RM Schahfer-Starke 138 kV	175	Solar	DPP-2016-AUG-Central
J644	NRIS	AMRN	Greene, Scott	IL	Jerseyville Northwest 138 kV	110	Solar	DPP-2016-AUG-Central
J648	External NRIS	CE	Cook	IL	SCEP switchyard 138 kV	296	Gas	DPP-2016-AUG-Central

Exhibit A11. {Reserved}