
VERIFIED DIRECT TESTIMONY OF ANDREW S. CAMPBELL

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

2 A1. My name is Andrew S. Campbell. I am the Director of Portfolio Planning
3 & Origination for Northern Indiana Public Service Company LLC
4 ("NIPSCO"). My business address is 801 E. 86th Avenue, Merrillville,
5 Indiana 46410.

6 **Q2. Please describe your educational and employment background.**

7 A2. I graduated from Purdue University Calumet with a Bachelor of Science in
8 Mechanical Engineering and graduate studies in Interdisciplinary
9 Engineering. Additionally, I graduated with a Master of Business
10 Administration from the University of Notre Dame. I began my
11 employment with NIPSCO in June of 2009 as an Operations Analysis
12 Engineer. In September of 2011, I was promoted to the Manager of
13 Operations & Market Support and in May of 2013, assumed the role of
14 Manager of Planning & Regulatory Support. In September of 2017, I was
15 promoted to my current role as Director of Regulatory Support &
16 Planning, which was subsequently updated to my current title of Director

1 of Portfolio Planning & Origination. Prior to joining NIPSCO, I worked as
2 an engineer for an industrial manufacturing company that specialized in
3 engine attachments for marine and small power generation applications. I
4 am also a veteran of the Army National Guard.

5 **Q3. What are your responsibilities as Director of Portfolio Planning &**
6 **Origination?**

7 A3. As Director of Portfolio Planning & Origination, I am responsible for
8 leading the regulatory support and financial planning functions for the
9 Energy Supply & Optimization ("ES&O") department within NIPSCO,
10 whereby my team supports NIPSCO's operations within the electric and
11 natural gas markets. More specifically, my team is responsible for leading
12 all commercial market support for electric and natural gas rate case-
13 related activities for the ES&O department, management of Midcontinent
14 Independent System Operator, Inc. ("MISO") meter data, MISO market
15 and bilateral settlements, MISO asset registration and resource adequacy,
16 supporting the forecast and reconciliation of NIPSCO's Fuel Adjustment
17 Clause ("FAC"), Regional Transmission Organization Adjustment,
18 Resource Adequacy ("RA") Adjustment, Green Power Rider, Gas Cost
19 Adjustment ("GCA"), Green Path Rider, leading the development of

1 NIPSCO's natural gas and electric hedging programs, and supporting
2 NIPSCO's financial and business planning cadence. I am also responsible
3 for leading the commercial execution of NIPSCO's generation strategy
4 outlined within its Integrated Resource Plan.

5 **Q4. Have you previously testified before this or any other regulatory**
6 **commission?**

7 A4. Yes. I previously filed testimony before the Commission supporting
8 NIPSCO's requests for a certificate of public convenience and necessity
9 ("CPCN") to purchase and acquire (indirectly through joint venture
10 structures) in Cause Nos. 45194, 45310, 45462, 45511, 45524, and 45529. I
11 also supported NIPSCO's request in Cause No. 45463 for a modification of
12 the Commission's Order in Cause No. 45310. I also filed testimony before
13 the Commission supporting NIPSCO's requests for approval and
14 associated cost recovery of power purchase agreements ("PPAs") in Cause
15 Nos. 45195, 45196, 45403, 45472, and 45489. I also filed testimony to
16 support NIPSCO's request to convert the Gibson power purchase
17 agreement approved in Cause No. 45489 to a build transfer agreement
18 currently pending in Cause No. 45926. Most recently, I filed testimony to
19 support NIPSCO's request for a modification of the Commission's Order

1 in Cause No. 45462 currently pending in Cause No. 45936.

2 I also filed testimony before the Commission in (1) NIPSCO's gas rate case
3 in Cause No. 45621, (2) NIPSCO's gas rate case in Cause No. 44988, (3)
4 NIPSCO's electric rate case in Cause No. 45772, and (4) NIPSCO's electric
5 rate case in Cause No. 45159. In addition, I filed testimony before the
6 Commission in (1) NIPSCO's request for approval of its Hedging Plans in
7 Cause No. 44205-S4 (2016), Cause No. 38706-FAC-118 (2018), Cause No.
8 38706-FAC-122 (2019), Cause No. 38706-FAC-126 (2020), Cause No. 38706-
9 FAC-130 (2021), Cause No. 38706-FAC-134 (2022), and Cause No. 38706-
10 FAC-138 (2023); (2) NIPSCO's request for approval of an amendment to
11 NIPSCO's 2017-2018 financing authority in Cause No. 45020; (3) NIPSCO's
12 request for approval of NIPSCO's proposed Green Path Rider currently
13 pending in Cause No. 45730; and (4) in some of NIPSCO's GCA tracker
14 filings in Cause No. 43629-GCA-XX, FAC tracker filings in Cause No.
15 38706-FAC-XX (including the subdocket in Cause No. 38706-FAC-130-S1),
16 RA Adjustment tracker filings in Cause No. 44155-RA-XX, and RTO
17 Adjustment tracker filings in Cause No. 44156-RTO-XX.

18 **Q5. What is the purpose of your testimony?**

1 A5. The purpose of my direct testimony is to support NIPSCO's request for
2 approval and issuance of a CPCN to construct a natural gas combustion
3 turbine ("CT") peaker plant (the "CT Project") on available property at the
4 R.M. Schahfer Generation Station site ("Schahfer site"). Specifically, I
5 discuss: (1) how the CT Project will interconnect into the Midcontinent
6 Independent System Operation Inc. ("MISO") market through the
7 replacement generation interconnection process, (2) NIPSCO's need for
8 capacity from a peaking unit, and (3) how NIPSCO will procure gas
9 supply for the Project at the lowest reasonable cost. Finally, I discuss how
10 the CT Project is consistent with the resource alternatives that must be
11 evaluated under Ind. Code § 8-1-8.5-4.

12 **Q6. Are you sponsoring any attachments to your direct testimony?**

13 A6. Yes. I am sponsoring Attachment 6-A, which is MISO's Attachment X,
14 Generator Interconnection Procedures.

15 **MISO and Associated Markets**

16 **Q7. Please briefly describe MISO.**

17 A7. MISO is a non-profit, member-based Regional Transmission Organization.
18 MISO performs the North American Electric Reliability Corporation
19 ("NERC") roles of Reliability Coordinator and Balancing Authority for

1 NIPSCO utilizing an extensive network model of the MISO interconnected
2 reliability region which includes NIPSCO and surrounding systems.
3 MISO conducts an annual Resource Adequacy Process and manages one
4 of the world's largest energy and operating reserves markets using
5 security-constrained economic dispatch of generation. The MISO Energy
6 and Operating Reserves Market (the "MISO Market") includes a Day-
7 Ahead Market, a Real-Time Market, and a Financial Transmission Rights
8 Market. These markets are operated and settled separately. MISO's
9 charges to provide services are recovered pursuant to its Federal Energy
10 Regulatory Commission ("FERC") tariff.

11 **Q8. Please provide a general overview of the MISO Resource Adequacy**
12 **construct.**

13 A8. As a Load Serving Entity in MISO, NIPSCO is obligated to have sufficient
14 Capacity Resources to cover its forecasted peak demand plus its Planning
15 Reserve Margin Requirements. Capacity Resources consist of Generation
16 Resources (electric generating units) and Demand Response Resources
17 (loads that can be dispatched to reduce demand). MISO calculates the
18 Planning Reserve Margin Requirement based on MISO's forecast of its
19 peak demand by resource zone considering planned maintenance or

1 forced outages of generating equipment, deratings in the capability of
2 Generation Resources and Demand Response Resources, system effects
3 due to reasonably anticipated variations in weather, and variations in
4 customer demands or forecast demand uncertainty. MISO conducts Loss
5 of Load Expectation studies each year to make an annual determination of
6 what the Planning Reserve Margin needs to be to attain compliance with
7 NERC reliability standards. If NIPSCO does not have sufficient Capacity
8 Resources to cover its forecasted peak demand and Planning Reserve
9 Margin, NIPSCO may acquire additional capacity through bilateral
10 transactions with other Market Participants or by bidding on capacity in
11 MISO's annual Planning Resource Auction ("PRA"). If NIPSCO does
12 have sufficient Capacity Resources to cover its forecasted peak demand
13 and Planning Reserve Margin, NIPSCO may sell its additional capacity
14 through bilateral transactions with other Market Participants or may offer
15 its additional capacity in MISO's PRA.

16 Based on the FERC Order dated August 31, 2022 in Docket Nos. ER22-495-
17 000 and ER22-495-001, MISO is now transitioning from the current
18 Summer-based, annual construct to four distinct Seasons: June to August
19 for Summer, September to November for Fall, December to February for

1 Winter, and March to May for Spring. This change took effect for the
2 2023-2024 MISO Planning Year, which began June 1, 2023. PRA will still
3 be conducted one time per year, in the Spring before the applicable
4 Planning Year, but will clear the requirements for each Season.

5 **Q9. Please provide a general overview of NIPSCO's participation in the**
6 **MISO Market.**

7 A9. NIPSCO participates in the MISO Market. NIPSCO offers the electricity
8 produced by its generation facilities and buys the electricity necessary to
9 serve its retail customers from the MISO Market on a day-ahead and real-
10 time basis. The day-ahead market is a forward market in which energy
11 and operating reserves are cleared on a simultaneously co-optimized basis
12 for each hour of the next operating day using Security-Constrained Unit
13 Commitment and Security-Constrained Economic Dispatch ("SCED")
14 computer programs to satisfy the energy demand bids and operating
15 reserve requirements of the day-ahead energy and operating reserve
16 market. The results of the day-ahead energy and operating reserve
17 market clearing include hourly locational marginal price ("LMP") values
18 for energy demand and supply, hourly market clearing price ("MCP")
19 values for regulating reserve, spinning reserve and supplemental reserve

1 supply, hourly energy demand schedules, hourly energy supply
2 schedules for each resource, and hourly regulating reserve, spinning
3 reserve and supplemental reserve supply schedules for each qualified
4 resource. The real-time market is a physical market in which energy and
5 operating reserve are cleared on a simultaneously co-optimized basis
6 every five minutes using SCED to satisfy the forecasted energy demand
7 and operating reserve requirements of the real-time market based on
8 actual system operating conditions, as described by MISO's state
9 estimator. The results of the real-time market clearing include five-minute
10 ex-ante LMPs for energy demand and supply, five-minute ex-ante MCP
11 values for regulating reserve, spinning reserve, and supplemental reserve
12 supply, and five-minute dispatch targets for each resource for energy,
13 regulatory reserve, spinning reserve, and supplemental reserve. The real-
14 time market dispatch is supported by a Reliability Assessment
15 Commitment process to ensure sufficient capacity is online to meet real-
16 time operating conditions.

17 **Q10. What are the benefits of participating in the MISO Market?**

18 A10. The MISO Market gives all participants open access to the transmission
19 system and all available resources are centrally dispatched using

1 simultaneous co-optimization. MISO provides a transparent and liquid
2 energy market across its entire footprint. Furthermore, ongoing
3 coordination between MISO and adjacent independent system operator
4 systems increases grid reliability and makes it possible to regionally
5 coordinate transmission expansion. The MISO Market allows NIPSCO to
6 make economic purchases from the open market when NIPSCO's cost of
7 generation is higher with the benefits flowing directly to its customers. In
8 addition, the MISO Market provides an opportunity to reduce the overall
9 amount of reserves being held by Market Participants thereby further
10 reducing the cost of providing those reserves to customers.

11 **Q11. How are the costs of participating in MISO accounted for?**

12 A11. Charges from MISO are presented to NIPSCO on settlement statements.
13 Settlement statements include charges/credits resulting from NIPSCO's
14 participation in the Resource Adequacy Process and the MISO Market.
15 Revenues from NIPSCO generation are netted against charges/credits to
16 NIPSCO load. Settlement statement charges from MISO are categorized
17 by NIPSCO as fuel and non-fuel.

18 **Q12. Please describe the MISO-related costs incurred by NIPSCO.**

1 A12. NIPSCO's MISO-related costs can be grouped into three categories: (1)
2 non-fuel charges assessed by MISO pursuant to its tariff that has been
3 accepted for filing by FERC;¹ (2) fuel-related costs incurred due to
4 participation in MISO pursuant to its tariff that has been accepted for
5 filing by FERC;² and (3) transmission costs accessed through Attachment
6 FF and other transmission costs pursuant to rate schedules that have been
7 accepted for filing by FERC. NIPSCO's MISO-related costs are generally
8 recovered through its RA Adjustment and RTO Adjustment semi-annual
9 tracker filings.

10 **Q13. How will the CT Project be connected to the grid and access the MISO**
11 **market?**

12 A13. As described below, the Schahfer site is already a base of NIPSCO
13 operations and has a gas interconnection with NIPSCO's gas system. The
14 CT Project will interconnect into the bulk electric system through the
15 existing Point of Interconnection at the Schahfer site utilized by the
16 retiring Schahfer Units 17 and 18. These MISO grid interconnection rights
17 can be transferred from existing coal units to the CT for up to three years

¹ See IURC Order dated June 1, 2005, in Cause No. 42685 ("42685 Order") and IURC Order dated June 30, 2009, in Cause No. 43426 ("43426 Order").

² See 42685 Order and 43426 Order.

1 after retirement. While there is a cost for the MISO interconnect study
2 (approximately \$180,000), there is minimal risk of any MISO transmission
3 upgrade costs. NIPSCO intends to utilize generator replacement
4 provisions as afforded under the MISO Tariff.³

5 **Q14. Please describe the MISO Replacement Generation Interconnection**
6 **process.**

7 A14. Section 3.7 of MISO's Generator Interconnection Procedures states that
8 any replacement generating facility must connect to the transmission
9 system at the same electrical point of interconnection as the existing
10 generating facility that is being replaced. Any request to interconnect
11 replacement generation must be submitted at least one year prior to the
12 date the existing generating facility will cease operations (unless the unit
13 is in suspension or forced outage). If the replacement generation requires
14 interconnection service greater than what the existing facility has, a
15 separate interconnection request must be made that is equal to the excess
16 amount. This interconnection request will be assigned a new queue
17 position and proceed through the MISO Definitive Planning Phase cycle

³ See Attachment 6-A, MISO Attachment X, Section 3.7.

1 in the same manner as that of a new generating facility seeking to
2 interconnect.

3 **Q15. How is NIPSCO leveraging the MISO Replacement Generation**
4 **Interconnection queue process to benefit customers?**

5 A15. Leveraging existing interconnection rights affords a more timely and cost-
6 effective outcome for customers, which meets the intention behind FERC's
7 approval of the generator replacement interconnection process in FERC
8 Docket No. ER19-1065. In the FERC order approving MISO's proposal,
9 FERC stated that it accepted MISO's Tariff revisions because they
10 represented an expedited process under MISO's Generator
11 Interconnection Procedures to replace existing generating facilities with
12 newer, more efficient generating facilities within MISO's queue
13 framework.⁴

14 A new entry into the MISO interconnection queue process can take
15 upwards of three years from the time studies commence through the
16 requisite definitive planning phases. While these studies are critical to
17 ensuring grid stability, it is widely known that the process results in

⁴ See *Midcontinent Indep. Sys. Operator, Inc.*, 167 FERC ¶ 61,146 (2019)).

1 extended periods of time where project uncertainty persists. Leveraging
2 Generator Replacement Rules optimizes the studies required given that
3 the Point of Interconnection is already known and associated with
4 generation injection into the grid. This affords a more streamlined process
5 and leverages existing infrastructure that may or may not be present in
6 the instance of a new Point of Interconnection. Given the proposed size of
7 the CT Project, NIPSCO will be able to fully leverage the MISO
8 Replacement Generation Interconnection queue process as the CT Project
9 will be smaller than the combined interconnection rights associated with
10 Schahfer Units 17 and 18.

11 **Q16. Are the expected interconnection costs included in the best estimate of**
12 **cost of construction presented in this Cause?**

13 A16. Yes. As discussed by NIPSCO Witness Baacke, NIPSCO has included the
14 expected costs associated with connecting the CT Project to the bulk
15 electric system.

16 **Capacity – MISO Requirements, Resources, Costs**

17 **Q17. Please describe MISO's current capacity market.**

18 A17. MISO's Resource Adequacy construct ensures that adequate capacity is
19 maintained for each of the MISO-developed Local Resource Zones to meet

1 the Planning Reserve Margin Requirement for the MISO footprint.
2 NIPSCO's Planning Reserve Margin Requirement obligations will be fixed
3 for the Planning Year and NIPSCO is required to have at least as many
4 Zonal Resource Credits as its forecasted peak demand at the time of the
5 MISO system peak plus the Planning Reserve Margin in the zone in which
6 NIPSCO serves load. NIPSCO can meet its Planning Reserve Margin
7 Requirement by: (1) Self-Scheduling, (2) Fixed Resource Adequacy Plan,
8 (3) Participating in the PRA, or (4) Paying the Capacity Deficiency Charge.
9 As previously mentioned, MISO's transition from the current Summer-
10 based annual construct to four distinct Seasons was recently approved by
11 FERC.

12 **Q18. How does NIPSCO participate in the MISO capacity market?**

13 A18. NIPSCO meets its Planning Reserve Margin Requirement obligations
14 under MISO's process by self-scheduling its resources⁵ in the PRA up to
15 its Planning Reserve Margin Requirement, wherein NIPSCO's forecasted
16 peak demand at the time of the MISO system peak plus Planning Reserve
17 Margin is netted against NIPSCO's identified supply-side generation and
18 registered demand-side assets (e.g., under Rate 831). Any proceeds from

⁵ This includes resources that NIPSCO owns and those it has contracted for.

1 the sale of excess capacity sold bi-laterally or through MISO's PRA are
2 credited within NIPSCO's RA Adjustment. NIPSCO purchases capacity
3 to meet its Resource Adequacy obligations either bi-laterally or through
4 MISO's PRA.

5 **Q19. Does the CT Project fulfill the capacity need identified in NIPSCO's**
6 **2021 IRP?**

7 A19. Yes. The 2021 IRP specifically pointed to a need for additional peaking
8 resources as a result of the expanded reliability studies. Additionally,
9 NIPSCO performed a portfolio analysis in 2023 ("the 2023 portfolio
10 analysis") to incorporate market shifts and changes that have occurred
11 since the 2021 IRP, specifically MISO market rule updates, passage of the
12 federal Inflation Reduction Act ("IRA"), updated market pricing from the
13 requests for proposals ("RFP") issued in 2022, and portfolio needs. The
14 2023 portfolio analysis continued to affirm the need for a gas peaking
15 facility and pointed to a potentially larger facility than originally
16 considered in the 2021 IRP. This is further described and discussed by
17 NIPSCO Witness Augustine.

1 **Q20. What information or analysis has MISO released publicly discussing**
2 **the significant transition of electric generation in the MISO region?**

3 A20. MISO released a report called the "MTEP22 Report" that included a
4 section on "Mind the Gap: Managing Today's Resource Transition
5 Challenges."⁶ In the MTEP22 Report Executive Summary, MISO notes
6 that it is fuel- and technology-neutral, but states as follows:

7 ...MISO is focused on reliability, and that means it is focused
8 on ensuring the resource portfolio has the necessary
9 capability and attributes. Yet, due to decarbonization goals,
10 economics and customer preferences, key existing resources
11 will retire. Some plans to build new resources with the
12 needed attributes are delayed or abandoned, and other
13 technologies are not ready for broad deployment. Proposed
14 replacement capacity has shown to be lacking key traits
15 given current technologies. The gap between retirement
16 capabilities and attributes is a growing reliability concern.⁷

17
18
19 **Q21. Does MISO identify the kinds of attributes that are provided by**
20 **different fuel source types in the MTEP22 Report Executive Summary?**

21 A21. Yes. Different resource types each bring a unique mix of attributes. While
22 every resource does not need to bring all attributes, MISO indicates that
23 its regional system will need an adequate supply of each attribute. The

⁶ MTEP Report Executive Summary at 4. This executive summary of this report is available at: <https://cdn.misoenergy.org/MTEP22%20Executive%20Summary626707.pdf>.

⁷ *Id.*

1 chart below, which comes from page 7 of the MTEP22 Report Executive
2 Summary, outlines different attributes or characteristics provided by
3 different generation resource types.

Informed Initial Hypothesis Matrix

Attribute/Resource Type <small>(illustrative list of attributes)</small>	Rotating Machine				Inverter-based			Demand-Side ²	
	Coal	Gas	Nuclear	Hydro	Solar	Wind ¹	Battery	Load Control	Energy Efficiency
Capacity	●	●	●	●	●	●	●	●	●
Fuel Assurance	●	● ⁺	●	●	●	●	●	●	●
Long Duration Energy at High Output	●	●	●	●	●	●	●	●	●
Voltage Stability	●	●	●	●	● ⁺	● ⁺	● ⁺	● ⁺	○
Ramp Up Capability	●	●	●	●	●	●	●	●	○
Rapid Start-Up	●	●	●	●	●	●	●	●	○
Black Start Capability	○	●	○	●	○ ⁺	○ ⁺	● ⁺	○	○

+ Attribute strength may increase in the future through technology advancements and/or standards development

[1] Wind power conversion technology has largely moved to Type 4 machines for new deployments, which are inverter-based, though deployed technology includes synchronous machines and doubly fed induction generator technologies, affecting characteristics.

[2] Distributed Energy Resource industry definitions often consist of 1) distributed generation, 2) distributed storage, 3) load control, and 4) energy efficiency. These are usually considered "demand-side" from the MISO perspective. For the above table, distributed storage and distributed generation are assumed to have characteristics consistent with bulk system resource counterparts (i.e., distributed battery and bulk system battery have same attributes) unless otherwise noted. Load Control and Energy Efficiency are called out separately.

4

5 As seen in the chart above, gas-fired generation resources have the
6 capability to provide each of the identified characteristics but can be
7 limited with respect to “fuel assurance.” Relative to inverter-based (e.g.,
8 renewable) resources, gas resources have a significant relative advantage
9 in providing (1) long duration energy at high output; (2) voltage stability;
10 (3) ramp up capability; (4) rapid start-up; and (5) black start capability.

11 **Q22. How does NIPSCO intend to ensure gas supply for the CT Project?**

1 A22. NIPSCO intends to support the CT's gas usage through options afforded
2 under transportation rates within NIPSCO's currently approved gas tariff,
3 specifically the gas transportation rates, riders, and pooling options.
4 NIPSCO's robust gas system has multiple interconnection points with
5 seven interstate pipelines. This diversity of supply is an uncommon
6 advantage associated with NIPSCO's gas system. Typically, natural gas
7 generators have only one option in terms of gas supply as they are
8 typically captive to only one interstate pipeline connection.

9 While NIPSCO is still formulating the exact fuel strategy it will employ for
10 the CT Project, NIPSCO is accustomed to managing its Sugar Creek
11 Generating Station supply, as well as legacy peaker units already at
12 Schahfer. As is common, NIPSCO employs an RFP process to support
13 firm delivery of gas needed to operate its gas units. Further, NIPSCO is
14 evaluating options of short haul transport in order to gain access to other
15 parts of the gas market area,⁸ as well as "no notice" services in addition to
16 the optionality that NIPSCO's gas tariff affords. NIPSCO's fuel strategy
17 for the CT Project will maintain a keen eye towards economics and
18 ensuring reliable sources of fuel supply. While NIPSCO is still finalizing

⁸ Parts of the Chicago market area (Chicago City Gate) and perhaps part of the lower Michigan (Michcon).

1 equipment selection, the expected 24-hour max burn for the CT Project is
2 approximately 84,000 DTH - 94,000 DTH.⁹ While this is a large quantity of
3 natural gas, the use case for the CT Project would generally result in a
4 lower daily burn as the CT Project is expected to have a relatively low
5 capacity factor.

6 **Subsection 4(b) Statutory Requirements**

7 **Q23. As required in the Commission's General Administrative Order 2023-03,**
8 **please address the elements of Ind. Code § 8-1-8.5-4(b).**

9 A23. Ind. Code § 8-1-8.5-4(b) states:¹⁰

10 In acting upon any petition for the construction, purchase, or
11 lease of any facility for the generation of electricity, the
12 commission shall take into account the following:
13 (1) The applicant's current and potential arrangement
14 with other electric utilities for:
15 (A) the interchange of power;
16 (B) the pooling of facilities;
17 (C) the purchase of power; and
18 (D) joint ownership of facilities.
19 (2) Other methods for providing reliable, efficient, and
20 economical electric service, including the refurbishment
21 of existing facilities, conservation, load management,
22 cogeneration, and renewable energy sources.

⁹ Hourly max burn is approximately 3,500 DTH – 3,900 DTH.

¹⁰ Per Ind. Code § 8-1-8.5-4(a) a "federal phaseout mandate" means any federal statutory or regulatory requirement that: (1) is established after April 20, 2021, by the Congress of the United States, a federal regulatory agency, or a federal executive order; and (2) requires the phaseout or discontinuance of a particular type of electric generating facility, technology, or fuel source.

1 (3) With respect to a petition that:

2 (A) is for the construction of a new generating facility;

3 and

4 (B) is submitted to the commission after June 30, 2021,
5 and before January 1, 2025; the impact of federal
6 phaseout mandates on the estimated useful life of
7 each proposed generating facility included in the
8 petition, including depreciation expense associated
9 with each facility.

10 (4) With respect to a petition that is submitted to the
11 commission after June 30, 2023, whether the proposed
12 construction, purchase, or lease of the facility will result
13 in the provision of electric utility service with the
14 attributes set forth in IC 8-1-2-0.6, including:

15 (A) reliability;

16 (B) affordability;

17 (C) resiliency;

18 (D) stability; and

19 (E) environmental sustainability;

20 as described in IC 8-1-2-0.6.

21
22 **Q24. In accordance with Subsection (b)(1), did NIPSCO consider other**
23 **resource options through its IRP or otherwise?**

24 A24. Yes. First, I would note that this portion of the statutory language
25 predates the formation of MISO; the statutory concepts of "interchange of
26 power" and "pooling of facilities" would seem to be addressed through
27 use of an independent system operator. Second, as I discussed above, the
28 current MISO market effectively utilizes the existing capacity resources in
29 the region in meeting the overall energy requirements of the region,
30 including NIPSCO. However, NIPSCO's membership in MISO does not

1 eliminate its need to meet the capacity requirements of its customers,
2 including adding new capacity resources to address potential load growth
3 and reliable load following generation are further discussed by NIPSCO
4 Witness Austin.

5 As to the remaining elements of the Subsection (b)(1), NIPSCO has
6 conducted several all-source RFPs and joint ownership and power
7 purchases were not excluded by those RFPs to the extent other electric
8 utilities were interested. As NIPSCO Witness Augustine testifies,
9 NIPSCO's all-source RFPs, its IRP, and the 2023 portfolio analysis allowed
10 for and considered numerous resource options, including solar, solar plus
11 storage, storage, thermal, wind, hydrogen, and a range of structures that
12 may include both energy and capacity.¹¹ Section 9.2 of the 2021 IRP
13 addresses the analysis showing that supply-side resources and demand-
14 side resources have been evaluated on a consistent and comparable basis,
15 including consideration of the following: (A) safety; (B) reliability (C) risk
16 and uncertainty; (D) cost effectiveness; and (E) customer rate impacts.

¹¹ See also Section 4.6 of 2021 IRP,, which specifically details the three separate all-source RFP events conducted by CRA on behalf of NIPSCO.

1 **Q25. Subsection (b)(2) requires consideration of other methods for providing**
2 **reliable, efficient, and economical electrical service, including**
3 **refurbishment of existing facilities, conservation, load management,**
4 **cogeneration, and renewable energy sources. Have these factors been**
5 **considered?**

6 A25. Yes. Renewable generation has been a significant component of
7 NIPSCO's generation portfolio transition since its 2018 IRP, and the CT
8 Project is intended to complement the substantial renewable fleet that
9 NIPSCO has added and continues to add. Cogeneration, if available,
10 would have been responsive to the all-source RFPs. NIPSCO Witnesses
11 Augustine and Walter discuss NIPSCO's evaluation of refueling Schahfer
12 Units 17 and 18. NIPSCO Witness Becker discusses NIPSCO's demand
13 resource programs, including conservation efforts and load management
14 programs.

15 **Q26. Subsection (b)(3) requires consideration of the impact of federal**
16 **phaseout mandates on the estimated useful life of each proposed**
17 **generating facility included in the petition, including depreciation**
18 **expense associated with each facility. Has the impact of any known**
19 **federal phaseout mandates been considered?**

1 A26. It is NIPSCO's understanding that there are no currently applicable
2 federal phaseout mandates.

3 **Q27. Which NIPSCO witness addresses the "Five Pillars" delineated in**
4 **Subsection (b)(4)?**

5 A27. NIPSCO Witness Walter addresses the Five Pillars in his direct testimony.
6 Ms. Becker sponsors Attachment 1-C showing each of the Five Pillars and
7 identifies the NIPSCO witness sponsoring supporting testimony related to
8 each pillar.¹²

9 **Q28. In accordance with Ind. Code § 8-1-8.5-5(e)(2), has NIPSCO solicited**
10 **competitive bids to obtain purchased power capacity and energy from**
11 **alternative suppliers?**

12 A28. Yes. NIPSCO solicited competitive bids to obtain purchase power
13 capacity and energy from alternative suppliers as a part of the all-source
14 RFPs utilized in the IRP process.

¹² For convenience, Attachment 1-C is also attached to NIPSCO's Verified Petition as Attachment B.

1 **Conclusion**

2 **Q29. Is NIPSCO confident that it can reliably and affordably serve its**
3 **customers during and upon completion of its generation transition?**

4 A29. Yes. NIPSCO's 2021 IRP, which included an expanded analysis of
5 reliability, affirmed the early retirement of coal is still cost-effective for
6 customers and replacement resources containing a diverse, flexible, and
7 scalable mix of incremental resources support continued reliability. As
8 outlined by NIPSCO Witness Augustine, the 2023 portfolio analysis
9 incorporated market shifts and changes that have occurred since the 2021
10 IRP, including the MISO seasonal resource adequacy construct. These
11 changes point to the increased need for capacity-advantaged resources in
12 the portfolio.

13 NIPSCO is effectuating the generation transition in a number of ways,
14 including construction of the CT Project, updating at-risk projects that are
15 no longer viable, executing solar and wind PPAs, and seeking approval of
16 cost and structure updates that take advantage of IRA incentives.¹³ As

¹³ NIPSCO has sought approval of a (1) Solar Energy Purchase Agreement between NIPSCO and Appleseed Solar, LLC dated January 24, 2023; (2) Wind Energy Purchase Agreement between NIPSCO and Templeton Wind Energy Center, LLC dated February 13, 2023 currently pending in Cause No. 45887; (3) a Wind Energy Purchase Agreement between NIPSCO and Carpenter Wind

1 described above, NIPSCO is leveraging existing interconnection rights at
2 the Schahfer site for the CT Project, which serves to reduce the overall cost
3 of the project and provide greater timing certainty for its completion.

4 Overall, NIPSCO is confident that, through its own resource planning
5 efforts and its participation in the MISO market, it will be able to serve all
6 its customers reliably and affordably during and upon completion of its
7 generation transition.

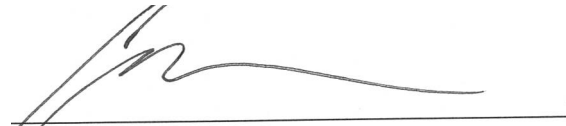
8 **Q30. Does this conclude your prefiled direct testimony?**

9 A30. Yes.

Farm LLC dated April 13, 2023 currently pending in Cause No. 45908; (4) conversion of the at-risk Gibson PPA approved June 29, 2021 in Cause No. 45489 to a build transfer agreement pending in Cause No. 45926, along with termination of the Elliott Project approved July 28, 2021 in Cause No. 45529, and; (5) cost increases and amended terms in the Dunn's Bridge II BTA and Cavalry BTA both approved May 5, 2021 in Cause No. 45462 pending in Cause No. 45936.

VERIFICATION

I, Andrew S. Campbell, Director of Portfolio Planning & Origination for Northern Indiana Public Service Company LLC, affirm under penalties of perjury that the foregoing representations are true and correct to the best of my knowledge, information, and belief.



Andrew S. Campbell

Date: September 12, 2023

ATTACHMENT X

GENERATOR INTERCONNECTION PROCEDURES (GIP)

SECTION 1. DEFINITIONS.

10 kW Inverter Process shall mean the procedure for evaluating an Interconnection Request for a certified inverter-based Small Generating Facility no larger than 10 kW that uses the screen set forth in Section 14.

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.

Base Case Data shall mean base case power flow, short circuit and stability databases, including all underlying assumptions, and contingency lists. Such databases and lists, hereinafter referred to as Base Cases, shall include all (1) generation projects and (2) transmission projects, including merchant transmission projects that are proposed for the Transmission System for which a transmission expansion plan has been submitted and approved by the MISO Board.

Breach shall mean the failure of a Party to perform or observe any material term or condition of the Generator Interconnection Agreement.

Breaching Party shall mean a Party that is in Breach of the Generator Interconnection Agreement.

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

Calendar Day shall mean any day including Saturday, Sunday or a Federal Holiday. In the event that a period specified in this GIP is calculated in Calendar Days ends on a non-business day, such period shall be deemed to conclude on the following business day.

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 by the Parties pursuant to Appendix E to the Generator Interconnection Agreement.

Common Use Upgrade 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 of the GIA, 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.

Connection Facilities shall mean the Transmission Owner's Connection Facilities and the MHVDC Connection Customer's Connection Facilities, as defined in the MHCP.

Contingent Facilities shall mean those unbuilt Interconnection Facilities and Network Upgrades upon which the Interconnection Request's costs, timing and study findings are dependent, and if delayed or not built, could cause a need for restudies of the Interconnection Request or a reassessment of the Interconnection Facilities and/or Network Upgrades and/or costs and timing. Contingent Facilities may include facilities identified in MTEP that if delayed or not built could impact the timing of the Interconnection Request.

Default shall mean the failure of a Breaching Party to cure its Breach in accordance with Article 17 of the Generator Interconnection Agreement.

Definitive Planning Phase shall mean the Generator Interconnection Procedures process which leads to a Generator Interconnection Agreement. An Interconnection Customer enters the Definitive Planning Phase pursuant to GIP Section 7.2. The Definitive Planning Phase includes three distinct phases (Definitive Planning Phases I, II, and III) pursuant to Section 7 of the Generator Interconnection Procedures.

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 GIP Section 7.2 of the Generator Interconnection Procedures to enter the Definitive Planning Phase. All Interconnection Requests within the same Definitive Planning Phase cycle shall have equal priority (i.e. similarly queued).

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 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 the Generator Interconnection Agreement 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 the Generator Interconnection Agreement 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 Surplus 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.

Existing Generating Facility shall mean a Generating Facility that is either under construction or is in service, and has an unsuspended interconnection agreement with its host transmission provider.

Facilities Construction Agreement (FCA) shall mean the form of facilities construction agreement, set forth in Appendix 8 to these Generator Interconnection Procedures. The FCA shall be used when an Interconnection Customer causes the need for the construction of Network Upgrades or System Protection Facilities on the transmission system of an Affected System.

Fast Track Process shall mean the procedure for evaluating an Interconnection Request for a certified Small Generating Facility no larger than five MW that includes the screen set forth in Section 14, customer options meeting, and optional supplemental review.

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.

Final System Impact Study shall mean the Interconnection System Impact Study performed during Definitive Planning Phase III.

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 and shall not include a SATOA as defined in Module A. A Generating Facility consists of one or more generating unit(s) and/or storage device(s) which usually can operate independently and be brought online or taken offline individually.

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.

Generating Facility Modification shall mean modification to an Existing Generating Facility, including comparable replacement of only a portion of the equipment at the Existing Generating Facility.

Generating Facility Replacement shall mean replacement of one or more generating units and/or storage devices at an Existing Generating Facility with one or more new generating units or storage devices at the same electrical Point of Interconnection as those being decommissioned and electrically disconnected.

Generator Interconnection Agreement (GIA) shall mean the form of interconnection agreement, set forth in Appendix 6 to these Generator Interconnection Procedures.

Generator Interconnection Procedures (GIP) shall mean the interconnection procedures set forth herein.

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 Interconnection 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.

Injection Rights shall mean the Transmission Provider’s pre-certification of the Transmission System’s capability to receive capacity and energy from the MHVDC Transmission Line at the requested Point of Connection, and in the specified MW quantity, without degrading the reliability of the Transmission System, as described in Section 16 of the GIP and Section 3.2.3 of the MHCP.

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 back feed 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 Decision Point I shall mean the time period beginning when the Interconnection Customer is provided the Preliminary System Impact Study results including cost estimates for upgrades and concludes after fifteen (15) Business Days.

Interconnection Customer Decision Point II shall mean the time period beginning when the Interconnection Customer is provided the Revised System Impact Study results including cost estimates for upgrades and the Affected Systems analysis results including cost estimates for upgrades on the Affected System and concludes after fifteen (15) Business Days.

Interconnection Customer's Interconnection Facilities (ICIF) shall mean all facilities and equipment, as identified in Appendix A of the Generator Interconnection Agreement, 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(ies) shall mean a study conducted by Transmission Provider, or its agent, for Interconnection Customer(s) to determine a list of facilities (including Interconnection Customer's Interconnection Facilities, 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(ies) with the Transmission System.

Interconnection Request shall mean (1) 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, or to interconnect an Existing Generating Facility that is external to the Transmission System, or to change Energy Resource Interconnection Service to Network Resource Interconnection Service for an Existing Generating Facility; or (2) an MHVDC Connection Customer's request, in the form of Appendix 1 to the Generator Interconnection Procedures, to obtain Injection Rights.

Interconnection Service shall mean the service provided by Transmission Provider associated with interconnecting the Generating Facility to the Transmission System, or external host transmission provider if applicable, and enabling it to receive electric energy and capacity from the Generating Facility at the Point of Interconnection pursuant to the terms of the Generator Interconnection Agreement or Point of Delivery as set forth in Service Agreement for Network Resource Interconnection Service for an External Generating Facility and, if applicable, the Tariff.

Interconnection Study (or Study) shall mean any of the following studies: the Replacement Impact Study, the Reliability Assessment Study, the Optional Interconnection Study, the Interconnection System Impact Study including evaluations for Surplus

Interconnection Service, and the Interconnection Facilities Study, or the Restudy of any of the above, described in 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.

Interconnection Study Agreement shall mean the forms of agreement contained in Attachment B to Appendix 1 of the Generator Interconnection Procedures for conducting all studies required by 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 the Generator Interconnection Agreement on behalf of the indemnifying Party, except in cases of gross negligence or intentional wrongdoing, by the indemnified party.

Material Modification shall mean: (1) modification to an Interconnection Request in the queue that has a material adverse impact on the cost or timing of any other Interconnection Request with a later queue priority date; or (2) planned modification to an Existing Generating Facility that is undergoing evaluation for a Generating Facility Modification or Generating Facility Replacement, and has a material adverse impact on the Transmission System with respect to: i) steady-state thermal or voltage limits, ii) dynamic system stability and response, or iii) short-circuit capability limit; compared to the impacts of the Existing Generating Facility prior to the modification or replacement.

Merchant HVDC Connection Customer (MHVDC Connection Customer) shall mean any entity that proposes to interconnect an MHVDC Transmission Line with the Transmission System, as set forth in the MHCP.

Merchant HVDC Connection Procedures (MHCP) shall mean the connection procedures set forth in Attachment GGG to the Tariff.

Merchant HVDC Transmission Connection Request (MHVDC Transmission Connection Request) shall mean an MHVDC Connection Customer's request, in the form of Appendix 1 to the MHCP to interconnect a new MHVDC Transmission Line, increase the capacity of an existing MHVDC Transmission Line, or make a substantial modification to the operating characteristics of an existing MHVDC Transmission Line.

Merchant HVDC Transmission Connection Agreement (Transmission Connection Agreement or TCA) shall mean the form of the transmission connection agreement for merchant HVDC transmission facilities set forth in Appendix 2 to the MHCP.

Merchant HVDC Transmission Line (MHVDC Transmission Line) shall mean the merchant high voltage direct current transmission line external to the Transmission System that is proposed for connection to the Transmission System, as defined in the MHCP.

Metering Equipment shall mean all metering equipment installed or to be installed at the Generating Facility, Interconnection Customer's Interconnection Facilities, and/or Transmission Owner's Interconnection Facilities pursuant to the Generator Interconnection Agreement 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 Surplus Interconnection Service. The Monitoring and Consent Agreement will list the roles and responsibilities of an Interconnection Customer seeking to interconnect with Surplus Interconnection Service and Transmission Owner to maintain the total output of the Generating Facility inside the parameters delineated in the GIA.

Multi-Party Facilities Construction Agreement (MPFCA) shall mean the form of facilities construction agreement, set forth in Appendix 9 to these Generator Interconnection Procedures. The MPFCA shall be used when multiple Interconnection Requests cause the need for the construction of Common Use Upgrades on the Transmission System or the transmission system of an Affected System and share cost responsibility for such Common Use Upgrades.

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

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(ies) to the Transmission System. Network Upgrades 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 the Generator Interconnection Agreement or its performance.

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.

Outage Transfer Distribution Factor (OTDF) Outage Transfer Distribution Factor, as defined by NERC.

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

Permissible Technological Advancement shall mean advancements to turbines, inverters, plant supervisory controls, excitation systems, or other technological advancements submitted to the Transmission Provider prior to the issuance of a draft Generator Interconnection Agreement for such project provided that such advancements does not: (1) degrade the electrical characteristics of the generating equipment; (2) does not cause any material adverse impact on the Transmission System with regard to short circuit capability limits, steady-state thermal and voltage limits, or dynamic system stability and response; (3) does not increase the installed capacity of the Generating Facility; or (4) change the fuel source of the proposed Generating Facility.

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 Connection shall mean the point, as set forth in an MHVDC Transmission Connection Request, where the MHVDC Transmission Line connects to the Transmission System.

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.

Power Transfer Distribution Factor (PTDF) Power Transfer Distribution Factor, as defined by NERC.

Preliminary System Impact Study shall mean the Interconnection System Impact Study performed during Definitive Planning Phase I

Pre-Queue Phase shall mean Interconnection Customer outreach and education effort undertaken prior to the submission of the Interconnection Request.

Provisional Generator Interconnection Agreement shall mean the interconnection agreement for Provisional Interconnection Service established between the Transmission Provider and/or the Transmission Owner and the Interconnection Customer as set forth in Section 7.9 of this Attachment X. This agreement shall take the form of the Generator Interconnection Agreement modified for provisional purposes. Unless otherwise provided in the GIP, all requirements applicable to the Generator Interconnection Agreement shall apply to the Provisional Generator Interconnection Agreement.

Provisional Interconnection Service shall mean Interconnection Service provided by the Transmission Provider associated with interconnecting the Interconnection Customer's Generating Facility to the Transmission Provider's Transmission System and enabling that Transmission System to receive electric energy and capacity from the Generating Facility at the Point of Interconnection, pursuant to the terms of the Provisional Generator Interconnection Agreement and the Tariff.

Provisional Interconnection Study shall mean an engineering study, performed at Interconnection Customer's request, as a condition to entering into a Provisional Generator Interconnection Agreement, 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 mean, with respect to an action required to be attempted or taken by a Party under the Generator Interconnection Agreement, efforts that are timely and consistent with Good Utility Practice and are otherwise substantially equivalent to those a Party would use to protect its own interests.

Reliability Assessment Study shall mean an engineering study that evaluates the impact of a proposed Generating Facility Replacement on the reliability of Transmission System during the time period between the date that the Existing Generating Facility ceases commercial operations and the Commercial Operation Date of the Replacement Generating Facility.

Replacement Generating Facility shall mean a Generating Facility that replaces an Existing Generating Facility, or a portion thereof, at the same electrical Point of Interconnection pursuant to Section 3.7 of this Attachment X.

Replacement Impact Study shall mean an engineering study that evaluates the impact of a proposed Generating Facility Replacement on the reliability of the Transmission System.

Revised System Impact Study shall mean the Interconnection System Impact Study performed during Definitive Planning Phase II

Scoping Meeting shall mean the meeting between representatives of Interconnection Customer or MHVDC Connection 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 or Points of Connection.

Shared Network Upgrade shall mean a Network Upgrade or Common Use Upgrade that is funded by an Interconnection Customer(s), including when the Transmission Owner elects to

fund the capital cost of such a Network Upgrade or Common Use Upgrade under Section 11.3 of the GIA, and also benefits other Interconnection Customer(s) or MHVDC Connection Customer(s) that are later identified as beneficiaries.

Site Control shall mean a documented right for one or more parcels of land for the purpose of constructing a Generating Facility, Interconnection Customer's Interconnection Facilities, and, if applicable (*i.e.*, when the Interconnection Customer is providing the site for such facilities), the Transmission Owner's Interconnection Facilities and Network Upgrades at the POI that the Interconnection Customer will develop. Such documented right shall be one of the following: (1) ownership of a site; (2) a leasehold interest in a site; (3) an option to purchase or acquire a leasehold interest in a site; or (4) any other contractual or legal right to possess or occupy a site.

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.

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 are not part of an Affected System, that an Interconnection Customer or MHVDC Connection Customer may construct without affecting day-to-day operations of the Transmission System during their construction. Transmission Provider, Transmission Owner and Interconnection Customer or

MHVDC Connection Customer must agree as to what constitutes Stand Alone Network Upgrades and identify them in Appendix A to the Generator Interconnection Agreement or Appendix B of the Transmission Connection Agreement. If the Transmission Provider or Transmission Owner and Interconnection Customer disagree about whether a particular Network Upgrade is a Stand Alone Network Upgrade, the Transmission Provider or Transmission Owner that disagrees with the Interconnection Customer must provide the Interconnection Customer a written technical explanation outlining why the Transmission Provider or Transmission Owner does not consider the Network Upgrade to be a Stand Alone Network Upgrade within 15 days of its determination.

Surplus Interconnection Service shall mean any Interconnection Service that is derived from the unneeded portion of Interconnection Service established in a GIA or in agreement with, or under the tariff of, a Transmission Owner prior to integration into MISO, such that if Surplus Interconnection Service is utilized the total amount of Interconnection Service at the Point of Interconnection would remain the same.

System Planning and Analysis Phase shall mean the phase of the Generator Interconnection Procedure process, prior to January 4, 2017, which consisted of an Interconnection System Impact Study for those Interconnection Requests that were studied in this phase.

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 the Generator Interconnection Agreement, 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.

SECTION 2. SCOPE AND APPLICATION.

2.1 Application of Generator Interconnection Procedures.

- a. Sections 2 through 13 of the GIP apply to processing an Interconnection Request pertaining to a Generating Facility. The GIP specifically applies when one of the following is proposed by an Interconnection Customer: (i) a new Generating Facility at a new Point of Interconnection that does not meet the criteria set forth in Sections 2.1 (b) or (c), (ii) additional generation at an existing Point of Interconnection, (iii) an increase in the capacity of an Existing Generating Facility, (iv) a Generating Facility Modification that may constitute a Material Modification to the operating characteristics of an Existing Generating Facility, or (v) a Replacement Generating Facility. The evaluation in subpart (iv) will be performed expeditiously depending on the specific information regarding any proposed Generating Facility Modification and the existence of an Emergency Condition.
- b. Section 14 of the GIP applies to a request to interconnect a certified Small Generating Facility meeting the certification criteria set forth in Appendix 3.
- c. A request to interconnect a certified inverter-based Small Generating Facility no larger than 10 kW shall be evaluated under the Appendix 4 – 10 kW Inverter Process.
- d. A request to interconnect to HVDC Facilities subject to Section 27A of the Tariff will be incorporated into the queue as described in Sections 2 through 13 of the GIP. Modifications to the process necessitated by the physics of a connection to HVDC Facilities are found in Section 15 of the GIP, and will apply to those requests to interconnect to HVDC Facilities.

- e. Network Resource Interconnection Service is available to Existing Generating Facilities connected to facilities external to the Transmission System, including any Existing Generating Facilities connected to any MHVDC Transmission Line. Such a request for Network Resource Interconnection Service shall be memorialized with a Service Agreement as found in Appendix 13 of the GIP.
- f. Sections 1 through 7, Section 10, Section 13 and Section 16 of the GIP apply to processing an Interconnection Request pertaining to Injection Rights for an MHVDC Transmission Line. Any such request for Injection Rights will be incorporated into the queue as described in Sections 2 through 7 of the GIP. Procedures for obtaining Injection Rights and the conversion of those rights to external Network Resource Interconnection Service are set forth in Section 16 of the GIP. All references to MHVDC Connection Customer(s) in these GIP shall be understood to refer to MHVDC Connection Customer(s) seeking Injection Rights.
- g. A request for Replacement Generating Facility shall be evaluated pursuant to Section 3.7 of the GIP.
- h. A request for Generating Facility Modification for an Existing Generating Facility must be submitted to and coordinated with the Transmission Provider pursuant to the provisions set forth in the Generator Interconnection Business Practices Manual to allow the Transmission Provider to determine whether the proposed modification would result in a substantive modification to the operating characteristics of such Existing Generating Facility.

2.2 Comparability.

Transmission Provider shall receive, process and analyze all Interconnection Requests in a timely manner as set forth in the GIP. Transmission Provider will use the same Reasonable Efforts in processing and analyzing Interconnection Requests from all

Interconnection Customers regardless of Generating Facility ownership and from all MHVDC Connection Customers regardless of MHVDC Transmission Line ownership.

2.3 Base Case Data.

Transmission Provider shall maintain base power flow, short circuit and stability databases, including all underlying assumptions, and contingency list on a password-protected website, subject to confidentiality provisions in GIP Section 13.1. In addition, Transmission Provider shall maintain network models and underlying assumptions on such password-protected website. Such network models and underlying assumptions should reasonably represent those used during the most recent interconnection study and be representative of current system conditions. A link to the information is provided on Transmission Provider's OASIS site. Interconnection Customers and password-protected website users must sign a confidentiality agreement before the release of commercially sensitive information or Critical Energy Infrastructure Information in the Base Case data. Such databases and lists shall include all (i) generation projects and (ii) transmission projects, including merchant transmission projects that are proposed for the Transmission System for which a transmission expansion plan has been submitted and approved by the MISO Board.

2.4 No Applicability to Transmission Service.

Nothing in the GIP shall constitute a request for transmission service or confer upon an Interconnection Customer or MHVDC Connection Customer any right to receive transmission service or Wholesale Distribution Service under the Tariff.

SECTION 3. INTERCONNECTION REQUESTS.

3.1 General.

An Interconnection Customer or MHVDC Connection Customer shall submit to Transmission Provider an Interconnection Request in the form of Appendix 1 to the GIP and the deposit along with the other items listed in Section 3.3.1 of these GIP in the

manner specified by the Generator Interconnection Business Practices Manual (BPM-015). Transmission Provider shall apply the deposit towards the cost of any Interconnection Study. Interconnection Customer or MHVDC Connection Customer shall submit a separate Interconnection Request for each site and may submit multiple Interconnection Requests for a single site. Interconnection Customer or MHVDC Connection Customer must submit a deposit with each Interconnection Request even when more than one request is submitted for a single site. An Interconnection Request to evaluate one site at two different voltage levels shall be treated as two Points of Interconnection; provided, however, that an Interconnection Request for Injection Rights shall only evaluate one voltage level at each Point of Connection.

Transmission Provider shall have a process in place to consider requests for Interconnection Service below the Generating Facility Capacity. These requests for Interconnection Service shall be studied at the level of Interconnection Service requested for purposes of Interconnection Facilities and Network Upgrades, and associated costs, but may be subject to other studies at the full Generating Facility Capacity to ensure safety and reliability of the system, with the study costs borne by the Interconnection Customer. If after the additional studies are complete, Transmission Provider determines that additional Network Upgrades are necessary, then Transmission Provider must: (1) specify which additional Network Upgrade costs are based on which studies; and (2) provide a detailed explanation of why the additional Network Upgrades are necessary. Any Interconnection Facility and/or Network Upgrade costs required for safety and reliability also will be borne by the Interconnection Customer. Interconnection Customers may be subject to additional control technologies as well as testing and validation of those technologies consistent with Article 6 of the GIA. The necessary control technologies and protection systems shall be established in Appendix C of the executed, or requested to be filed unexecuted, GIA.

3.2 Identification of Types of Services.

At the time the Interconnection Request is submitted, Interconnection Customer must request NR Interconnection Service, ER Interconnection Service or Surplus Interconnection Service, as described; provided, however, any Interconnection Customer requesting NR Interconnection Service may also request that it be concurrently studied as an ER Interconnection Service, up to the expiration of Interconnection Customer Decision Point II. Interconnection Customer may then elect to proceed with NR Interconnection Service or to proceed under a lower level of NR Interconnection Service to the extent that only certain upgrades will be completed. A description of the modeling details used when studying a project as ER Interconnection Service or NR Interconnection Service can be found in Section 6 of the Generator Interconnection Business Practices Manual (BPM-015). MHVDC Connection Customer may only request Injection Rights pursuant to Section 16 of the GIP and shall not be eligible to receive any Interconnection Services specified in the GIP.

3.2.1 Energy Resource Interconnection Service (ER Interconnection Service).

3.2.1.1 The Product. ER Interconnection Service allows Interconnection Customer to connect the Generating Facility to the Transmission System 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 and may be granted on a conditional basis. ER Interconnection Service does not in and of itself convey any right to deliver electricity to any specific customer or Point of Delivery.

3.2.1.2 The Study. The study consists of short circuit/fault duty, steady state (thermal and voltage) and stability analyses. The short circuit/fault duty analysis would identify the Interconnection Facilities required and the Network Upgrades necessary to address short circuit issues associated with the Interconnection Facilities. The stability and steady state studies

would identify necessary upgrades to allow full output of the proposed Generating Facility and would also identify the maximum allowed output, at the time the study is performed, of the interconnecting Generating Facility without requiring additional Network Upgrades.

3.2.2 Network Resource Interconnection Service (NR Interconnection Service).

3.2.2.1 The Product. Transmission Provider must conduct the necessary studies and Transmission Owner shall cause the construction of the Network Upgrades, System Protection Facilities, Distribution Upgrades or Generator Upgrades, 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. NR Interconnection Service allows the Generating Facility to be designated 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. NR Interconnection Service may be granted on a conditional basis pursuant to the terms of Article 4.1.2.3 of the GIA. A Generating Facility requesting NR Interconnection Service shall be deemed to request ER Interconnection Service of an equivalent amount to the extent that the Generating Facility does not already have ER Interconnection Service in order to allow Interconnection Customer to connect the Generating Facility to the Transmission System or Distribution System, as applicable, and be eligible to deliver the Generating Facility's output. The total NR Interconnection Service shall not exceed the total ER Interconnection for a Generating Facility. Interconnection Customer with an in-service Generating Facility or with an executed GIA, having ER Interconnection Service or equivalent interconnection service can request NR

Interconnection Service by making an Interconnection Request for obtaining only NR Interconnection Service.

3.2.2.2 The Study. The Interconnection Study for NR Interconnection Service shall assure that the Generating Facility meets the requirements for NR Interconnection Service and will qualify the Generating Facility as a Network Resource under Module B and the RAR of the Transmission Provider's Tariff. As a general matter, the Generating Facility's interconnection is studied with the Transmission System at both off-peak and peak loads, under a variety of severely stressed conditions, to determine whether, with the Generating Facility at full output, the aggregate of generation in the local area can be delivered to the aggregate of load on the Transmission System or Distribution System, as applicable, consistent with Applicable Reliability Standards. This approach assumes that some portion of existing Network Resources is displaced by the output of the Generating Facility. NR Interconnection Service does not convey any right to deliver electricity to any specific customer or Point of Delivery.

3.2.3 Surplus Interconnection Service.

3.2.3.1 The Product. Surplus Interconnection Service is restricted 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 total amount of Interconnection Service at the Point of Interconnection. The total combined generating output at the Point of Interconnection for Both the original and surplus Interconnection Customer is limited to and shall not exceed the total amount of Interconnection Service of an Existing Generating Facility. Surplus Interconnection Service does not convey any

right to deliver electricity to any specific customer or Point of Delivery. If the Existing Generating Facility has only ERIS, any Surplus Interconnection Service associated with that Existing Generating Facility at the same Point of Interconnection shall be ERIS. If the Existing Generating Facility has NRIS, any Surplus Interconnection Service associated with that Existing Generating Facility at the same Point of Interconnection could be either ERIS or NRIS.

3.2.3.2 The Study. The Interconnection Study for Surplus Interconnection Service consists of reactive power, short circuit/fault duty, and stability analyses. Steady-state (thermal/voltage) analyses may be performed as necessary to ensure that all required reliability conditions are studied. If the Transmission Provider is unable to verify that the Existing Generating Facility was previously studied for the granted level of Interconnection Service as provided in Section 3.3.1.1(3) of this GIP, the Transmission Provider may perform steady state analyses to demonstrate reliable operation of the Surplus Interconnection Service in accordance with the GIP and Generator Interconnection Business Practice Manual. The Transmission Provider will perform the applicable studies for the Surplus Interconnection Request, pursuant to the provisions set forth in the Generator Interconnection Business Practices Manual, to determine whether the Surplus Interconnection Service proposed in the Surplus Interconnection Request would result in material adverse impact on the Transmission System and/or Affected Systems, as compared to the impacts that are created by the Existing Generating Facility, respecting its dispatch levels from the original steady state interconnection study, without the inclusion of the proposed Surplus Interconnection Service. If no original study is available, the Transmission Provider shall apply the current fuel dispatch assumptions used for new Generating Facilities to the Existing Generating Facility in the steady state study. If Transmission

Provider determines that the proposed Surplus Interconnection Service would result in a material adverse impact on the Transmission System and/or Affected Systems, then the proposed Surplus Interconnection Request is deemed to be a Material Modification and the Interconnection Customer shall proceed through Definitive Planning Phase cycle similar to a request for interconnection of a new Generating Facility or withdraw the Surplus Interconnection Request. The Interconnection Study for the Surplus Interconnection Request will identify the Interconnection Facilities required and the Network Upgrades necessary to address reliability issues associated with the Interconnection Facilities.

3.2.4 Injection Rights

3.2.4.1 The Product. Injection Rights serve as a pre-certification of the Transmission System's capability to receive capacity and energy from the MHVDC Transmission Line at the requested Point of Connection, and in the specified MW quantity, without degrading the reliability of the Transmission System. Injection Rights do not grant Interconnection Service or Transmission Service to the MHVDC Connection Customer. Injection Rights must be converted to external Network Resource Interconnection Service as set forth in Section 16.2 of the GIP before those rights may be used to offer energy or capacity into the MISO markets.

3.2.4.2 The Study. Requests for Injection Rights shall include both ERIS-level and NRIS-level evaluations. For ERIS-level evaluation, the study will include short circuit/fault duty, steady state (thermal and voltage) and stability analyses. The stability and steady state studies would identify necessary upgrades to allow full output of the proposed MHVDC Transmission Line and would also identify the maximum allowed output, at the time the study is performed, of the

interconnecting MHVDC Transmission Line without requiring any additional upgrades.

For NRIS-level evaluation, the study will assure that the output of the MHVDC Transmission Line meets the requirements for NR Interconnection Service and will qualify any Existing Generating Facility connected to the MHVDC Transmission Line as a Network Resource under Module B and the RAR of the Transmission Provider Tariff. As a general matter, such Generating Facility's interconnection with the Transmission System is studied at both off-peak and peak loads, under a variety of severely stressed conditions, to determine whether, with such Generating Facility at full output, the aggregate of generation in the local area can be delivered to the aggregate of load on the Transmission System or Distribution System, as applicable, consistent with Applicable Reliability Standards. This approach assumes that some portion of an existing Network Resource is displaced by the output of such Generating Facility.

3.3 Valid Interconnection Request.

3.3.1 Initiating an Interconnection Request.

An Interconnection Customer or an MHVDC Connection Customer wishing to join the next Definitive Planning Phase shall submit their Interconnection Request to the Transmission Provider in the manner required by the Generator Interconnection Business Practices Manual (BPM-015) no later than the application deadline, which will be at least ninety (90) Calendar Days prior to the scheduled kick-off of the Definitive Planning Phase I of that cycle, published on the MISO public website. Any Interconnection Request received after the application deadline published on the MISO public website shall be applied towards the following Definitive Planning Phase cycle. A Provisional Generator Interconnection Agreement may be requested as set forth in Section 7.9 of the GIP.

Definitive Planning Phase study deposits are required based on the Megawatt amount of the new Interconnection Service requested per the following schedule:

Amount of new Interconnection Service and/or Injection Rights requested (MW)	Non-Refundable Deposit 1 (D1)	Study Deposit 2 (D2)
< 6 MW	\$5,000	\$50,000
$20 \geq MW \geq 6$	\$5,000	\$120,000
$50 \geq MW > 20$	\$5,000	\$180,000
$100 \geq MW > 50$	\$5,000	\$270,000
$200 \geq MW > 100$	\$5,000	\$320,000
$500 \geq MW > 200$	\$5,000	\$420,000
$1000 > MW > 500$	\$5,000	\$530,000
$MW \geq 1000$	\$5,000	\$640,000

An Interconnection Request for a Replacement Generating Facility and/or Surplus Interconnection Service shall be accompanied by a study deposit in the amount of \$60,000.

Thirty (30) Calendar Days after the execution of a non-Provisional Generator Interconnection Agreement or a Transmission Connection Agreement in which the Injection Rights option has been selected, Interconnection Customer or MHVDC Connection Customer may replace any non-encumbered balance of the study deposits with an irrevocable letter of credit reasonably acceptable to Transmission Provider.

Interconnection Customer or MHVDC Connection Customer shall be required to provide to Transmission Provider the following data as further described in the Generator Interconnection Business Practices Manual (BPM-015) along with its Interconnection Request:

- (i) a detailed stability model for the proposed Generating Facility or MHVDC Transmission Line;
- (ii) a detailed power flow model for the proposed Generating Facility or MHVDC Transmission Line;
- (iii) Technical data as outlined in Attachment A of Appendix 1 of this GIP;
- (iv) an Interconnection Study Agreement executed by Interconnection Customer or MHVDC Connection Customer in the form of Appendix 1, Attachment B;
- (v) a definitive Point of Interconnection or Point of Connection;
- (vi) for Interconnection Requests proposing to share Interconnection Customer Interconnection Facilities with another pending Interconnection Request or existing project, a consent agreement in accordance with Section 3.3.1.4 of these Generator Interconnection Procedures;
- (vii) a one line diagram showing the Generating Facility or MHVDC Transmission Line and associated electrical equipment with appropriate rating and impedance information; and
- (viii) Megawatt amount of new Interconnection Service or Injection Rights requested.

In addition, Interconnection Customer or MHVDC Connection Customer proposing to enter the Definitive Planning Phase shall provide the Definitive Planning Phase entry milestone in the form of either cash or irrevocable letter of credit reasonably acceptable to Transmission Provider.

The Definitive Planning Phase entry milestone (M2) will be calculated as \$4,000 per Megawatt amount of new Interconnection Service or Injection Rights requested.

Except as otherwise provided for Site Control in Section 7.2 of this GIP, all applicable deposits, milestone payments, and data required to enter the Definitive Planning Phase

must be received no later than the application deadline published on the Transmission Provider website.

Interconnection Customer shall provide proof of Site Control or a cash deposit in lieu of Site Control in accordance with the requirements and timing established in Section 7.2 of this GIP. In the event that an Interconnection Customer or MHVDC Connection Customer has a state regulatory requirement to process two Points of Interconnection or Points of Connection through the entire process, that Interconnection Customer or MHVDC Connection Customer is not required to comply with the Site Control requirements in Section 7.2 for the second Interconnection Request, provided it is properly identified as the required alternative.

Deposits shall be applied toward any Interconnection Studies pursuant to the Interconnection Request.

The expected In-Service Date of the Generating Facility or MHVDC Transmission Line shall be no later than the process window for the Transmission Provider's regional expansion planning period not to exceed seven years from the date the Interconnection Request is received by Transmission Provider, unless Interconnection Customer or MHVDC Connection Customer demonstrates that engineering, permitting and construction of the Generating Facility or MHVDC Transmission Line will take longer than the regional expansion planning period, nor shall it be any sooner than the process time described in the Generator Interconnection Procedures and confirmed in the Pre-Queue Phase. The In-Service Date may succeed the date the Interconnection Request is received by Transmission Provider by a period up to ten years, or longer where Interconnection Customer or MHVDC Connection Customer and Transmission Provider agree, such agreement not to be unreasonably withheld.

The expected Commercial Operation Date of a Replacement Generating Facility shall be no more than three (3) years from the date of cessation of operation of the Existing

Generating Facility. For Existing Generating Facilities that have not yet reached Commercial Operation, the specified Commercial Operation Date in the GIA of a Replacement Generating Facility shall be no later than the specified Commercial Operation Date in the GIA of the Existing Generating Facility. For Existing Generating Facility that is in suspension pursuant to Section 38.2.7 of the Tariff or in Forced Outage, the start date of suspension or outage shall be considered the date of cessation of operation of the Existing Generating Facility for purposes of calculating the three (3) year limit. If the requested period of time between the cessation of operation of the Existing Generating Facility and expected Commercial Operation Date of the Replacement Generating Facility is more than three (3) years, the request shall be treated as an Interconnection Request for a new Generating Facility.

3.3.1.1 Additional Requirements for a Surplus Interconnection Request application

A request for Surplus Interconnection Service made by an Interconnection Customer must meet the requirements listed in section 3.3.1 above, plus the following requirements:

1. The Interconnection Customer of the Existing Generating Facility, or one of its affiliates, shall have priority to utilize Surplus Interconnection Service. If the Interconnection Customer of the Existing Generating Facility or one of its affiliates does not exercise its priority, then the Interconnection Customer may make Surplus Interconnection Service available to other potential Interconnection Customers.
2. The Surplus Interconnection Request shall be accompanied by written confirmation from an officer of the Interconnection Customer of the Generating Facility from which Surplus Interconnection Service will be obtained, indicating: (i) the amount of Surplus Interconnection Service

made available by the Interconnection Customer of the Generating Facility from which Surplus Interconnection Service will be obtained; (ii) the type of Interconnection Service (*i.e.*, ERIS or NRIS) made available by the Interconnection Customer of the Generating Facility from which Surplus Interconnection Service will be obtained in accordance with the provisions of Section 3.2.3.1 of this GIP; (iii) the circumstances under which the proposed Surplus Interconnection Service would be available, including an indication of whether the proposed Interconnection Service would be available on a continuous basis (*i.e.*, a certain number of MW of Surplus Interconnection Service would always be available for use by a co-located generating facility) or on a scheduled, periodic basis (*i.e.*, a specified number of MW of Surplus Interconnection Service that would be available intermittently).

3. Except as provided in Section 3.3.1.1(3)(a) of this Attachment X, the Interconnection Customer must include the MISO Interconnection System Impact Study performed for the Existing Generating Facility when the Generating Facility was originally proposed for interconnection to the MISO Transmission System or, for Generating Facilities studied under a predecessor transmission provider's interconnection process, the original system impact study performed at the time such Generating Facility was originally studied for interconnection to the transmission system. Transmission Provider will use that study to appropriately scope the study for evaluation of the Surplus Interconnection Request. If the Interconnection Customer cannot provide such system impact study with its application, it shall indicate that such study is not available.
 - a. A Request for Surplus Interconnection Service may be submitted by an Interconnection Customer prior to the date that the Generating Facility from which such Interconnection Customer

will take Surplus Interconnection Service has obtained an effective Generator Interconnection Agreement provided the following requirements are met:

1. The Generating Facility from which the Surplus Interconnection Customer will take Surplus Interconnection Service has a valid Interconnection Request the has completed Interconnection Customer Decision Point II of the GIP prior to the date that the Surplus Interconnection Request is submitted;
2. The Surplus Interconnection Request satisfies each of the requirements of Section 3.3.1.1 of this GIP except that instead of providing the MISO Interconnection System Impact Study for an Existing Generating Facility specified by Section 3.3.1.1(3), the Surplus Interconnection Customer shall provide the most recently completed Interconnection System Impact Study in the form of the Revised System Impact Study for Definitive Planning Phase II or the Final System Impact Study for Definitive Planning Phase III for the Generating Facility from which Surplus Interconnection Service is to obtained with the Surplus Interconnection Request;
3. The Surplus Interconnection Customer identifies the study cycle and project number of the Generating Facility from which it will take Surplus Interconnection Service in the Surplus Interconnection Request; and
4. If sharing Interconnection Customer Interconnection Facilities with the Existing Generating Facility, evidence that the Interconnection Customer has entered into a consent agreement that meets the requirements of Section

3.3.1.4.

The Transmission Provider shall commence processing and studying a Surplus Interconnection Request that conforms to the requirements of this Section 3.3.1.1(3)(a) of the GIP in accordance with the provision of Section 3.3.1.2 of this GIP provided that no GIA may be tendered for such Surplus Interconnection Request prior to the date that the Generating Facility from which such Interconnection Customer will take Surplus Interconnection Service has become subject to an effective Generator Interconnection Agreement.

3.3.1.2 Evaluation Process for Surplus Interconnection Request and the Requirements for the Request to Remain Valid

The following conditions will apply for evaluation of Surplus Interconnection Request:

1. Within thirty (30) Calendar Days of the Transmission Provider's receipt of the completed Surplus Interconnection Request, Transmission Provider will commence a study of the proposed Surplus Interconnection Service pursuant to Section 3.2.3.2 of this GIP to determine whether such service would result in any material adverse impact to the Transmission System and/or Affected Systems and amounts to a Material Modification. Transmission Provider shall use Reasonable Efforts to complete the study of the Surplus Interconnection Request within ninety (90) Calendar Days. If Transmission Provider determines that the Surplus Interconnection Request would result in a material adverse impact to the Transmission System and/or Affected Systems, then the Surplus Interconnection Request shall proceed through the Definitive Planning Phase as a new Interconnection Request.

2. Within thirty (30) Calendar Days after having received results of the Transmission Provider's evaluation, Interconnection Customer requesting Surplus Interconnection Service shall inform Transmission Provider of its election to proceed with its Surplus Interconnection Request. After receiving the Interconnection Customer's election notice, Transmission Provider will initiate an Interconnection Facilities Study or tender a draft GIA, as appropriate. If the Interconnection Customer fails to provide a notice of its election to proceed within thirty (30) Calendar Days after having received results of the Transmission Provider's evaluation, the Transmission Provider will deem the Interconnection Request withdrawn pursuant to Section 3.6 of this GIP.

The Interconnection Facilities Study will be performed, if needed, and will be completed within ninety (90) Calendar Days. If an Interconnection Facilities Study is necessary, the Transmission Provider shall tender a draft *pro forma* GIA within the later of thirty (30) Calendar Days after final Interconnection Facilities Study reports are issued or the date that the GIA for the Generating Facility from which the Surplus Interconnection Customer will take Surplus Interconnection Service becomes effective. If an Interconnection Facilities Study is not necessary, the Transmission Provider shall tender a draft *pro forma* GIA or an amended GIA that conforms to the currently effective *pro forma* GIA, as applicable by the later of thirty (30) Calendar Days after the Interconnection Customer communicates its election to proceed with Surplus Interconnection Service request, or the date that the GIA for the Generating Facility from which the Surplus Interconnection Customers will take Surplus Interconnection Service becomes effective.

Interconnection Customer shall submit an executed Energy Displacement Agreement and Monitoring and Consent Assignment to the Transmission

Provider prior to the conclusion of negotiations for the associated GIA, pursuant to Section 11 of this GIP. The executed Monitoring and Consent Agreement shall be in the form of Appendix 11 of the GIP to be effective upon execution of a GIA and must remain in effect during the term of the GIA.

The executed Energy Displacement Agreement shall be in the form of Appendix 12 of the GIP to be effective upon execution of a GIA and must remain in effect during the term of the GIA. If the Interconnection Customer fails to provide an executed Energy Displacement Agreement and a Monitoring and Consent Agreement to the Transmission Provider prior to the conclusion of negotiations for the associated GIA, the Transmission Provider will deem the Interconnection Request withdrawn pursuant to Section 3.6 of this GIP

If at any time prior to execution of the GIA the Energy Displacement Agreement or Monitoring and Consent Agreement required above is no longer in effect, the Interconnection Request for Surplus Interconnection Service shall be deemed to have been withdrawn.

3.3.1.3 Requirements for continuation of Surplus Interconnection Service after retirement or cessation of commercial operation of an Existing Generating Facility

1. In the event that the Interconnection Customer seeks to continue Surplus Interconnection Service following the retirement and permanent cessation of commercial operation of the Existing Generating Facility associated with that Surplus Interconnection Service, Transmission Provider shall permit the Surplus Interconnection Service to continue for a limited period not to exceed one (1) year if the Existing Generating Facility retired

unexpectedly and if the following conditions are met:

- (i) Transmission Provider studied the Surplus Interconnection Service Generating Facility for sole operation at that Point of Interconnection as a part of Interconnection Study for the Surplus Interconnection Service Generating Facility, and such studies confirm that the Surplus Interconnection Service Generating Facility can be solely and reliably operated after the retirement of the Existing Generating Facility; and
- (ii) The Existing Generating Facility Interconnection Customer must provide written consent to the continued operation of the Surplus Interconnection Service Generating Facility at either: (a) the limited level of Surplus Interconnection Service that is reflected in the Surplus Interconnection Service Generating Facility's Generator Interconnection Agreement; or (b) at any level below such limit.

3.3.1.4 Additional Requirements for Interconnection Requests Proposing to Share Interconnection Customer Interconnection Facilities

Interconnection Customer may submit an Interconnection Request that proposes to share Interconnection Customer Interconnection Facilities with one or more existing projects or pending Interconnection Requests. Interconnection Requests proposing such an arrangement shall so indicate in their Interconnection Request and attach a consent agreement executed by all Interconnection Customers with projects that propose to connect, or are connected, to the shared Interconnection Customer Interconnection Facilities. After an Interconnection Request has been submitted, an Interconnection Customer may only propose to share Interconnection Customer Interconnection Facilities as part of a Point of

Interconnection modification. Such consent agreement shall, in accordance with the Business Practices Manuals, describe the proposed configuration of the projects, the proposed ownership of the Interconnection Customer Interconnection Facilities, the division of rights and responsibilities among the parties with respect to operations, maintenance, and repair of the Interconnection Customer Interconnection Facilities, and such other information regarding the operation of the Generating Facilities under this arrangement as may be specified in the Generator Interconnection Business Practice Manual. The consent agreement shall indicate the parties' consent to sharing the Interconnection Customer Interconnection Facilities in the manner described in the Interconnection Request(s).

3.3.1.5 Evaluation Process for Interconnection Requests Proposing to Share Interconnection Customer Interconnection Facilities

Interconnection Requests proposing shared Interconnection Customer Interconnection Facilities shall require the consent of the Transmission Provider to proceed, which consent shall not be unreasonably withheld, conditioned, or delayed. The Transmission Provider shall review Interconnection Requests proposing to share Interconnection Customer Interconnection Facilities amongst multiple projects to confirm compliance with the requirements of Section 3.3.1.4 of these Generator Interconnection Procedures, that all Interconnection Customer responsibilities have been appropriately accounted for, and that all parties have consented to the described arrangement. The Transmission Provider shall complete this review and notify the parties whether the Transmission Provider consents to the proposed arrangement no later than five (5) days prior to the start of the Scoping Meeting in which their requests are discussed, or within ten (10) Business Days after receipt if the consent agreement is submitted as part of a Point of Interconnection modification. In the event that the Transmission Provider does not consent, the Transmission Provider shall provide a written

statement of the reasons for such decision to each of the parties. Interconnection Requests that do not receive the Transmission Provider's consent for the sharing of Interconnection Customer Interconnection Facilities may be revised and resubmitted for inclusion in the applicable cycle prior to the start of DPP Phase I. In the event that the consent agreement is submitted as part of a Point of Interconnection modification, the consent for the sharing of Interconnection Customer Interconnection Facilities may be revised and resubmitted within five (5) Business Days of receiving the Transmission Provider's written statement of reasons.

Any Interconnection Customer that has an Interconnection Request pending in the DPP as of August 14, 2019 and that intends to share Interconnection Customer Interconnection Facilities for that Interconnection Request with one or more existing projects or other Interconnection Requests shall satisfy each of the terms of Sections 3.3.1.4 and 3.3.1.5 of these Generator Interconnection Procedures, prior to the start of GIA negotiations for any Interconnection Request that remains pending in the DPP and that will participate in the sharing arrangement.

3.3.2 Acknowledgment of Interconnection Request.

Transmission Provider shall acknowledge receipt of the Interconnection Request within five (5) Business Days of receipt of the Interconnection Request. Transmission Provider shall tender to Interconnection Customer or MHVDC Connection Customer a copy of the countersigned Interconnection Study Agreement within ten (10) Business Days after the Transmission Provider notifies Interconnection Customer that it has accepted the Interconnection Request as valid pursuant to Section 3.3.3 of this GIP. In addition, within ten (10) Business Days after notifying Interconnection Customer that an Interconnection Request is accepted as valid, Transmission Provider shall submit a summary of the Interconnection Request to Interconnection Customer or MHVDC Connection Customer and likely affected Transmission Owners. All acknowledgments and other communications may be made via e-mail and/or other electronic means.

3.3.3 Review of Interconnection Request and Cure of Deficiencies.

An Interconnection Request will not be considered to be a valid request until all items in Section 3.3.1 have been received by Transmission Provider. If an Interconnection Request fails to meet the requirements set forth in Section 3.3.1, Transmission Provider shall notify Interconnection Customer or MHVDC Connection Customer within fifteen (15) Business Days of receipt of the initial Interconnection Request either that the Transmission Provider has accepted the Interconnection Request as valid or has determined that the Interconnection Request does not constitute a valid request due to one or more deficiencies. In the event Transmission Provider determines that the Interconnection Request does not constitute a valid request, Transmission Provider shall also provide an explanation of the reasons for such determination. Interconnection Customer shall have ten (10) Business Days from the date that the Transmission Provider identifies the Interconnection Request as deficient to provide the additional requested information needed to constitute a valid request. In the event Transmission Provider discovers or verifies a deficiency later in the GIP process, Transmission Provider will notify Interconnection Customer or MHVDC Connection Customer as soon as practicable. Interconnection Customer or MHVDC Connection Customer shall provide Transmission Provider the additional requested information needed to constitute a valid request no later than ten (10) Business Days after the request is made. Failure by Interconnection Customer or MHVDC Connection Customer to comply with this Section 3.3.3 will result in the Interconnection Request not being processed until such deficiency is cured. In the event that the deficiency is not cured within the required ten (10) business day period, the Interconnection Request shall immediately be deemed withdrawn as of the date of such deadline without any further cure period. The Transmission Provider shall provide written notice to Interconnection Customer or MHVDC Connection Customer of the deemed withdrawal and an explanation of the reasons for such deemed withdrawal upon the expiration of the ten (10) business day period. Any refunds of deposits will be processed in accordance with Section 3.6 of this GIP.

3.3.4 Scoping Meeting.

The Transmission Provider shall establish a date agreeable to Interconnection Customer and Transmission Owner for a Scoping Meeting, and such date shall be at least five (5) Business Days prior to and no more than forty-five (45) Calendar days prior to the kick-off of the Definitive Planning Phase, unless otherwise mutually agreed upon by Transmission Provider, Transmission Owner and Interconnection Customer or MHVDC Connection Customer. The Transmission Provider, Interconnection Customer, or MHVDC Connection Customer, and Transmission Owner must attend the Scoping Meeting. Transmission Provider shall use Reasonable Efforts to include any other Affected System Operators in the Scoping Meeting.

The purpose of the Scoping Meeting shall be to discuss alternative interconnection options, to exchange information including any transmission data that would reasonably be expected to impact such interconnection options, to analyze such information and to determine the potential feasible Points of Interconnection. Transmission Provider, Transmission Owner and Interconnection Customer or MHVDC Connection Customer will bring to the meeting such technical data including, but not limited to, known: (i) general facility loadings, (ii) general instability issues, (iii) general short circuit issues, (iv) general voltage issues including voltage and frequency ride-through capabilities for the Generating Facility, (v) general power quality issues including voltage flicker, harmonics, (vi) general reliability issues; and (vii) diagrams and/or layout of applicable substations as may be reasonably required to accomplish the purpose of the meeting. Transmission Provider and Interconnection Customer or MHVDC Connection Customer will also bring to the meeting personnel and other resources as may be reasonably required to accomplish the purpose of the meeting in the time allocated for the meeting. On the basis of the meeting, Interconnection Customer or MHVDC Connection Customer may modify its Point of Interconnection/Connection and one or more available alternative Point(s) of Interconnection/Connection. Interconnection Customer or MHVDC Connection Customer will have until the beginning of DPP Phase I submit to

Transmission Provider its modified Point of Interconnection/Connection or one of its alternative Point(s) of Interconnection/Connection as a result of the Scoping Meeting; if the modified Point of Interconnection includes shared Interconnection Customer Interconnection Facilities, the Interconnection Customer shall submit a consent agreement that meets requirements of Section 3.3.1.4 by the beginning of DPP Phase I. The duration of the meeting shall be sufficient to accomplish its purpose.

3.4 OASIS Posting.

3.4.1 Transmission Provider will maintain on its OASIS or its website a list of all Interconnection Requests. If Transmission Provider posts this information on its website, a link to the information must be provided on Transmission Provider's OASIS site. The list will identify, for each Interconnection Request: (i) the maximum summer and winter megawatt electrical output; (ii) the location by county and state; (iii) the station or transmission line or lines where the interconnection will be made; (iv) the projected In-Service Date; (v) the status of the Interconnection Request, and when applicable, Definitive Planning Phase Queue Position; (vi) the type of Interconnection Service being requested or whether the Interconnection Request is for Injection Rights; (vii) the availability of any studies related to the Interconnection Request; (viii) the date of the Interconnection Request; (ix) the type of Generating Facility to be constructed including technology and fuel type); (x) for Interconnection Requests that have not resulted in a completed interconnection, an explanation as to why it was not completed; (xi) associated Interconnection System Impact Study phase costs by Definitive Planning Phase; and (xii) for a Generating Facility Replacement, the planned date of cessation of operation for the Existing Generating Facility or actual date if the Existing Generating Facility already has ceased commercial operations, the expected Commercial Operation Date of the replacement facility and requested Interconnection Service. The list will not disclose the identity of Interconnection Customer or MHVDC Connection Customer until Interconnection Customer or MHVDC Connection Customer executes a GIA or a TCA or requests that Transmission Provider file an unexecuted GIA or TCA with FERC. Transmission Provider shall post to its OASIS site or its website any deviations from the

study timelines set forth herein. Interconnection Study reports shall be posted to the Transmission Provider's OASIS site or its website prior to the meeting between Interconnection Customer and Transmission Provider to discuss the applicable study results. Transmission Provider shall also post any known deviations in the Generating Facility's In-Service Date.

Transmission Provider will also maintain on its OASIS or its website a Transmission Owner's general non-binding indication as to whether the Transmission Owner intends to elect to fund the capital costs (self-fund) for Network Upgrades and System Protection Facilities. If Transmission Provider posts this information on its website, a link to the information must be provided on Transmission Provider's OASIS site.

3.4.2 Transmission Provider will maintain on its OASIS or its website summary statistics related to processing Interconnection Studies pursuant to Interconnection Requests, updated quarterly. If Transmission Provider posts this information on its website, a link to the information must be provided on Transmission Provider's OASIS site. For each calendar quarter, Transmission Providers must calculate and post the information detailed in sections 3.4.2.1 through 3.4.2.6. For the Study Metrics provided in Sections 3.4.2.2 and 3.4.2.3, if the relevant 10 Business Days includes one or more holidays, then the number of Business Days will be correspondingly extended and the study will not be considered untimely if completed within the extended period.

3.4.2.1 Preliminary System Impact Studies in Definitive Planning Phase I Processing Time.

- (A) Number of Interconnection Requests that had Preliminary System Impact Studies in Definitive Planning Phase I completed within Transmission Provider's coordinated region during the reporting quarter,
- (B) Number of Interconnection Requests that had Preliminary System Impact Studies in Definitive Planning Phase I completed within Transmission

Provider's coordinated region during the reporting quarter that were completed more than the sum of 10 Business Days for Model Review and 65 Calendar Days for the Preliminary System Impact Study, as per the timelines listed in 7.3.1 of the Generator Interconnection Procedures ("GIP") after the periodic, scheduled start of the Definitive Planning Phase I, which shall commence in conformity with Section 3.3.1 of the GIP,

- (C) At the end of the reporting quarter, the number of active valid Interconnection Requests with ongoing incomplete Preliminary System Impact Studies in Definitive Planning Phase I exceeding the sum of 10 Business Days for Model Review and 65 Calendar Days for the Preliminary System Impact Study as per the timelines listed in 7.3.1 of the GIP, after the periodic, scheduled start of the Definitive Planning Phase I,
- (D) Mean time (in Calendar Days), for Preliminary System Impact Studies in Definitive Planning Phase I completed within Transmission Provider's coordinated region during the reporting quarter, from the periodic, scheduled start of the Definitive Planning Phase I, to the date when Transmission Provider provided the completed Preliminary System Impact Study to the Interconnection Customer,
- (E) Percentage of Interconnection Requests with Preliminary System Impact Studies in Definitive Planning Phase I exceeding the sum of 10 Business Days for Model Review and 65 Calendar Days for the Preliminary System Impact Study to complete this reporting quarter, calculated as the sum of 3.4.2.1(B) plus 3.4.2.1(C) divided by the sum of 3.4.2.1(A) plus 3.4.2.1(C)).

3.4.2.2 Revised System Impact Studies in Definitive Planning Phase II Processing Time.

- (A) Number of Interconnection Requests that had Revised System Impact Studies in Definitive Planning Phase II completed within Transmission Provider's coordinated region during the reporting quarter,
- (B) Number of Interconnection Requests that had Revised System Impact Studies in Definitive Planning Phase II completed within Transmission Provider's coordinated region during the reporting quarter that were completed more than the sum of 6 Business Days for Model Review and 75 Calendar Days for the Revised System Impact Study after the date the Interconnection Customer Decision Point I window expired, as per the timelines listed in Section 7.3.2 of the GIP,
- (C) At the end of the reporting quarter, the number of active valid Interconnection Requests with ongoing incomplete Revised System Impact Studies in Definitive Planning Phase II exceeding the sum of 6 Business Days for Model Review and 75 Calendar Days for the Revised System Impact Study, as per the timelines listed in 7.3.2 of the GIP, after the Interconnection Customer Decision Point I window expired,
- (D) Mean time (in Calendar Days), for Revised System Impact Studies in Definitive Planning Phase II completed within Transmission Provider's coordinated region during the reporting quarter, from the day after the Interconnection Customer Decision Point I window expired to the date when Transmission Provider provided the completed Revised System Impact Study to the Interconnection Customer,
- (E) Percentage of Interconnection Requests with Revised System Impact Studies in Definitive Planning Phase II exceeding the sum of 6 Business Days for Model Review and 75 Calendar Days for the Revised System Impact Study, to complete this reporting quarter, calculated as the sum of 3.4.2.2(B) plus 3.4.2.2(C) divided by the sum of 3.4.2.2(A) plus 3.4.2.2(C)).

3.4.2.3 Final System Impact Studies in Definitive Planning Phase III

Processing Time.

- (A) Number of Interconnection Requests that had Final System Impact Studies in Definitive Planning Phase III completed within Transmission Provider's coordinated region during the reporting quarter,
- (B) Number of Interconnection Requests that had Final System Impact Studies in Definitive Planning Phase III completed within Transmission Provider's coordinated region during the reporting quarter that were completed more than the sum of 6 Business Days for Model Review and 50 Calendar Days as per the timelines listed in 7.3.3 of the GIP, after the Interconnection Customer Decision Point II window expired,
- (C) At the end of the reporting quarter, the number of active valid Interconnection Requests with ongoing incomplete Final System Impact Studies in Definitive Planning Phase III exceeding the sum of 6 Business Days for Model Review and 50 Calendar Days, as per the timelines listed in 7.3.3 of the GIP, after the Interconnection Customer Decision Point II window expired,
- (D) Mean time (in Calendar Days), for Final System Impact Studies in Definitive Planning Phase III completed within Transmission Provider's coordinated region during the reporting quarter, from the day after the Interconnection Customer Decision Point II window expired to the date when Transmission Provider provided the completed Final System Impact Study to the Interconnection Customer,
- (E) Percentage of Interconnection Requests with Final System Impact Studies in Definitive Planning Phase III exceeding the sum of 6 Business Days for Model Review and 50 Calendar Days to complete this reporting quarter, calculated as the sum of 3.4.2.3(B) plus 3.4.2.3(C) divided by the sum of 3.4.2.3(A) plus 3.4.2.3(C).

3.4.2.4 Interconnection Facilities Studies Processing Time.

- (A) Number of Interconnection Requests that had Interconnection Facilities Studies for Interconnection Facilities or Connection Facilities that are completed within Transmission Provider's coordinated region during the reporting quarter,
- (B) Number of Interconnection Requests that had Interconnection Facilities Studies for Interconnection Facilities or Connection Facilities that are completed within Transmission Provider's coordinated region during the reporting quarter that were completed more than 90 Calendar Days after the Interconnection Customer Decision Point I window expired,
- (C) At the end of the reporting quarter, the number of active valid Interconnection Requests with ongoing incomplete Interconnection Facilities Studies for Interconnection Facilities or Connection Facilities where such Interconnection Requests had exceeded more than 90 Calendar Days,
- (D) Mean time (in Calendar Days), for Interconnection Facilities Studies for Interconnection Facilities or Connection Facilities completed within Transmission Provider's coordinated region during the reporting quarter, calculated from the day after the Interconnection Customer Decision Point I window expired to the date when Transmission Provider provided the completed Interconnection Facilities Study for Interconnection Facilities or Connection Facilities to the Interconnection Customer,
- (E) Percentage of Interconnection Requests with delayed Interconnection Facilities Studies for Interconnection Facilities or Connection Facilities this reporting quarter, calculated as the sum of 3.4.2.4(B) plus 3.4.2.4(C) divided by the sum of 3.4.2.4(A) plus 3.4.2.4(C).

3.4.2.5 Interconnection Facilities Studies for Network Upgrades Processing Time.

- (A) Number of Interconnection Requests that had Interconnection Facilities Studies for Network Upgrades that are completed within Transmission Provider's coordinated region during the reporting quarter,
- (B) Number of Interconnection Requests that had Interconnection Facilities Studies for Network Upgrades that are completed within Transmission Provider's coordinated region during the reporting quarter that were completed more than 90 Calendar Days after completion of the Definitive Planning Phase III Final System Impact Study,
- (C) At the end of the reporting quarter, the number of active valid Interconnection Requests with ongoing incomplete Interconnection Facilities Studies for Network Upgrades where such Interconnection Requests had exceeded more than 90 Calendar Days,
- (D) Mean time (in Calendar Days), for Interconnection Facilities Studies for Network Upgrades completed within Transmission Provider's coordinated region during the reporting quarter, calculated from the day after completion of the Definitive Planning Phase III Final System Impact Study to the date when Transmission Provider provided the completed Interconnection Facilities Study for Network Upgrades to the Interconnection Customer,
- (E) Percentage of Interconnection Requests with delayed Interconnection Facilities Studies for Network Upgrades this reporting quarter, calculated as the sum of 3.4.2.5(B) plus 3.4.2.5(C) divided by the sum of 3.4.2.5(A) plus 3.4.2.5(C).

3.4.2.6 Interconnection Requests Withdrawn from Interconnection Queue.

- (A) Number of Interconnection Requests withdrawn from Transmission Provider's interconnection queue during the reporting quarter,

- (B) Number of Interconnection Requests withdrawn from Transmission Provider's interconnection queue during the reporting quarter before the start of the Definitive Planning Phase I, pursuant to Section 3.3.1 of the GIP,
- (C) Number of Interconnection Requests withdrawn from Transmission Provider's interconnection queue during the reporting quarter from start of the Definitive Planning Phase I, pursuant to Section 3.3.1 of the GIP, to at or before the Interconnection Customer Decision Point I window expired,
- (D) Number of Interconnection Requests withdrawn from Transmission Provider's interconnection queue during the reporting quarter after the Interconnection Customer Decision Point I window expired to at or before the Interconnection Customer Decision Point II window expired,
- (E) Number of Interconnection Requests withdrawn from Transmission Provider's interconnection queue during the reporting quarter after the Interconnection Customer Decision Point II window expired to before execution of a Generator Interconnection Agreement or Interconnection Customer requests the filing of an unexecuted, new interconnection agreement
- (F) Number of Interconnection Requests withdrawn from Transmission Provider's interconnection queue after execution of a Generator Interconnection Agreement or Interconnection Customer requests the filing of an unexecuted, new interconnection agreement,
- (G) Mean time (in Calendar Days), for all withdrawn Interconnection Requests, from the date when the request was determined to be valid to when Transmission Provider received the request to withdraw from the queue.

3.4.3 Transmission Provider is required to post on OASIS or its website the measures in paragraph 3.4.2.1(A) through paragraph 3.4.2.6(G) for each calendar quarter within 30 Calendar Days of the end of the calendar quarter. Transmission Provider will keep the

quarterly measures posted on OASIS or its website for three calendar years with the first required report to be in the first quarter of 2020. If Transmission Provider retains this information on its website, a link to the information must be provided on Transmission Provider's OASIS site.

3.4.4 In the event that any of the values calculated in paragraphs 3.4.2.1(E), 3.4.2.2(E), 3.4.2.3(E), 3.4.2.4(E), or 3.4.2.5(E) exceeds 25 percent for two consecutive calendar quarters, Transmission Provider will have to comply with the measures below for the next four consecutive calendar quarters and must continue reporting this information until Transmission Provider reports four consecutive calendar quarters without the values calculated in 3.4.2.1(E), 3.4.2.2(E), 3.4.2.3(E), 3.4.2.4(E), or 3.4.2.5(E)) exceeding 25 percent for two consecutive calendar quarters:

- (i) Transmission Provider must submit a report to the Commission describing the reason for each study or group of clustered studies pursuant to an Interconnection Request that exceeded its deadline for completion (excluding any allowance for Reasonable Efforts). Transmission Provider must describe the reasons for each study delay and any steps taken to remedy these specific issues and, if applicable, prevent such delays in the future. The report must be filed at the Commission within 45 Calendar Days of the end of the calendar quarter.
- (ii) Transmission Provider shall aggregate the total number of employee-hours and third party consultant hours expended towards interconnection studies within its coordinated region that quarter and post on OASIS or its website. If Transmission Provider posts this information on its website, a link to the information must be provided on Transmission Provider's OASIS site. This information is to be posted within 30 Calendar Days of the end of the calendar quarter.

3.5 Coordination with Affected Systems.

Interconnection Customer or MHVDC Connection Customer, Transmission Provider,

Transmission Owner and Affected System Operator shall each coordinate and cooperate on studies required to determine the impact of the Interconnection Request on Affected Systems. Transmission Provider will include such Affected System Operators, whose representatives either abide by FERC's Standards of Conduct pursuant to 18 C.F.R. Parts 37 and 358 or have executed a non-disclosure agreement with Transmission Provider, in all meetings held with Interconnection Customer as required by the GIP. If the Affected System is not under the functional control of Transmission Provider, the Affected System Operator's procedures shall be applicable. Interconnection Customer or MHVDC Connection Customer will be separately responsible to adhere to the Affected Systems Operator's procedures and costs related to studies and modifications to the Affected System.

Interconnection Customer or MHVDC Connection Customer will cooperate with Transmission Provider in all matters related to the conduct of studies and the determination of modifications to Affected Systems. Transmission Provider may limit Interconnection Service or Injection Rights for an Interconnection Request until needed reliability upgrades on an Affected System(s) are complete under separate agreements. Each Interconnection Customer or MHVDC Connection Customer shall provide notice to Transmission Owner and Transmission Provider that the facilities built under such agreements are in service.

3.6 Withdrawal.

Interconnection Customer or MHVDC Connection Customer may withdraw its Interconnection Request at any time by written notice of such withdrawal to Transmission Provider. In addition, if Interconnection Customer fails to adhere to all requirements of the GIP, except as provided in Section 13.5 (Disputes), Transmission Provider shall deem the Interconnection Request to be withdrawn and shall provide written notice to Interconnection Customer or MHVDC Connection Customer of the deemed withdrawal and an explanation of the reasons for such deemed withdrawal. Unless otherwise provided in this GIP, upon receipt of such written notice,

Interconnection Customer or MHVDC Connection Customer shall have fifteen (15) Business Days in which to either respond with information or actions that cure the deficiency or to notify Transmission Provider of its intent to pursue Dispute Resolution.

In the event that an MHVDC Transmission Connection Request is withdrawn or deemed withdrawn in accordance with the terms of Attachment GGG to the Tariff, then all Interconnection Requests associated with that MHVDC Transmission Connection Request will also be deemed withdrawn.

Withdrawal prior to or during Interconnection Customer Decision Point I shall result in the loss of the Interconnection Customer's or MHVDC Connection Customer's Definitive Planning Phase Queue Position. Withdrawal after Interconnection Customer Decision Point I, but prior to or during Interconnection Customer Decision Point II shall result in the loss of the Interconnection Customer's or MHVDC Connection Customer's Definitive Planning Phase Queue Position and forfeiture of the Definitive Planning Phase entry milestone (M2) payment. Withdrawal after Interconnection Customer Decision Point II shall result in the loss of Interconnection Customer's or MHVDC Connection Customer's Definitive Planning Phase Queue Position and forfeiture of the M2, M3 and M4 milestone payments, except as otherwise provided in Section 7.6.2.

If an Interconnection Customer or MHVDC Connection Customer disputes the withdrawal and loss of its applicable queue position, then during Dispute Resolution, the Interconnection Customer's or MHVDC Connection Customer's Interconnection Request is eliminated from the queue until such time that the outcome of Dispute Resolution would restore its applicable queue position.

An Interconnection Customer or MHVDC Connection Customer that withdraws or is deemed to have withdrawn its Interconnection Request shall pay to Transmission Provider all costs that Transmission Provider prudently (i) incurs prior to the Transmission Provider's receipt of notice described above and (ii) will incur as a result of

the withdrawal. Interconnection Customer or MHVDC Connection Customer must pay all monies due to Transmission Provider before it is allowed to obtain any Interconnection Study data or results.

Transmission Provider shall (i) update the OASIS list of Interconnection Requests and (ii) refund to Interconnection Customer or MHVDC Connection Customer any portion of the Interconnection Customer's or MHVDC Connection Customer's study deposit that exceeds the costs that Transmission Provider has incurred or will incur as a result of the withdrawal as described in Section 13.3, including interest earned on the Interconnection Customer's or MHVDC Connection Customer's study deposit and Definitive Planning Phase entry milestone payment while held in Transmission Provider's interest-bearing, money market account, or if such account does not exist, then the interest calculated in accordance with 18 C.F.R. Section 35.19a(a)(2)(iii). In the event of such withdrawal, Transmission Provider, subject to the confidentiality provisions of Section 13.1, shall provide, at Interconnection Customer's or MHVDC Connection Customer's request, all information that Transmission Provider developed for any completed study conducted up to the date of withdrawal of the Interconnection Request.

3.7 Additional requirements for Generating Facility Replacement Requests.

3.7.1 Requirements for Replacement Generating Facility Requests.

- i) Any Replacement Generating Facility must connect to the Transmission System at the same electrical Point of Interconnection (i.e. same voltage level at the interconnecting substation) as the Existing Generating Facility.
- ii) The request for Generating Facility Replacement must be submitted to the Transmission Provider by the Interconnection Customer for its Existing Generating Facility at least one (1) year prior to the date that the Existing Generating Facility will cease operation unless the Existing Generating Facility is in suspension pursuant to Section 38.2.7 of the Tariff or in Forced Outage. The

request shall include the planned or actual date of cessation of operation for the Existing Generating Facility and the expected Commercial Operation Date for the Replacement Generating Facility.

- iii) The Interconnection Customer shall request only ER Interconnection Service for the Replacement Generating Facility if the Existing Generating Facility has only ER Interconnection Service. The request for NR Interconnection Service for the Replacement Generating Facility, when the Existing Generating Facility has only ER Interconnection Service, shall be submitted as a separate Interconnection Request and shall proceed through the Definitive Planning Phase cycle in the same manner as an Interconnection Request for a new Generating Facility. The Interconnection Customer may request either ER Interconnection Service or NR Interconnection Service for the Replacement Generating Facility if the Existing Generating Facility has NR Interconnection Service. Requests for ER or NR Interconnection Service that exceed the amount of Interconnection Service for the Existing Generating Facility shall be processed as a new Interconnection Request for the amount of such excess pursuant to Section 3.7.1.iv of this Attachment X to the Tariff.
- iv) If the Replacement Generating Facility requires Interconnection Service (MW) in excess of that of the Existing Generating Facility that is being replaced, Interconnection Customer shall initiate a separate request for Interconnection Service in an amount (MW) equal to the excess. Such Interconnection Request shall be assigned a new Queue Position, and proceed through the Definitive Planning Phase cycle in the same manner as an Interconnection Request for a new Generating Facility.
- v) If the request for Generating Facility Replacement requests less Interconnection Service (MW) than that of the Existing Generating Facility that is being replaced, the owner shall be required to submit an Attachment Y Notice for the amount

(MW) of such decrease in generating capacity to the Transmission Provider in accordance with timing and requirements of Section 38.2.7 of the Tariff.

- vi) Except as provided in Section 3.7.1(vi)(a) of this Attachment X, no request for Generating Facility Replacement may be made until twelve (12) months have elapsed from: (1) the date of any assignment of the Generator Interconnection Agreement applicable to the Existing Generating Facility, or (2) the date of sale or other transfer of such Existing Generating Facility. When an Existing Generating Facility is owned by more than one party and such coownership has existed for at least twelve (12) months prior to the date that the request for Generating Facility Replacement has been made, the restrictions described in this paragraph on transfers shall not preclude such co-owners from determining their respective ownership percentages in the Replacement Generating Facility, provided that the ownership interests in the Replacement Generating Facility is disclosed in the request of the Interconnection Customer that owns or controls the Existing Generating Facility pursuant to an existing Generator Interconnection Agreement for Generating Facility Replacement. Upon submission of a request for Generating Facility Replacement, the Interconnection Customer shall not sell or otherwise transfer the Existing Generating Facility, the Replacement Generating Facility, nor assign the applicable Generator Interconnection Agreement except as provided in Section 3.7.1(vi)(a) of this Attachment X until such time as the Transmission Provider completes evaluation of the request for Generating Facility replacement unless the Interconnection Customer first withdraws such request for Generating Facility Replacement in writing. In the event that the Transmission Provider notifies Interconnection Customer that the request for Generating Facility Replacement has been granted, the prohibition on sales, transfers, or assignments not authorized by this Attachment X shall be extended in accordance with Section 3.7.5 of this Attachment X. For purposes of this Section 3.7.1 (vi), prohibited assignments include assignments to affiliates pursuant to Article 19.1

of the *pro forma* Generator Interconnection Agreement or any analogous provision in the applicable GIA.

a. An Interconnection Customer may: (1) sell or otherwise transfer its Existing Generating Facility, (2) assign its Generator Interconnection Agreement; or (3) sell or otherwise transfer a Replacement Generating Facility to an entity or entities meeting the requirements of Section 3.7.1(vi)(a)(1) below without violating this Section 3.7.1(vi) if all of the following conditions are satisfied prior to such sale, assignment or transfer becoming effective:

1. The Interconnection Customer that owns or controls the Existing Generating Facility pursuant to an existing Generator Interconnection Agreement demonstrates to the Transmission Provider that it both:

- i. Holds, directly or indirectly, not less than a 25% ownership interest in each entity receiving the applicable assignment or transfer as demonstrated through documentation of: (1) shares or a partnership interests in the transferee/assignee; (2) a right to receive at least 25% of net proceeds from the sale of the transferred or assigned generating facility; or (3) another form of interest in the transferee/assignee that is recognized by the Commission as equivalent to an ownership interest;
- ii. Has the documented right to direct the performance of such entity with respect to any obligation under MISO's Tariff and Generator Interconnection Agreement applicable to the transferred Generating Facility; and

2. The Interconnection Customer that owns or controls the Existing Generating Facility pursuant to an existing Generator Interconnection Agreement and the entity that received the

- assignment or transfer commit in documentation to be supplied to the Transmission Provider prior to the effective date of any sale, assignment or transfer: (i) that the Interconnection Customer shall retain the ownership and control required by Section 3.7.1(vi)(a)(1) of this Attachment X until the Replacement Generating Facility achieves commercial operation in accordance with Section 3.7.5 of this Attachment X, unless the request for Generating Facility Replacement is denied or withdrawn; (ii) that the entity receiving the assignment or transfer under this section 3.7.1(vi) of this Attachment X agrees not to further sell, transfer or assign its interests in the Existing Generating Facility, Replacement Generating Facility, or Generator Interconnection Agreement except in accordance with this Attachment X; and (iii) to provide the Transmission Provider upon request with documentation demonstrating continued compliance with the requirements of Section 3.7.1(vi) of this Attachment X at any time prior to the date that the applicable Replacement Generating Facility achieves commercial operation; and
3. The Interconnection Customer receives the consent of the Transmission Provider, which consent shall be granted upon the Transmission Provider determining that the proposed transfer(s) or assignment(s) comply with the requirements of Section 3.7.1(vi)(a) of these Generator Interconnection Procedures.

A transfer, sale, or assignment of the Existing Generating Facility, Replacement Generating Facility, or applicable GIA that violates this Section 3.7.1 (vi) or Section 3.7.1(vi)(a) of Attachment X shall void the request for Generating Facility Replacement.

3.7.1.1 Requirements for modification of Replacement Generating Facility Requests.

The request for Replacement Generating Facility can be modified any time before the evaluation process is complete.

- 1) If the revised planned date of cessation of operation for the Existing Generating Facility is prior to the planned date of cessation of operation specified in original request, a new request for Replacement Generating Facility must be submitted at least one (1) year prior to the date that the Existing Generating Facility is planned to cease operation.
- 2) If the revised expected Commercial Operation Date for the Replacement Generating Facility is after the expected Commercial Operation Date for the Replacement Generating Facility in the original request, a new request for Replacement Generating Facility must be submitted at least one (1) year prior to the date that the Existing Generating Facility is planned to cease operation, unless the Existing Generating Facility is in suspension pursuant to Section 38.2.7 of the Tariff or in Forced Outage.

3.7.2 Evaluation Process for Generating Facility Replacement Requests.

The Transmission Provider will evaluate Generating Facility Replacement requests in the order in which they are submitted. The evaluation will consist of two studies: i) a Replacement Impact Study as set forth in Section 3.7.2.1 of the GIP, and ii) a Reliability Assessment Study as set forth in Section 3.7.2.2 of the GIP.

Transmission Provider shall use Reasonable Efforts to complete the Replacement Impact Study and Reliability Assessment Study and share results with the Interconnection Customer within one hundred eighty (180) Calendar Days of the request.

3.7.2.1 Generating Facility Replacement—Replacement Impact Study.

The Replacement Impact Study will include analyses to determine if the Replacement Generating Facility has a material adverse impact on the Transmission System when compared to Existing Generating Facility. The Replacement Impact Study may include steady-state (thermal/voltage), reactive power, short circuit/fault duty, and stability analyses, as necessary, to ensure that required reliability conditions are studied. If the Replacement Impact Study identifies any materially adverse impact from operating the Replacement Generating Facility when compared to the Existing Generating Facility, such impacts shall be deemed a Material Modification, and in order to move forward, the Interconnection Customer must submit all information and milestone payments necessary for a valid Interconnection Request for a new Generating Facility pursuant to Section 3.3 of this GIP, be assigned queue priority as of the date such information and milestones are provided, and proceed through the Definitive Planning Phase cycle as an Interconnection Request for a new Generating Facility. In such event, the Interconnection Customer shall be subject to the timing and requirements of Section 38.2.7 of the Tariff for any retirement of the Existing Generating Facility.

3.7.2.2 Generating Facility Replacement—Reliability Assessment Study

The Reliability Assessment Study for the time period between the date that the Existing Generating Facility ceases commercial operations and the Commercial Operation Date of the Replacement Generating Facility shall evaluate the performance of the Transmission System to determine if thermal and/or voltage violations of applicable NERC Standards and Transmission Owner planning criteria are caused by removing the Existing Generating Facility from service prior to the Commercial Operation Date of the Replacement Generating Facility. This study shall compare the conditions on the Transmission System that would exist if the Existing Generating Facility is taken offline to the conditions on the Transmission System as they exist when the Existing Generating Facility is online. The scope of Reliability Assessment Study may include stability analysis as necessary. The Existing Generating Facility shall be responsible for mitigating any reliability violation identified in the Reliability Assessment Study and may not cease operations until all mitigations are implemented or are in service. Mitigation for this

interim period may, as applicable, include: (i) redispatch/reconfiguration through operator instruction; and (ii) remedial action scheme or any other operating steps depending upon the type of reliability violation identified.

3.7.3 Generating Facility Replacement - Notice to Proceed

Interconnection Customer requesting Generating Facility Replacement shall inform Transmission Provider within thirty (30) Calendar Days after having received results of the Replacement Impact Study and Reliability Assessment Study of its election to proceed and Transmission Provider will initiate an Interconnection Facilities Study or tender a draft GIA. Interconnection Customer that fails to provide an election to proceed within thirty (30) Calendar Days will result in withdrawal of the Interconnection Request pursuant to Section 3.6 of this GIP.

3.7.4 Scope of Interconnection Facilities Study

Interconnection Facilities Study focusing on the Interconnection Facilities for the Replacement Generating Facility will start, if the Transmission Provider determines such a study is necessary, upon Interconnection Customer's notice to proceed to the Transmission Provider after completion of the Replacement Impact Study and the Reliability Assessment Study. This Interconnection Facilities Study will identify estimates for cost and the time required to construct the Interconnection Facilities. Transmission Provider shall use Reasonable Efforts to complete this portion of the Interconnection Facilities Study within ninety (90) Calendar Days.

3.7.5 GIA for Generating Facility Replacement.

Transmission Provider shall tender a draft *pro forma* GIA or GIAs or, if deemed appropriate, an amended GIA or GIAs that conforms to the *pro forma* GIA in effect at the time, within thirty (30) Calendar Days after the Interconnection Customer communicates its election to proceed with Generator Replacement if an Interconnection Facilities Study is not required or within thirty (30) Calendar Days after final Facility Study reports are

provided to the Interconnection Customer. An Interconnection Customer that transferred or assigned a Replacement Generating Facility to one or more entities consistent with the requirements of 3.7.1(vi)(a) may elect for each such entity to receive a separate GIA for its Replacement Generating Facility. The draft *pro forma* GIA shall include updated appendices describing the timing of Generating Facility Replacement and a condition that the GIA or GIAs cannot be assigned and the Replacement Generating Facility cannot be transferred to any other Party, including an affiliate of the Interconnection Customer other than as allowed by Section 3.7.1(vi)(a) of this Attachment X, until such date as the applicable Replacement Generating Facility achieves commercial operation. A transfer, sale, or assignment of the Existing Generating Facility, Replacement Generating Facility, or applicable GIA that violates this Section 3.7.5 shall be void and constitute a material breach of the GIA.

3.8 Identification of Contingent Facilities.

MISO identifies Contingent Facilities using the following three methods:

- i. Review all transmission facilities included in Interconnection System Impact Studies performed for an Interconnection Request that are: (1) listed in Appendix A of the Transmission Provider's Transmission Expansion Plan (MTEP) that are not yet in service, unless the Transmission Provider determines through the exercise of engineering judgment and after consultation with the applicable Transmission Owner(s), that such project does not address an existing overload and will not impact the injection of the Interconnection Request, such as age related line renewal projects that are not Baseline Reliability Project; or (2) identified as Network Upgrades through the System Impact Studies for higher queued Interconnection Requests that are not yet in service. Contingent Facilities shall be identified from this list as those facilities that meet the following criteria:
 - a. Power Transfer Distribution Factor or Outage Transfer Distribution Factor $\geq 5\%$ and;

- b. MW impact (Power Transfer Distribution Factor or Outage Transfer Distribution Factor multiplied by generator output of the Interconnection Request) ≥ 5 MW, and;
 - c. MW impact (Power Transfer Distribution Factor or Outage Transfer Distribution Factor multiplied by generator output of the Interconnection Request) $\geq 1\%$ of the Facility Rating.
- ii. All Network Upgrades identified in the Final System Impact Study for a given Interconnection Request pursuant to Section 7.3.3.3 of this GIP.
 - iii. Coordination with applicable Affected System parties to determine what Contingent Facilities have been identified through Affected System Studies based on their respective criteria.

The Contingent Facilities identified for a given Interconnection Request are the total of all facilities identified through each of the foregoing three methods. Transmission Provider shall provide an initial list of Contingent Facilities at the start of the Interconnection Customer Decision Point II, which list shall include facilities identified in the Revised System Impact Study performed pursuant to Section 7.3.2.3, and the final list of Contingent Facilities shall be documented in Appendix A of the Generator Interconnection Agreement for such Interconnection Request. The estimated Interconnection Facility and/or Network Upgrade costs and estimated in-service completion time of each identified Contingent Facility shall be provided in Appendix A of the Generator Interconnection Agreement for such Interconnection Request when this information is readily available and not commercially sensitive.

SECTION 4. QUEUE POSITION.

4.1 General.

Transmission Provider shall assign a Queue Position based upon the date and time of receipt of the valid Interconnection Request; provided that, if the sole reason an Interconnection Request is not valid is the lack of required information on the application

form, and Interconnection Customer or MHVDC Connection Customer provides such information in accordance with Section 3.3.1, then Transmission Provider shall assign Interconnection Customer or MHVDC Connection Customer a Queue Position based on the date the application was deemed complete by Transmission Provider. Moving a Point of Interconnection or Point of Connection shall result in a reassignment of the Queue Position except as otherwise noted in Section 4.4.

The Definitive Planning Phase Queue Position will be established based upon the date Interconnection Customer or MHVDC Connection Customer satisfies all of the requirements of Section 7.2 to enter the Definitive Planning Phase. The Definitive Planning Phase Queue Position will also be used for the determination of cost responsibility for the facilities necessary to accommodate the Interconnection Request, except for Group Studies. The determination of cost responsibility for common facilities necessary to accommodate two or more Interconnection Requests participating in a Group Study may depend on factors other than the Definitive Planning Phase Queue Position. A higher queued Interconnection Request is one that has been placed “earlier” in the queue in relation to another Interconnection Request that is lower queued. All Interconnection Requests within the same Definitive Planning Phase cycle shall have equal priority (i.e. similarly queued).

Transmission Provider may perform an Interconnection Study out of queue order at any time to the extent warranted by Good Utility Practice based upon: 1) the electrical remoteness of the Generating Facility or MHVDC Transmission Line or 2) the request of Interconnection Customer or MHVDC Connection Customer, if Transmission Provider concurs with the request and has the resources to do the study provided Interconnection Customer or MHVDC Connection Customer accepts the financial risk that study resources may be reassigned, that its Interconnection Request is subject to review and restudy in queue order, and that its GIA or TCA may be amended to reflect a reassignment of upgrades as Interconnection Studies of higher queued Interconnection Requests are completed. Interconnection Customer or MHVDC Connection Customer

may request the Transmission Provider's concurrence 1) in connection with a resource solicitation process, 2) when Interconnection Customer or MHVDC Connection Customer proposes to replace equipment due to catastrophic failure and such replacement is determined to be Material Modifications under Section 4.4, and 3) for other reasons specific to Interconnection Customer or MHVDC Connection Customer.

4.2 Group Study Organization of Interconnection Studies.

Interconnection System Impact Studies and Interconnection Facilities Studies may be performed in a Group Study format, whenever applicable, in the Definitive Planning Phase, except when a particular Interconnection Request is sufficiently electrically remote from others that it cannot reasonably be grouped with other Interconnection Requests. Interconnection Requests for both ER Interconnection Service and NR Interconnection Service may be part of a Group Study at the option of Transmission Provider. An Interconnection Request's inclusion in a Group Study will not relieve Transmission Provider from meeting the timelines provided in the GIP.

Grouping shall be implemented on the basis of electrical proximity. Transmission Provider may elect to perform Group Studies: (i) in connection with a resource solicitation process with the concurrence of Transmission Provider; (ii) when a coordinated study with an Affected System Operator will be performed that involve Interconnection Requests in the generator interconnection queue of Transmission Provider and of the Affected System Operator; (iii) to identify Common Use Upgrades; or (iv) at the request of a group of affected Interconnection Customers or MHVDC Connection Customers.

If item (i) above applies and Transmission Owner concurs, the solicitor must (a) be authorized by Interconnection Customers participating in the solicitation to act as the agent for all the Interconnection Requests submitted by Interconnection Customers, (b) maintain valid Interconnection Requests, (c) submit all Interconnection Requests at the same time, (d) submit a reasonable number of study portfolios (*i.e.*, a

mixture of projects meeting the requirements of the solicitation that are studied in parallel), and (e) select one portfolio prior to the start of the Interconnection Facilities Study.

Interconnection Requests included in a Group Study related to a resource solicitation process are subject to study according to their Definitive Planning Phase Queue Position in the process. Interconnection Requests for projects that are not included in a Group Study related to a resource solicitation process are subject to study according to their Definitive Planning Phase Queue Position outside the process in accordance with the provision of the GIP, and such studies may not be delayed as a result of the resource solicitation process. An Interconnection Customer may request that its Interconnection Request be included in a Group Study related to a resource solicitation process without having to abandon the existing Definitive Planning Phase Queue Position for such Interconnection Request. Once the solicitor rejects a project in the resource solicitation process, the Interconnection Request associated with the rejected project loses the Definitive Planning Phase Queue Position it held as part of the resource solicitation process. An Interconnection Customer that participates in a Group Study related to a resource solicitation process may at any time for the same project submit a separate Interconnection Request that is not included in the Group Study, provided, however, that Interconnection Customer shall be responsible for all Interconnection Study costs associated with its non-solicitation-related Interconnection Request in addition to any costs associated with Interconnection Customer's bid into the resource solicitation. When the solicitor selects a project in the resource solicitation process, Interconnection Customer may no longer maintain more than one Definitive Planning Phase Queue Position for the selected project. Interconnection System Impact Studies performed as Group Studies shall be conducted in such a manner to ensure the efficient implementation of the applicable regional transmission expansion plan in light of the Transmission System's capabilities at the time of each study.

4.3 Transferability of Queue Position.

An Interconnection Customer or MHVDC Connection Customer may transfer either of its queue positions to another entity only if such entity acquires the specific Generating Facility or MHVDC Transmission Line identified in the Interconnection Request and the Point of Interconnection or Point of Connection does not change.

4.4 Modifications.

Interconnection Customer or MHVDC Connection Customer shall submit to Transmission Provider modifications to any information provided in the Interconnection Request in the manner specified by the Generator Interconnection Business Practices Manual (BPM-015). Interconnection Customer or MHVDC Connection Customer shall retain its Queue Position if the modifications proposed by Interconnection Customer or MHVDC Connection Customer are in accordance with Sections 4.4.1 or 4.4.4.

Notwithstanding any modifications to information provided in the Interconnection Request, the applicable timing requirements of Section 7.2 to return study agreements and obligation to provide study deposits will not change.

Notwithstanding the above, during the course and prior to the completion of the Interconnection Studies, Interconnection Customer or MHVDC Connection Customer, Transmission Owner or Transmission Provider may identify changes to the planned interconnection that may improve the costs and benefits (including reliability) of the interconnection, and the ability of the proposed change to accommodate the Interconnection Request. If the Interconnection Customer is requesting to share Interconnection Customer Interconnection Facilities as part of the proposed change, the Interconnection Customer shall submit a consent agreement that meets the requirements of Section 3.3.1.4 along with the identification of changes to the planned interconnection. To the extent the identified changes are acceptable to Transmission Provider, Transmission Owner and Interconnection Customer or MHVDC Connection Customer, such acceptance not to be unreasonably withheld; Transmission Provider shall modify the Point of Interconnection or Point of Connection and/or configuration in accordance with

such changes and proceed with any required Interconnection Studies. Changes to the Point of Interconnection or Point of Connection requested by Interconnection Customer or MHVDC Connection Customer during the Definitive Planning Phase, except as described in this paragraph, will result in the Interconnection Request having to be revalidated according to the procedures in Section 3.3.1, and a new Definitive Planning Phase Queue Position assigned in accordance with the procedures in Section 4.1.

4.4.1 During the Definitive Planning Phase and prior to the issuance of draft GIA, the modifications permitted shall include: (a) a change in the technical parameters associated with the Generating Facility or MHVDC Connection Customer technology other than a Permissible Technological Advancement; (b) a change to the Point of Interconnection or Point of Connection permitted under Section 4.4; and (c) a Permissible Technological Advancement for the Generating Facility or MHVDC Connection Customer. For such permitted modification proposed by Interconnection Customer or MHVDC Connection Customer pursuant to 4.4.1(a) or 4.4.1(b), Interconnection Customer or MHVDC Connection Customer shall submit a detailed analysis demonstrating why they believe the change is not a Material Modification. Transmission Provider must review such analysis and will determine, in its discretion, if the proposed modification is a Material Modification. In the absence of such analysis, the modification shall be deemed a Material Modification. Section 4.4.1.1 specifies a separate technological change procedure including the requisite information and process that will be followed to assess whether the Interconnection Customer's proposed technological advancement under Section 4.4.1(c) is a Material Modification. Section 1 contains a definition of Permissible Technological Advancement.

4.4.1.1 Technological Change Procedure.

For permitted modification proposed by Interconnection Customer or MHVDC Connection Customer, Interconnection Customer or MHVDC Connection

Customer shall submit a technological advancement request demonstrating that the proposed change is a Permissible Technological Advancement or submitting a detailed analysis to demonstrate that the proposed change is not a Material Modification. Such request shall include a description of the proposed change together with updated modeling data (power flow and stability), updated technical data as outlined in Attachment A of Appendix 1 of this GIP and a study deposit of \$10,000.00. The detailed analysis to demonstrate that the proposed change is not a Material Modification shall include steady-state (thermal/voltage), reactive power, short circuit/fault duty, and stability analyses unless the Transmission Provider deems one or more of these not necessary based on the nature of the change requested. The following criteria will be used to determine whether the proposed change is a Material Modification:

- a. Any change in expected output of the Generating Facility that is higher than what was studied in the interconnection process unless a control equipment is employed to limit the injection at the POI to the level of Interconnection Service originally requested;
- b. An increase in short circuit current that degrades transmission system reliability;
- c. Angular stability performance and dynamic response that degrades transmission system reliability;
- d. Violation of steady-state thermal or voltage limits caused by the planned change utilizing the same criteria consistent with the Interconnection System Impact Study.

Within 30 calendar days of receipt of a technological advancement request containing the information and security deposit required by Section 4.4.1.1, the Transmission Provider shall review such request and supporting documentation to determine if the proposed change is a Permissible Technological Advancement or

otherwise not a Material Modification and communicate the results together with a written explanation to the Interconnection Customer of the Transmission Provider's determination. In the event that the Transmission Provider determines that the proposed change is a Material Modification, the Interconnection Customer or MHVDC Connection Customer shall have the option of: (i) withdrawing such technological advancement request and retaining its current queue position; or (ii) resubmitting its proposed Generating Facility as a new Interconnection Request.

- 4.4.2** After entering the Definitive Planning Phase as defined in Section 7.2, any modifications to the type of Interconnection Service selected by Interconnection Customer in the Interconnection Request, other than a change from NR Interconnection Service to ER Interconnection Service pursuant to Section 3.2 of this GIP, shall be deemed a Material Modification.
- 4.4.3** After entering the Definitive Planning Phase as defined in Section 7.2, any modification to the size of the Interconnection Request, other than as allowed in Section 4.4.5, Section 7.3.1.4, or Section 7.3.2.4 of this GIP, shall be deemed a Material Modification.
- 4.4.4** After entering the Definitive Planning Phase as defined in Section 7.2, any extension by Interconnection Customer or MHVDC Connection Customer to the In-Service Date or Commercial Operation Date of the Generating Facility or MHVDC Transmission Line shall be deemed a Material Modification except that the Transmission Provider will not unreasonably withhold approval of an Interconnection Customer's or MHVDC Connection Customer's proposed change in the In-Service Date or Commercial Operation Date of the Generating Facility or MHVDC Transmission Line if that change is the result of either (a) a change in milestones by another party to the GIA or TCA, (b) a change in a higher queued Interconnection Request, (c) delays in the completion of the Definitive Planning

Phase Studies, or (d) Interconnection Customer demonstrates that engineering, permitting and construction of the Generating Facility will take longer than the process window for the Transmission Provider's Definitive Planning Phase period. Where such exceptions apply, extensions to the Commercial Operation Date or In-Service Date shall not exceed three years beyond the original Commercial Operation Date or In-Service Date. A change to either of these dates that exceeds three years from the date in the original Interconnection Request is a Material Modification. At the completion of the Definitive Planning Phase, the Commercial Operation Date shall be set forth in a GIA. Consistent with Article 2.3.1 of the GIA, once that GIA is executed or filed unexecuted, if the Generating Facility fails to reach Commercial Operation by the Commercial Operation Date set forth in the GIA, such Commercial Operation Date as set forth in the GIA may be extended by Interconnection Customer for a period up to three (3) consecutive years, after which Transmission Provider shall terminate the GIA if the Generating Facility has still failed to reach Commercial Operation. 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 this Section 4.4.4, Transmission Provider shall only terminate the GIA for failure to achieve Commercial Operation by that later in-service date of the contingent Network Upgrade.

- 4.4.5** After entering the Definitive Planning Phase, any modification to the fuel source designated in the Interconnection Request, other than a modification to reduce the number of fuel source(s) of an Interconnection Request with two or more fuel sources before the kick-off of the Definitive Planning Phase I, shall be deemed a Material Modification.

**SECTION 5. PROCEDURES FOR INTERCONNECTION REQUESTS SUBMITTED
PRIOR TO EFFECTIVE DATE OF GENERATOR INTERCONNECTION
PROCEDURES.**

5.1 Queue Position for Pending Requests.

5.1.1 All Interconnection Requests that have entered a Definitive Planning Phase and the Definitive Planning Phase System Impact Study has been completed prior to January 4, 2017 will complete the Definitive Planning Phase pursuant to the approved GIP in effect on January 3, 2017. The August 2015 Definitive Planning Phase cycle shall be completed pursuant to the approved GIP in effect on January 3, 2017.

5.1.2 All Interconnection Requests that have entered a Definitive Planning Phase and the System Impact Study has not been started, or started and not completed, as of January 4, 2017 will be required to conform to Section 7 of this GIP excluding Section 7.2 “Eligibility for the Definitive Planning Phase” and the Site Control provisions found in Section 7.3.2.4 so long as the Interconnection Customer has previously complied with the then existing Section 8.2 “Eligibility for the Definitive Planning Phase.” All study deposits will be applied to studies performed under this transition plan and M2 milestone amounts previously paid will satisfy the M2 milestone requirement of Section 7.2. These projects will then follow all other sections of these Generator Interconnection Procedures in effect as of January 4, 2017.

5.1.3 All Interconnection Requests that have been received but have not had an M2 milestone calculated as of January 4, 2017, and have not met the requirements of Section 5.1.4, will be required to conform to Section 7 of these GIPs and will then follow all other sections of these Generator Interconnection Procedures in effect as of January 4, 2017.

5.1.4 All Interconnection Requests that are in the System Planning and Analysis Phase of the GIPs in effect prior to January 4, 2017 may pay their M2 milestone payment prior to January 4, 2017 and shall be treated pursuant to section 5.1.2. Interconnection Requests that are in the System Planning and Analysis Phase prior to the effective date of these GIPs that have not paid an M2 milestone payment prior to January 4, 2017 shall be treated pursuant to section 5.1.3. Interconnection Requests that are in the System Planning and Analysis Phase may remain in the System Planning and Analysis Phase until 45 Calendar Days prior to the start of the first cycle under these GIPs which begins August 1, 2017. MISO shall deem withdrawn any Interconnection Requests that are in the System Planning and Analysis Phase that have not made their M2 milestone payment at least 45 Calendar Days prior to the start of the first cycle under these GIPs. Notwithstanding the foregoing, any request for HVDC facilities listed as being in the System Planning and Analysis Phase as of June 16, 2017 shall be deemed transferred into the Pre-Queue Phase. Furthermore, any MHVDC projects in the Pre-Queue Phase as of the effective date of the MHCP shall be deemed transferred to the MHCP, as set forth in Section 4 of the MHCP.

5.2 Transition Period.

An Interconnection Customer of a new transmission owning member of Transmission Provider shall transition to the revised GIP within a reasonable period of time not to exceed ninety (90) Calendar Days from the date when this GIP becomes applicable to that transmission owning member.

5.3 New Transmission Provider.

If Transmission Provider transfers control of its Transmission System to a successor Transmission Provider during the period when an Interconnection Request is pending, the original Transmission Provider shall transfer to the successor Transmission Provider any amount of the deposit or payment with interest thereon that exceeds the cost that it

incurred to evaluate the request for interconnection. Any difference between such net amount and the deposit or payment required by the GIP shall be paid by or refunded to Interconnection Customer, as appropriate. The original Transmission Provider shall coordinate with the successor Transmission Provider to complete any Interconnection Study, as appropriate, that the original Transmission Provider has begun but has not completed. If Transmission Provider has tendered a draft GIA to Interconnection Customer but Interconnection Customer has not either executed the GIA or requested the filing of an unexecuted GIA with FERC, unless otherwise provided, Interconnection Customer must complete negotiations with the successor Transmission Provider.

5.4 Transition to Revised Scope of DPP Phase I Studies.

With the exception of this provision, the Tariff revisions accepted in Docket Nos. ER18-2049-000 and -001 shall not apply to any queue cycle(s) for which the Definitive Planning Phase Preliminary System Impact Study has started prior to September 19, 2018.

5.5 Transitional Notice Requirements for Generating Facility Replacement.

All requests for Replacement Generating Facility that are submitted to the Transmission Provider within 365 Calendar Days after May 16, 2019 shall have a date of cessation of operation for the Existing Generating Facility that is not earlier than May 16, 2021.

5.6 Transition to Revised Milestone Requirements Accepted in Docket No. ER20-41.

All Interconnection Requests for which the application deadline to enter the Definitive Planning Phase was prior to April 29, 2019 shall be required to adhere to milestone requirements in GIP in effect prior to December 4, 2019.

All Interconnection Requests for which the application deadline to enter the Definitive Planning Phase was on April 29, 2019 shall be required to adhere to the revised milestone requirements accepted in Docket No. ER20-41, but shall not be subject to the M2 refund

provisions in Section 7.6.2.1 of this GIP. All Interconnection Requests for which the application deadline to enter the Definitive Planning Phase was on April 29, 2019 shall be subject to M2 refund provisions in effect prior to December 4, 2019.

All Interconnection Requests for which the application deadline to enter the Definitive Planning Phase is after April 29, 2019 shall be required to adhere to the revised milestone requirements accepted in Docket No. ER20-41.

5.7 Transition to Revised Site Control Requirements Accepted in Docket No. ER20-41.

All Interconnection Requests for which the application deadline to enter the Definitive Planning Phase was prior to April 29, 2019 shall be required to adhere to Site Control requirements in GIP in effect prior to December 4, 2019.

All Interconnection Requests for which the application deadline to enter the Definitive Planning Phase was on April 29, 2019 shall be required to provide proof of Site Control for the Generation Facility by the end of Interconnection Customer Decision Point II in accordance with the timing requirements established in Section 7.2.2.1. Such Interconnection Requests shall not be required to provide proof of Site Control for the Generating Facility ninety (90) Calendar Days prior to the start of DPP Phase I in accordance with the timing requirements established in Section 7.2.1. For such requests, the proof of Site Control for all applicable Interconnection Customer's Interconnection Facilities, and, if applicable (*i.e.*, when the Interconnection Customer is providing the site for such facilities), the Transmission Owner's Interconnection Facilities and Network Upgrades at the POI shall be due in accordance with the terms of Sections 7.2.2.1 and 7.2.2.2.

All Interconnection Requests for which the application deadline to enter the Definitive Planning Phase is after April 29, 2019 will be subject to the Site Control requirements as set forth in Section 7.2.

5.8 Transition to Self-Fund Deadline Accepted in Docket No. ER20-2632.

For all Network Upgrades and System Protection Facilities that were identified in a Revised System Impact Study that completed prior to November 5, 2020 and for which the Final System Impact Study was not completed as of November 5, 2020, the Transmission Owner shall make an election as to whether the Transmission Owner intends to self-fund each specific Network Upgrade and System Protection Facility identified in the Revised System Impact Study. Transmission Owner shall make its election prior to the completion of the Final System Impact Study.

For all Network Upgrades and System Protection Facilities that were identified in a Final System Impact Study that completed prior to November 5, 2020 and for which the negotiation period for the GIA was not completed as of November 5, 2020, the Transmission Owner may make an election as to whether the Transmission Owner intends to self-fund each specific Network Upgrade and System Protection Facility prior to the completion of the GIA negotiation period.

5.9 Transition to revised DPP schedule in Docket No. ER22-661.

Interconnection Requests for which Transmission Provider started the DPP Phase III Final System Impact Study before March 15, 2022 will be subject to the Tariff requirements in effect prior to March 15, 2022. Interconnection Requests for which the DPP Phase III Final System Impact Study has not started as of March 15, 2022 will be subject to the revised Tariff accepted in Docket No. ER22-661.

SECTION 6. PRE-QUEUE PHASE.

6.1 Pre-Queue Customer Education

Transmission Provider will be available for consultation with Interconnection Customer to discuss potential Interconnection Requests for Generating Facilities or study and processing of HVDC facilities. Such discussions may include, but are not limited to: (i) general facility loadings; (ii) general instability issues; (iii) general short circuit issues; (iv) general voltage issues including voltage and frequency ride-through capabilities for the Generating Facility; (v) general power quality issues including voltage flicker, harmonics; (vi) general reliability issues as may be reasonably required to accomplish the purpose of the meeting; (vii) estimated timing of Interconnection Request proceeding to the Definitive Planning Phase; (viii) estimated in-service date for the request; and (ix) any process related questions.

6.2 Interim Treatment of HVDC Facilities in Pre-Queue Phase: All requests for HVDC facilities deemed transferred into the Pre-Queue Phase pursuant to Section 5.1.4 of this GIP or which otherwise are permitted to enter the Pre-Queue Phase shall not be eligible to proceed to the Definitive Planning Phase until such time as additional procedures for processing such facilities are implemented

6.3 Small Generating Facility Pre-Application Report.

6.3.1 In addition to the information described in section 6.1, which may be provided in response to an informal request, an Interconnection Customer proposing to interconnect its Small Generating Facility may submit a formal written request form along with a non-refundable fee of \$300 for a pre-application report on a proposed project at a specific site. The Transmission Provider shall provide the pre-application data described in section 6.3.2 to the Interconnection Customer within twenty (20) Business Days of receipt of the completed request form and payment of the \$300 fee. Should the Transmission Provider notify the Interconnection

Customer that more than twenty (20) Business Days are necessary to provide the pre-application data described in section 6.3.2 below because the information is not readily available to the Transmission Provider, the Interconnection Customer shall notify the Transmission Provider that it desires more complete information and waives the twenty (20) Business Day timeline. The pre-application report produced by the Transmission Provider is non-binding, does not confer any rights, and the Interconnection Customer must still successfully apply to interconnect to the Transmission Provider's system. The written pre-application report request form shall include the information in sections 6.3.1.1 through 6.3.1.8 below to clearly and sufficiently identify the location of the proposed Point of Interconnection.

- 6.3.1.1** Project contact information, including name, address, phone number, and email address.
- 6.3.1.2** Project location (street address with nearby cross streets and town)
- 6.3.1.3** Meter number, pole number, or other equivalent information identifying proposed Point of Interconnection, if available.
- 6.3.1.4** Generator Type (e.g., solar, wind, combined heat and power, etc.)
- 6.3.1.5** Size (alternating current kW)
- 6.3.1.6** Single or three phase generator configuration
- 6.3.1.7** Stand-alone generator (no onsite load, not including station service – Yes or No?)

6.3.1.8 Is new service requested? Yes or No? If there is existing service, include the customer account number, site minimum and maximum current or proposed electric loads in kW (if available) and specify if the load is expected to change.

6.3.2 Using the information provided in the pre-application report request form in section 6.3.1, the Transmission Provider will identify the substation/area bus, bank or circuit likely to serve the proposed Point of Interconnection. This selection by the Transmission Provider does not necessarily indicate, after application of the screens and/or study, that this would be the circuit the project ultimately connects to. The Interconnection Customer must request additional pre-application reports if information about multiple Points of Interconnection is requested. Subject to section 6.3.3, the pre-application report will include the following information:

6.3.2.1 Total capacity (in MW) of substation/area bus, bank or circuit based on normal or operating ratings likely to serve the proposed Point of Interconnection.

6.3.2.2 Existing aggregate generation capacity (in MW) interconnected to a substation/area bus, bank or circuit (i.e., amount of generation online) likely to serve the proposed Point of Interconnection.

6.3.2.3 Aggregate queued generation capacity (in MW) for a substation/area bus, bank or circuit (i.e., amount of generation in the queue) likely to serve the proposed Point of Interconnection.

- 6.3.2.4** Available capacity (in MW) of substation/area bus or bank and circuit likely to serve the proposed Point of Interconnection (i.e., total capacity less the sum of existing aggregate generation capacity and aggregate queued generation capacity).
- 6.3.2.5** Substation nominal distribution voltage and/or transmission nominal voltage if applicable.
- 6.3.2.6** Nominal distribution circuit voltage at the proposed Point of Interconnection.
- 6.3.2.7** Approximate circuit distance between the proposed Point of Interconnection and the substation.
- 6.3.2.8** Relevant line section(s) actual or estimated peak load and minimum load data, including daytime minimum load as described in section 14.4.4.1.1 below and absolute minimum load, when available.
- 6.3.2.9** Number and rating of protective devices and number and type (standard, bi-directional) of voltage regulating devices between the proposed Point of Interconnection and the substation/area. Identify whether the substation has a load tap changer.
- 6.3.2.10** Number of phases available at the proposed Point of Interconnection. If a single phase, distance from the three-phase circuit.
- 6.3.2.11** Limiting conductor ratings from the proposed Point of Interconnection to the distribution substation.

6.3.2.12 Whether the Point of Interconnection is located on a spot network, grid network, or radial supply.

6.3.2.13 Based on the proposed Point of Interconnection, existing or known constraints such as, but not limited to, electrical dependencies at that location, short circuit interrupting capacity issues, power quality or stability issues on the circuit, capacity constraints, or secondary networks.

6.3.3 The pre-application report need only include existing data. A pre-application report request does not obligate the Transmission Provider to conduct a study or other analysis of the proposed generator in the event that data is not readily available. If the Transmission Provider cannot complete all or some of a pre-application report due to lack of available data, the Transmission Provider shall provide the Interconnection Customer with a pre-application report that includes the data that is available. The provision of information on “available capacity” pursuant to section 6.3.2.4 does not imply that an interconnection up to this level may be completed without impacts since there are many variables studied as part of the interconnection review process, and data provided in the pre-application report may become outdated at the time of the submission of the complete Interconnection Request. Notwithstanding any of the provisions of this section, the Transmission Provider shall, in good faith, include data in the pre-application report that represents the best available information at the time of reporting.

SECTION 7. DEFINITIVE PLANNING PHASE.

7.1 Purpose of the Definitive Planning Phase.

The Definitive Planning Phase is designed to identify Network Upgrades that will reliably and efficiently integrate the proposed generation, including through Injection Rights requested by MHVDC Connection Customer, into the Transmission Provider's Transmission System. The Definitive Planning Phase will be composed of three distinct phases in which Interconnection System Impact Studies and Interconnection Facilities Studies will be performed.

7.1.1 Screening Analysis Prior to Definitive Planning Phase I.

Transmission Provider will perform an indicative non-binding screening analysis to identify potential thermal and voltage constraints and publish the results of that analysis for Interconnection Customers and MHVDC Connection Customers entering the Definitive Planning Phase at least fifteen (15) Calendar Days prior to the kick-off of the Definitive Planning Phase I. If the Interconnection Customer or MHVDC Connection Customer decides to withdraw its Interconnection Request before the start of the Definitive Planning Phase I, then the Transmission Provider will refund to Interconnection Customer or the MHVDC Connection Customer 100% of Definitive Planning Phase entry milestone (M2) and any remaining study deposits pursuant to Section 7.6.

7.2 Eligibility for the Definitive Planning Phase.

The Interconnection Request shall enter the Definitive Planning Phase upon the Transmission Provider accepting the Interconnection Request as valid pursuant to Section 3.3.3 of this GIP after the Interconnection Customer or MHVDC Connection Customer has met the requirements of Section 3.3.1, specifically having provided the Definitive Planning Phase entry milestone, technical data requirements, and Definitive Planning Phase study deposit. The Definitive Planning Phase will start on a periodic basis, where an Interconnection Customer or MHVDC Connection Customer may elect to enter the next scheduled Definitive Planning Phase.

7.2.1 Requirements for Demonstrating Site Control for Generating Facility.

Except as otherwise provided in Section 5.7, at least ninety (90) Calendar Days prior to the scheduled kick-off of DPP Phase I published on the MISO public website as of the application deadline for entry into the next Definitive Planning Phase cycle, the Interconnection Customer shall submit one of the following to the Transmission Provider:

- (i) Proof of Site Control for the Generating Facility demonstrating that the Interconnection Customer has obtained a right to develop the site, and that such Site Control:
 - (a) is exclusive to the specific project referenced in the Interconnection Request and the site meets the total resource-specific acreage requirements established in the Generator Interconnection Business Practices Manual; or
 - (b) either is not exclusive to the specific project or includes less acreage than the standard resource-specific acreage requirements established in the Generator Interconnection Business Practice but is nonetheless sufficient to accommodate the final design of the Generating Facility, and account for any other projects that will utilize all or part of the same site; or
- (ii) A cash deposit in lieu of Site Control and supporting documentation demonstrating regulatory restrictions in accordance with Section 7.2.1.2 of this GIP.

Any advancement or postponement to the DPP Phase I kickoff date made after the application deadline for such cycle shall not alter the deadline for submitting proof of Site Control.

Site Control for a Generating Facility shall be demonstrated in accordance with Section 7.2.1.1 and Section 7.2.1.2 of this GIP.

All documentation establishing proof of Site Control under Sections 7.2.1 of this GIP shall be accompanied by a signed affidavit from an officer or from an agent of the Interconnection Customer stating either that the Interconnection Customer: (1) possesses Site Control in accordance with Section 7.2.1.1 of this GIP; or (2) is subject to regulatory restrictions that preclude Interconnection Customer from obtaining Site Control pursuant to Section 7.2.1.2 of this GIP. Such affidavit shall adhere to the form specified in Attachment E of Appendix 1 of Attachment X.

7.2.1.1 Site Control Demonstration.

In order to demonstrate Site Control for a Generating Facility, an Interconnection Customer must submit the following:

- (i) To demonstrate that an Interconnection Customer has Site Control in accordance with Section 7.2.1(i)(a) of this GIP, a Geographic Information System (GIS) site plan map, data files, and documentation that shows the following information: (a) sufficient land to meet the acreage requirements set forth in the Generator Interconnection Business Practices Manual; (b) boundary for the proposed project indicating the boundaries of the Interconnection Customer's leasehold/ownership interests for the site; and (c) the proposed location of each of the following: the Collector Substation, the Point of Interconnection, and the Interconnection Facilities based on the Point of Interconnection.
- (ii) To demonstrate that an Interconnection Customer has obtained Site Control in accordance in accordance with Section 7.2.1(i)(b) of

this GIP, Interconnection Customer must submit a Geographic Information System (GIS) site plan map, data files, and documentation that meets the requirements specified in Section 7.2.1.1(i)(b) and (c) and show the following additional information:

(a) Sufficient land to accommodate the proposed Generating Facility based on the location and approximate land utilization requirements of proposed electrical devices (*i.e.*, turbine, solar panel, battery storage, inverter), local spacing and setback requirements, and the proposed location of the feeder routes to the Collector Substation; and

(b) In the event that Interconnection Customer elects to share a site with other projects in accordance with Section 7.2.1(i)(b) of this GIP, Interconnection Customer shall include with its Interconnection Request documentation demonstrating that the project referenced in the Interconnection Request is concurrently feasible with the development of any other projects that will share Site Control over all or a portion of the same site. Such proof of concurrent feasibility shall include:

(1) an identification of any other Interconnection Requests or projects that will share all or a portion of the same site; and

(2) identification of the proposed location and space utilization of all projects that will share the site together with any related technical information specified in the Generator Interconnection Business Practices Manual to

enable the Transmission Provider to determine that development of the project referenced in the submitted Interconnection Request is not inconsistent with development of any of the other projects that will share all or a portion of the same site.

Any GIS site plan map, and data files submitted in accordance with this Section 7.2.1.1 must be consistent with the modeling data submitted with the Interconnection Request.

7.2.1.2 Cash in lieu of Site Control.

If the Interconnection Customer is unable to obtain Site Control for its proposed Generating Facility as a result of regulatory restrictions, the Interconnection Customer shall provide a cash deposit in lieu of Site Control. In order to demonstrate regulatory restrictions, Interconnection Customer must submit: (i) a signed affidavit in accordance with the terms of Section 7.2.1 of this GIP indicating that Site Control is unobtainable due to regulatory requirements; (ii) documentation sufficiently describing and explaining the source of and effects of such regulatory restrictions, including a description of any conditions that must be met in order to satisfy the regulatory restrictions and the anticipated time by which the Interconnection Customer expects to satisfy the regulatory restrictions. The cash deposit made in lieu of Site Control shall be \$10,000 per MW of new Interconnection Service requested, and at least \$500,000 but no more than \$2,000,000. In the event that Interconnection Customer needs to submit a cash deposit in lieu of Site Control as a result of regulatory restrictions, Interconnection Customer must provide proof of Site Control as soon as the Interconnection Customer satisfies the regulatory requirements described in the Interconnection Customer's affidavit and supporting documents. Interconnection Customer's cash deposit made in

lieu of Site Control shall only be refunded once the Interconnection Customer satisfies the Site Control requirements in accordance with the terms of Sections 7.2.1(i), 7.2.1.1, and 7.2.2 of the GIP or is withdrawn from the queue.

7.2.1.3 Transmission Provider Review of Site Control Sufficiency.

The Transmission Provider shall review the Site Control documentation submitted by Interconnection Customer and determine whether the Interconnection Customer has satisfied the applicable Site Control requirements specified in Section 7.2.1, and 7.2.1.1 or 7.2.1.2 of this GIP, as applicable. Transmission Provider shall evaluate the Site Control documentation using sound engineering judgement and in a non-discriminatory manner. In addition, Transmission Provider shall adhere to any guidelines for such analysis as may be included in the Generator Interconnection Business Practices Manual.

In the event that the Transmission Provider determines that the Interconnection Customer does not demonstrate sufficient Site Control, Transmission Provider shall, consistent with Section 7.2.3(ii) of this GIP, provide a written explanation, including the technical reasons for such determination, to Interconnection Customer no later than sixty (60) Calendar Days from the Site Control submission deadline. Any such deficiencies shall be processed as set forth in Section 7.2.3(ii) of this GIP.

7.2.2 Continued Site Control for Generating Facilities; Site Control for Interconnection Facilities and Network Upgrades.

7.2.2.1 Timing Requirements.

- (i) After the start and prior to the end of Interconnection Customer Decision Point II, Interconnection Customer shall submit proof that Interconnection Customer continues to maintain Site Control for the Generating Facility in accordance with terms in Section 7.2.1.1 of this GIP.
- (ii) Prior to conclusion of the Interconnection Customer's GIA execution period, as defined in Section 11 of this GIP, Interconnection Customer shall submit proof of the following: (a) continued Site Control for the Generating Facility in accordance with terms in Section 7.2.1.1 of this GIP; and (b) 50% Site Control for all Interconnection Customer's Interconnection Facilities, and, if applicable (*i.e.*, when the Interconnection Customer is providing the site for such facilities), the Transmission Owner's Interconnection Facilities and Network Upgrades at the POI that the Interconnection Customer will develop.
- (iii) To the extent there is any change in the POI as a result of the Interconnection Facilities Study started in DPP Phase II and completed in DPP Phase III, the Transmission Provider shall provide the Interconnection Customer additional time to procure land rights for the new Interconnection Customer's Interconnection Facilities and, if applicable (*i.e.*, when the Interconnection Customer is providing the site for such facilities), the Transmission Owner's Interconnection Facilities and Network Upgrades at the POI that the Interconnection Customer will develop. The amount of additional time awarded for this purpose shall be determined on a case-by-case basis and in accordance with Section 4.4 of this GIP.

- (iv) After the Interconnection Customer timely satisfies each of the requirements of this Section 7.2.2.1 and execution of the GIA, any changes made to the site layouts and interconnection facility routes shall not be construed as a failure to satisfy the requirements of this Section 7.2.2.1. In the event that the Interconnection Customer makes any modifications to the design of the site layouts or Interconnection Facility routes after execution of this GIA, Interconnection Customer shall: (1) immediately notify the Parties of such changes; and (2) provide to Transmission Provider evidence of continued Site Control for land sufficient to accommodate the changes in site layouts and/or Interconnection Facility routes in accordance with the terms of its GIA.

7.2.2.2 Content Requirements -- Demonstrating Site Control for Applicable Interconnection Facilities and Network Upgrades.

In order to demonstrate Site Control for the Interconnection Customer's Interconnection Facilities and, if applicable (*i.e.*, when the Interconnection Customer is providing the site for such facilities), the Transmission Owner's Interconnection Facilities and Network Upgrades at the POI, Interconnection Customer shall submit a site plan map by the deadline specified in Section 7.2.2.1 of this GIP. Such site plan map shall demonstrate land that is sufficient to accommodate 50% of the total land acreage required for the Interconnection Customer's Interconnection Facilities for the proposed Generating Facility (including the total linear miles for the associated lead line required to electrically interconnect the Generating Facility to the Transmission System) and, if applicable (*i.e.*, when the Interconnection Customer is providing the site for such facilities), 50% of the total land acreage required for the Transmission Owner's Interconnection Facilities and the Network Upgrades at the POI for the proposed Generating Facility.

The Site Plan submitted in accordance with Section 7.2.2 of this GIP shall identify the specific locations within the site for which Site Control is achieved, and those locations for which Site Control is not yet achieved.

To the extent that the Interconnection Customer intends to locate its Interconnection Facilities in a public right of way, Interconnection Customer shall also submit proof of submission of all requisite state and local permits.

Demonstration of Site Control pursuant to this Section 7.2.2.2 shall conform to any technical and documentation requirements as may be specified in the Generator Interconnection Business Practice Manual.

7.2.3. Effect of Deficiencies in Demonstration of Site Control

In the event that the Interconnection Customer fails to timely satisfy any of the requirements of Sections 7.2.1 and 7.2.2 including subsections, as applicable, Interconnection Customer's Interconnection Request shall be deemed withdrawn as set forth below:

- (i) If Interconnection Customer fails to submit all of the documentation and information required by the applicable deadline, Interconnection Customer's Interconnection Request shall immediately be deemed withdrawn as of the date of such deadline without any cure period. Transmission Provider shall provide Interconnection Customer with notice of such withdrawal.
- (ii) If Interconnection Customer has timely submitted all information required by an applicable deadline but the Transmission Provider

determines after review that such submission does not meet the requirements of this GIP, Interconnection Customer's Interconnection Request shall be deemed withdrawn in accordance with Section 3.6 of this GIP.

7.3 Duration of the Definitive Planning Phase

The Definitive Planning Phase will include the following three phases:

- (i) Definitive Planning Phase I
- (ii) Definitive Planning Phase II
- (iii) Definitive Planning Phase III.

7.3.1 Definitive Planning Phase I

The Definitive Planning Phase I will start on a defined, periodic basis.

The Definitive Planning Phase I will include the following steps:

- (i) Attachment X, Appendix 10 Model Review (10 Business Days)
- (ii) Preliminary System Impact Study (65 Calendar Days)
- (iii) Interconnection Customer Decision Point I (15 Business Days)

In addition, Interconnection Customer may request that the Transmission Provider initiate the Interconnection Facilities Study during Definitive Planning Phase I. If Interconnection Customer, Transmission Owner and Transmission Provider agree that such Interconnection Facilities Study should be performed during Definitive Planning Phase I, Transmission Provider shall begin the Interconnection Facilities Study during Definitive Planning Phase I.

7.3.1.1 Purpose

The Definitive Planning Phase I is designed to provide Interconnection Customers or MHVDC Connection Customers with a preliminary detailed analysis of their Interconnection Request's impact on the reliability of the

Transmission System. Prior to the completion of the Preliminary System Impact Study, each impacted Transmission Owner shall make a non-binding indication as to whether the Transmission Owner intends to self-fund each specific Network Upgrade and System Protection Facility identified in the Preliminary System Impact Study. A Transmission Owner's non-binding self-fund election will be included in the Preliminary System Impact Study. Upon completion of the Preliminary System Impact Study, Transmission Provider will provide a detailed reliability analysis, pursuant to Section 7.3.1.5, to each Interconnection Customer or MHVDC Connection Customer that has an Interconnection Request in the Definitive Planning Phase I. Upon receipt of the Preliminary System Impact Study, the Interconnection Customer can either proceed to Definitive Planning Phase II or withdraw its Interconnection Request pursuant to Section 7.3.1.4 of this Attachment X.

7.3.1.2 Model Building and Point of Interconnection Review

Before starting the preliminary Interconnection System Impact Study, Transmission Provider will distribute the study models to Interconnection Customer or MHVDC Connection Customer and Transmission Owner. Interconnection Customer and Transmission Owner may recommend changes to the study model by providing a completed Interconnection Study Model Review Form, Appendix 10 to the GIP within ten (10) Business Days after receipt of the study models. Proposed changes will be incorporated in the study models after mutual agreement between Interconnection Customer or MHVDC Connection Customer, Transmission Owner and Transmission Provider, such agreement not to be unreasonably withheld. Transmission Provider shall thereafter begin the Preliminary System Impact Study. Failure of Interconnection Customer or MHVDC Connection Customer to provide the completed Interconnection Study Model Review Form within ten (10) Business Days will result in

withdrawal of the Interconnection Request pursuant to Section 3.6 of this GIP.

7.3.1.3 Scope of the Preliminary System Impact Study

The Preliminary System Impact Study shall evaluate the impact of the proposed Interconnection Request(s) in the Definitive Planning Phase I on the reliability and safety of the Transmission System. The Preliminary System Impact Study will consider the Base Case as well as all generating and MHVDC facilities (and with respect to subpart iv below, any identified Network Upgrades, System Protection Facilities, Distribution Upgrades, Generator Upgrades, Common Use Upgrades, Shared Network Upgrades, or, if such upgrades have been determined, upgrades on Affected Systems, associated with such higher queued Interconnection Requests) that, on the date the Preliminary System Impact Study is commenced: (i) are interconnected to the Transmission System or Distribution System; (ii) are interconnected or queued to interconnect to Affected Systems and may have an impact on the Interconnection Request; (iii) have Interconnection Request is part of the same group; and (iv) have executed a GIA or a pending unexecuted GIA on file at FERC or a TCA pursuant to which Transmission Provider has granted Injection Rights.

The Preliminary System Impact Study will consist of a power flow analysis. If Transmission Provider determines in accordance with Good Utility Practice that any voltage stability analysis is needed, the Preliminary System Impact Study may include voltage stability analysis. The Preliminary System Impact Study will also include analysis needed to determine the Generating Facility's reactive power capability required to maintain the Transmission Owner's voltage schedule and power factor criteria at the Point of Interconnection.

Determination of the full scope of the Preliminary System Impact Study in the Definitive Planning Phase I will be on a non-discriminatory basis per the methodologies listed in the Generator Interconnection Business Practices Manual. Transmission Provider shall use Reasonable Efforts to complete the Preliminary System Impact Study within sixty-five (65) Calendar Days.

The Preliminary System Impact Study will state the assumptions upon which it is based, state the results of the analyses, and provide the requirements or potential impediments to providing the requested Interconnection Service, including a preliminary indication of the cost and length of time that would be necessary to correct any problems identified in those analyses and implement the interconnection. The Preliminary System Impact Study will provide a preliminary list of facilities (including Interconnection Facilities, Connection Facilities, Network Upgrades, Generator Upgrades, Common Use Upgrades, and Shared Network Upgrades) that are required as a result of the Interconnection Request and a preliminary non-binding good faith estimate of cost and a non-binding good faith estimated time to construct. For purposes of determining necessary interconnection facilities and network upgrades, the Preliminary System Impact Study shall consider the level of Interconnection Service requested by the Interconnection Customer, unless otherwise required to study the full Generating Facility Capacity due to safety or reliability concerns.

At the request of Interconnection Customer or MHVDC Connection Customer, or at any time Transmission Provider determines that it will not meet the required time frame for completing the Preliminary System Impact Study, Transmission Provider shall notify Interconnection

Customer or MHVDC Connection Customer regarding the following:

- (i) Schedule status of the Preliminary System Impact Study
- (ii) Estimated completion date and an explanation of the reasons why additional time is required.
- (iii) Revised cost estimate of study deposits with an explanation of the reasons why cost estimates were revised. Interconnection Customer or MHVDC Connection Customer shall then provide within thirty (30) Calendar Days of Transmission Provider's notice, an additional deposit equal to the difference between the initial and revised cost estimate. Failure of Interconnection Customer or MHVDC Connection Customer to provide this additional deposit will result in withdrawal of the Interconnection Request pursuant to Section 3.6 of this GIP.

7.3.1.4 Interconnection Customer Decision Point I

All Interconnection Customers or MHVDC Connection Customers with Interconnection Requests in the Definitive Planning Phase I will pass through Interconnection Customer Decision Point I. The Interconnection Customer Decision Point I will last for fifteen (15) Business Days beginning with the receipt of the Preliminary System Impact Study analysis including estimated upgrades and costs, as applicable.

Transmission Provider shall notify all Interconnection Customers or MHVDC Connection Customers at the beginning of Interconnection Customer Decision Point I that the Interconnection Customer or MHVDC Connection Customer shall have fifteen (15) Business Days to decide whether it wants to proceed to the Definitive Planning Phase II or withdraw its Interconnection Request. During Interconnection Customer Decision Point I, an Interconnection Customer or MHVDC Connection Customer may waive its right to elect the option to build or may defer the decision to the deadlines specified in Sections 7.3.2.5 & 7.3.3.5; failure to

provide a written response will be deemed to be a deferral. During Interconnection Customer Decision Point I, an Interconnection Customer or MHVDC Connection Customer may reduce the size of its Interconnection Request by as much as 100 percent through either (1) a decrease in plant size or (2) a decrease in Interconnection Service level (consistent with the process described in Section 3.1) accomplished by applying Transmission Provider-approved injection-limiting equipment. However, because NR Interconnection Service includes an equivalent amount of ER Interconnection Service, a reduction in NRIS level will not reduce the ERIS level unless a corresponding reduction in ERIS level is requested. The total amount of NRIS requested shall not exceed the amount of ERIS requested. The required Definitive Planning Phase II Milestone calculation shall be based on the DPP Phase I results. If the Interconnection Customer or MHVDC Connection Customer decides to withdraw its Interconnection Request during, or any time before, the end of Interconnection Customer Decision Point I, then the Transmission Provider will refund Interconnection Customer with 50% of Definitive Planning Phase I milestone (M2) and any remaining study deposits pursuant to Section 7.6. Any withdrawal during the Definitive Planning Phase I, but prior to Interconnection Customer Decision Point I, will neither be processed nor deemed withdrawn until Interconnection Customer Decision Point I.

If the Interconnection Customer or MHVDC Connection Customer decides to proceed to the Definitive Planning Phase II, then it will be required to pay Definitive Planning Phase II milestone (M3), pursuant to Section 7.3.1.4.1, prior to the end of Interconnection Customer Decision Point I.

If the Transmission Provider does not receive written confirmation from Interconnection Customer or MHVDC Connection Customer on whether it wants to proceed to the Definitive Planning Phase II or withdraw its Interconnection Request, during the Interconnection Customer Decision Point I, the Transmission Provider will deem the Interconnection Request as withdrawn without any cure period, provide written notice to Interconnection Customer or MHVDC Connection Customer of the deemed withdrawal and an explanation of the reasons for such deemed withdrawal, and refund Interconnection Customer's Definitive Planning Phase I milestone (M2) and any remaining study deposits pursuant to Section 3.6. If the Transmission Provider does not receive Definitive Planning Phase I (M2) milestone payment during the Interconnection Customer Decision Point I, the Transmission Provider shall provide written notice to Interconnection Customer or MHVDC Connection Customer of such failure. Upon receipt of such notice, the Interconnection Customer or MHVDC Connection Customer shall have three (3) Business Days to provide the Definitive Planning Phase I (M2) milestone payment after which period the Transmission Provider will deem the Interconnection Customer or MHVDC Connection Customers as withdrawn without any further cure period if the Definitive Planning Phase I (M2) milestone payment has not been received. After Interconnection Customer or MHVDC Connection Customer enters the Definitive Planning Phase II, the Definitive Planning Phase I (M2) milestone payment becomes 100% non-refundable, pursuant to Section 7.8.

7.3.1.4.1 Definitive Planning Phase II Milestone (M3)

Calculation.

The Definitive Planning Phase II milestone (M3) will be in the form of either cash or irrevocable letter of credit reasonably

acceptable to Transmission Provider. Interconnection Customers and MHVDC Connection Customers may replace cash milestone payments with a letter of credit and may replace letters of credit with cash. The Definitive Planning Phase II milestone (M3) will be ten percent (10%) of the amount of Network Upgrades identified in the Preliminary System Impact Study less the amount previously provided at M2, but in no event shall the M3 be less than zero dollars.

7.3.2 Definitive Planning Phase II

The Definitive Planning Phase II start the next day after the fifteen (15) Business Days Interconnection Customer Decision Point I window expires.

The Definitive Planning Phase II will include the following steps:

- (i) Model Review Period (6 Business Days)
- (ii) Revised System Impact Study (75 Calendar Days)
- (iii) Interconnection Customer Decision Point II (15 Business Days)

Transmission Owner shall also use Reasonable Efforts to complete the Interconnection Facilities Study within ninety (90) Calendar Days. The Interconnection Facilities Study may be initiated during Definitive Planning Phase I, in accordance with Section 7.3.1 of this GIP. To the extent the Interconnection Facilities Study is performed during Definitive Planning Phase II, such study shall be performed concurrently with tasks (i) – (iii).

7.3.2.1 Purpose

The Definitive Planning Phase II is designed to provide Interconnection Customers and MHVDC Connection Customers a revised and a detailed analysis of their Interconnection Request's impact on the reliability of the

Transmission System after incorporating updated generation and MHVDC assumptions due to potential withdrawal of Interconnection Requests during Definitive Planning Phase I. Except as otherwise provided in Section 5.8, prior to the completion of the Revised System Impact Study, each impacted Transmission Owner shall indicate whether the Transmission Owner intends to self-fund each specific Network Upgrade and System Protection Facility identified in the Revised System Impact Study. A Transmission Owner's self-fund election will be included in the Revised System Impact Study. Except as otherwise provided in Section 5.8, the Transmission Owner's failure to provide its indication prior to the completion of the Revised System Impact Study shall constitute a waiver of the Transmission Owner's option to elect to self-fund each Network Upgrade and System Protection Facility identified in the Revised System Impact Study. Upon completion of the Revised System Impact Study, Transmission Provider will provide a detailed reliability analysis, pursuant to Section 7.3.2.5, to each Interconnection Customer or MHVDC Connection Customer that has an Interconnection Request in the Definitive Planning Phase II. Upon receipt of the Revised System Impact Study, the Interconnection Customer or MHVDC Connection Customer can either proceed to Definitive Planning Phase III or withdraw its Interconnection Request pursuant to Section 7.3.2.4 of this Attachment X.

7.3.2.2 Model Building

Before starting the Revised System Impact Study, Transmission Provider will distribute the study models to Interconnection Customer or MHVDC Connection Customer and Transmission Owner. The Transmission Provider will update the study models built during Definitive Planning Phase I, pursuant to Section 7.3.1.2, by removing all Interconnection Requests that did not proceed to the Definitive Planning Phase II. The Transmission Provider will distribute the revised study models to the

Transmission Owner and Interconnection Customer or MHVDC Connection Customer for final review. Any comments or corrections from the Transmission Owner or Interconnection Customer or MHVDC Connection Customer to the revised study models must be submitted to the Transmission Provider within six (6) Business Days after receipt of the revised study models. Should the Transmission Owner or Interconnection Customer or MHVDC Connection Customer fail to provide feedback on the revised study models within six (6) Business Days, Transmission Provider will deem the models acceptable. Transmission Provider shall thereafter begin the Revised System Impact Study.

7.3.2.3 Scope of the Interconnection System Impact Study

The Revised System Impact Study shall provide an updated, detailed analysis of their Interconnection Request's impact on the reliability of the Transmission System after incorporating updated generation and MHVDC assumptions due to potential withdrawal of Interconnection Requests during Definitive Planning Phase I. The Revised System Impact Study shall follow the procedures as the Preliminary System Impact Study described in Definitive Planning Phase I Section 7.3.1.3, as well as include a short circuit analysis and stability analysis. Transmission Provider shall include in the Revised System Impact Study an analysis of the upgrades on Distribution System, if applicable, and Affected Systems. If Transmission Provider determines in accordance with Good Utility Practice that any such analyses are needed, any stability analysis performed in a Revised System Impact Study may include transient stability, large and small signal, sub-synchronous stability, dynamic voltage stability, mid- and long-term stability, voltage flicker analyses and excessive neutral current. Transmission Provider shall utilize existing studies to the extent practicable in performing the Revised System Impact Study. For purposes of determining necessary Interconnection Facilities

and Network Upgrades, the Revised System Impact Study shall consider the level of Interconnection Service requested by the Interconnection Customer, unless otherwise required to study the full Generating Facility Capacity due to safety or reliability concerns. Transmission Provider shall use Reasonable Efforts to complete the Revised System Impact Study within seventy-five (75) Calendar Days.

At the request of Interconnection Customer or MHVDC Connection Customer, or at any time Transmission Provider determines that it will not meet the required time frame for completing the Revised System Impact Study, Transmission Provider shall notify Interconnection Customer or MHVDC Connection Customer regarding the following:

- (i) Schedule status of the Revised System Impact Study.
- (ii) Estimated completion date and an explanation of the reasons why additional time is required.
- (iii) Revised cost estimate of study deposits with an explanation of the reasons why cost estimates were revised. Interconnection Customer or MHVDC Connection Customer shall then provide within thirty (30) Calendar Days of Transmission Provider's notice, an additional deposit equal to the difference between the initial and revised cost estimate. Failure of Interconnection Customer or MHVDC Connection Customer to provide this additional deposit will result in withdrawal of the Interconnection Request pursuant to Section 3.6 of this GIP.

7.3.2.4 Interconnection Customer Decision Point II

All Interconnection Customers and MHVDC Connection Customers with Interconnection Requests in the Definitive Planning Phase II will pass through Interconnection Customer Decision Point II. The Interconnection Customer Decision Point II will last for fifteen (15) Business Days

beginning with the receipt of the Revised System Impact Study analysis and Affected System analysis, including estimated upgrades and costs as applicable. Transmission Provider shall notify all Interconnection Customers and MHVDC Connection Customers at the beginning of Interconnection Customer Decision Point II that the Interconnection Customer or MHVDC Connection Customer shall have fifteen (15) Business Days to decide whether it wants to proceed to the Definitive Planning Phase III or withdraw its Interconnection Request. During Interconnection Customer Decision Point II, an Interconnection Customer or MHVDC Connection Customer may reduce the size of its Interconnection Request for ERIS by as much as an additional ten percent (10%) compared to what was studied in DPP Phase II, through either (1) a decrease in plant size or (2) a decrease in Interconnection Service level (consistent with the process described in Section 3.1) accomplished by applying Transmission Provider-approved injection-limiting equipment. Additionally, an Interconnection Customer may request to reduce the amount of NRIS by as much as 100% independent of any requested reduction in ERIS. However, because NR Interconnection Service includes an equivalent amount of ER Interconnection Service, a reduction in NRIS level will not reduce the ERIS level unless a corresponding reduction in ERIS level is requested. The total amount of NRIS requested shall not exceed the amount of ERIS requested. The required M4 milestone calculation shall be based on the DPP Phase II results.

If the Interconnection Customer or MHVDC Connection Customer decides to withdraw its Interconnection Request during, or any time before, the end of Interconnection Customer Decision Point II, then the Transmission Provider will refund Interconnection Customer's Definitive Planning Phase II milestone (M3) and any remaining study deposits pursuant to Section 7.8. Any withdrawal during the Definitive Planning

Phase II, but prior to Interconnection Customer Decision Point II, will neither be processed nor deemed withdrawn until Interconnection Customer Decision Point II.

If the Interconnection Customer or MHVDC Connection Customer decides to proceed to the Definitive Planning Phase III, then it will be required to pay Definitive Planning Phase III milestone (M4), pursuant to Section 7.3.2.4.1, as well as provide evidence of continued Site Control for the proposed Generating Facility prior to the end of Interconnection Customer Decision Point II pursuant to Section 7.2.2.

If the Transmission Provider does not receive written confirmation from Interconnection Customer or MHVDC Connection Customer on whether it wants to proceed to the Definitive Planning Phase III or withdraw its Interconnection Request, during the Interconnection Customer Decision Point II, the Transmission Provider will deem the Interconnection Request as withdrawn without any cure period, provide written notice to Interconnection Customer or MHVDC Connection Customer of the deemed withdrawal and an explanation of the reasons for such deemed withdrawal, and refund Interconnection Customer's Definitive Planning Phase II milestone (M3) and any remaining study deposits pursuant to Section 7.6. If the Transmission Provider does not receive Definitive Planning Phase II (M3) milestone payment during the Interconnection Customer Decision Point II, the Transmission Provider shall provide written notice to Interconnection Customer or MHVDC Connection Customer of such failure. Upon receipt of such notice, the Interconnection Customer or MHVDC Connection Customer shall have three (3) Business Days to provide the Definitive Planning Phase II (M3) milestone payment after which period the Transmission Provider will deem the Interconnection Customer or MHVDC Connection Customers as

withdrawn without any further cure period if the Definitive Planning Phase II milestone (M3) payment has not been received. After Interconnection Customer or MHVDC Connection Customer enters the Definitive Planning Phase III, the Definitive Planning Phase II (M3) milestone payment becomes 100% non-refundable, pursuant to Section 7.8.

7.3.2.4.1 Definitive Planning Phase III Milestone (M4)

Calculation.

The Definitive Planning Phase III milestone (M4) will be in the form of either cash or irrevocable letter of credit reasonably acceptable to Transmission Provider. Interconnection Customers and MHVDC Connection Customers may replace cash milestone payments with a letter of credit and may replace letters of credit with cash. The Definitive Planning Phase III milestone (M4) will be twenty percent (20%) of the amount of Network Upgrades identified in the Revised System Impact Study less any payments made as M2 and M3, but in no event shall the M4 be less than zero dollars.

7.3.2.4.2 True-down of Milestone Payments.

Within ten (10) Business Days from the start of Definitive Planning Phase III, Transmission Provider shall notify the Interconnection Customer if the total posted milestone payments (*i.e.*, the sum of the M2, M3 and M4 payments) for the Interconnection Request exceed twenty percent (20%) of the total Network Upgrade cost assigned to such Interconnection Request in the Revised System Impact Study. Transmission Provider shall refund such excess amounts to the Interconnection Customer as soon as practicable.

7.3.2.5 Scope of Interconnection Facilities Study.

The first portion of the Interconnection Facilities Study focusing on the Interconnection Facilities or the Connection Facilities for the project will start no later than the first day of Definitive Planning Phase II in accordance with Section 7.3.2 of this GIP. This portion of the Interconnection Facilities Study will identify estimates for cost and the time required to construct the Interconnection Facilities or the Connection Facilities, including cost estimates that the Transmission Owner will impose if the Interconnection Customer elects to build (e.g. oversight or management costs). Within 10 Business Days of the Interconnection Customer's receipt of the draft Interconnection Facilities Study, unless the Interconnection Customer has waived its option to build under Section 7.3.1.4, the Interconnection Customer shall either elect the option to build or waive the option to build. If the Interconnection Customer elects the option to build, at the same time it makes that election, it must also supply completed cost estimates for Exhibits A7 and A8 as described in Business Practices Manual 15 for the Interconnection Facilities and Stand-Alone Network Upgrades that it has elected to build. Failure to provide a written response or a failure to provide the required cost estimates will be deemed to be a waiver of the Interconnection Customer's option to build. Nothing in this Section shall be interpreted to prohibit an Interconnection Customer from, with Transmission Owner's consent, from waiving its option to build at a later time prior to GIA execution, but an Interconnection Customer is not entitled to reverse its waiver. Transmission Provider shall use Reasonable Efforts to complete this portion of the Interconnection Facilities Study within ninety (90) Calendar Days.

7.3.3 Definitive Planning Phase III

The Definitive Planning Phase III will start the day after the expiration of the fifteen (15) Business Day Interconnection Customer Decision Point II.

The Definitive Planning Phase III will include the following steps:

- (i) Model Review (6 Business Days)
- (ii) Final System Impact Study (50 Calendar Days)
- (iii) Interconnection Facilities Study for Network Upgrades (90 Calendar Days)

7.3.3.1 Purpose

The Definitive Planning Phase III is designed to provide Interconnection Customers and MHVDC Connection Customers a final, detailed analysis of their Interconnection Request's impact on the reliability of the Transmission System after incorporating updated generation and MHVDC assumptions due to potential withdrawal of Interconnection Requests during Definitive Planning Phase II. For each specific Network Upgrade and System Protection Facility that the Transmission Owner did not elect to self-fund as a part of the Revised System Impact Study, the Transmission Owner shall not be permitted to further revise its election after the completion of the Revised System Impact Study. For each specific Network Upgrade and System Protection Facility that the Transmission Owner elected to self-fund as a part of the Revised System Impact Study, each impacted Transmission Owner shall confirm or revise its self-fund election prior to the completion of the Final System Impact Study. In the event that a new Network Upgrade or System Protection Facility is identified in the Final System Impact Study that had not previously been identified in the Revised System Impact Study, each impacted Transmission Owner shall make a binding indication as to whether the Transmission Owner intends to self-fund the new Network Upgrade and System Protection Facility prior to the completion of the

Final System Impact Study. A Transmission Owner's self-fund election will be included in the Final System Impact Study. Except as otherwise provided in Section 5.8, a Transmission Owner's failure to provide its self-fund election prior to the completion of the Final System Impact Study shall constitute a waiver of the Transmission Owner's option to self-fund each Network Upgrade and System Protection Facility identified in the Final System Impact Study. Upon completion of the Final System Impact Study, Transmission Provider will perform Facilities Study pursuant to Section 7.3.3.5. Upon completion of the Interconnection Facilities Study, Transmission Provider will tender a draft *pro forma* Generator Interconnection Agreement to the Interconnection Customer and Transmission Owner.

7.3.3.2 Model Building

Before starting the Final System Impact Study, Transmission Provider will distribute the study models to Interconnection Customer or MHVDC Connection Customer and Transmission Owner. The Transmission Provider will update the study models built during Definitive Planning Phase II, pursuant to Section 7.3.2.2, by removing all Interconnection Requests that did not proceed to the Definitive Planning Phase III. The Transmission Provider will distribute the revised study models to the Transmission Owner and Interconnection Customer or MHVDC Connection Customer for final review. Any comments or corrections from the Transmission Owner or Interconnection Customer or MHVDC Connection Customer to the revised study models must be submitted to the Transmission Provider within six (6) Business Days after receipt of the revised study models. Should the Transmission Owner or Interconnection Customer or MHVDC Connection Customer fail to provide feedback on the revised study models within six (6) Business Days, Transmission

Provider will deem the models acceptable. Transmission Provider shall thereafter begin the Final System Impact Study.

7.3.3.3 Scope of the Final System Impact Study

The Final System Impact Study shall provide a final, detailed analysis of their Interconnection Request's impact on the reliability of the Transmission System after incorporating updated generation assumptions due to potential withdrawal of Interconnection Requests during Definitive Planning Phase II. The Final System Impact Study shall follow the procedures as the Revised System Impact Study described in Definitive Planning Phase II Section 7.3.2.3. For purposes of determining necessary Interconnection Facilities and Network Upgrades, the Final System Impact Study shall consider the level of Interconnection Service requested by the Interconnection Customer, unless otherwise required to study the full Generating Facility Capacity due to safety or reliability concerns. Transmission Provider shall utilize existing studies to the extent practicable in performing the Final System Impact Study.

The Final System Impact Study will start the day after the completion of the Model Review in the Definitive Planning Phase III. Transmission Provider shall use Reasonable Efforts to complete the Final System Impact Study within fifty (50) Calendar Days.

At the request of Interconnection Customer or MHVDC Connection Customer, or at any time Transmission Provider determines that it will not meet the required time frame for completing the Final System Impact Study, Transmission Provider shall notify Interconnection Customer or MHVDC Connection Customer regarding the following:

- (i) Schedule status of the Final System Impact Study.
- (ii) Estimated completion date and an explanation of the reasons why

additional time is required.

- (iii) Revised cost estimate of study deposits with an explanation of the reasons why cost estimates were revised. Interconnection Customer or MHVDC Connection Customer shall then provide within thirty (30) Calendar Days of Transmission Provider's notice, an additional deposit equal to the difference between the initial and revised cost estimate. Failure of Interconnection Customer or MHVDC Connection Customer to provide this additional deposit will result in withdrawal of the Interconnection Request pursuant to Section 3.6 of this GIP.

7.3.3.4 Scope of Interconnection Facilities Study.

Transmission Provider may begin the second portion of the Interconnection Facilities Study for that Network Upgrade prior to the completion of the Final System Impact Study. The Interconnection Customer(s) responsible for a Network Upgrade may request that the second portion of the Interconnection Facilities Study begin after the completion of Interconnection Customer Decision Point II and prior to the completion of the Final System Impact Study. MISO shall start the second portion of the Interconnection Facilities Study no later than the day following the posting of the Final System Impact Study report. This phase will identify estimates for the cost and time required to build necessary Network Upgrades that are identified in the Final System Impact Study. Transmission Provider shall use Reasonable Efforts to complete this portion of the Interconnection Facilities Study within ninety (90) Calendar Days from the start date of the Interconnection Facilities Study.

The Interconnection Facilities Study, in its entirety, shall specify and estimate the cost of the required equipment, engineering, procurement and construction work needed to implement the Network Upgrades and

Interconnection Facilities or Connection Facilities identified in the Final System Impact Study in accordance with Good Utility Practice to physically and electrically connect the Interconnection Facilities or the Connection Facilities to the Transmission or Distribution System, as applicable, as well as that equipment, to the extent known and available in accordance with Section 3.5 of these GIP, required by Affected Systems to accommodate the interconnection of the Generating Facility or the MHVDC Transmission Line.

The Interconnection Facilities Study shall also identify the electrical switching configuration of the connection equipment, including, without limitation: the transformer, switchgear, meters, and other station equipment; the nature and estimated cost of any Transmission Owner's Interconnection Facilities or Connection Facilities and Network Upgrades, Distribution Upgrades, Generator Upgrades, Common Use Upgrades, and to the extent known and available in accordance with Section 3.5 of the GIP, upgrades on Affected Systems necessary to accomplish the interconnection; and an estimate of the time required to complete the construction and installation of such facilities. The Interconnection Facilities Study will also identify any potential control equipment for requests for Interconnection Service that are lower than the Generating Facility Capacity.

7.3.3.5 Interconnection Facilities Study Procedures.

Transmission Provider shall coordinate the Interconnection Facilities Study with any Affected System pursuant to Section 3.5 of this GIP. Transmission Provider shall utilize existing studies to the extent practicable in performing the Interconnection Facilities Study. The Interconnection Facilities Study for an Interconnection Request shall be typically performed as a Group Study with respect to Common Use

Upgrades and/or Interconnection Facilities or Connection Facilities common to more than one Interconnection Request.

At the request of Interconnection Customer or MHVDC Connection Customer or at any time Transmission Provider determines that it will not meet the required time frame for completing the Interconnection Facilities Study, Transmission Provider shall notify Interconnection Customer or MHVDC Connection Customer as to the schedule status of the Interconnection Facilities Study. If Transmission Provider is unable to complete the Interconnection Facilities Study within the time required, Transmission Provider shall notify Interconnection Customer and provide an estimated completion date and an explanation of the reasons why additional time is required. If Transmission Provider is unable to complete the Interconnection Facilities Study with the study deposit provided by Interconnection Customer or MHVDC Connection Customer, Transmission Provider shall notify Interconnection Customer or MHVDC Connection Customer and provide a revised cost estimate with an explanation of the reasons why. Interconnection Customer or MHVDC Connection Customer shall then provide within fifteen (15) Calendar Days of Transmission Provider's notice, an additional deposit equal to the difference between the initial and revised cost estimate. Failure of Interconnection Customer or MHVDC Connection Customer to provide this additional deposit will result in withdrawal of the Interconnection Request pursuant to Section 3.6 of this GIP.

Interconnection Customer or MHVDC Connection Customer and Transmission Owner may, within fifteen (15) Calendar Days after receipt of the draft Interconnection Facilities report and supporting documentation, provide written comments to Transmission Provider, which Transmission Provider shall include in the final Interconnection

Facilities report. If the draft Interconnection Facilities report contains a Stand-Alone Network Upgrade, unless the Interconnection Customer has waived its option to build under Section 7.3.1.4, the cost estimate shall include the cost that the Transmission Owner will impose if the Interconnection Customer elects to build (e.g. oversight or management costs). Unless the Interconnection Customer has waived its option to build under Section 7.3.1.4, the Interconnection Customer shall either elect the option to build or waive the option to build Stand-Alone Network Upgrades identified in the second portion of the Interconnection Facilities Study within 15 calendar days of receiving the draft Interconnection Facilities report. If the Interconnection Customer elects the option to build, at the same time it makes that election, it must also supply completed cost estimates for Exhibits A7 and A8 as described in the Business Practices Manual 15 for the Stand-Alone Network Upgrades that it has elected to build. Failure to provide a written response or a failure to provide the required cost estimates will be deemed to be a waiver of the Interconnection Customer's option to build. Nothing in this Section shall be interpreted to prohibit an Interconnection Customer, with Transmission Owner's consent, from waiving its option to build at a later time prior to GIA execution, but an Interconnection Customer is not entitled to reverse its waiver. If Interconnection Customer elects to build, Transmission Provider shall include that election in the final Interconnection Facilities report. Transmission Provider shall issue the final Interconnection Facilities report and supporting documentation within ten (10) Calendar Days of receiving the Interconnection Customer's or the MHVDC Connection Customer's comments or promptly upon receiving Interconnection Customer's or the MHVDC Connection Customer's statement that it will not provide comments. Transmission Provider may reasonably extend such fifteen-day period upon notice to Interconnection Customer or MHVDC Connection Customer if the Interconnection

Customer's or the MHVDC Connection Customer's comments require Transmission Provider to perform additional analyses or make other significant revisions prior to the issuance of the final Interconnection Facilities Report. Upon request, Transmission Provider shall provide Interconnection Customer or MHVDC Connection Customer supporting documentation, work papers, and databases or data developed in the preparation of the Interconnection Facilities Study, subject to confidentiality arrangements consistent with Section 13.1.

Interconnection Customer or MHVDC Connection Customer shall maintain as confidential any information that is provided by Transmission Provider and identified 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 Section 13.1.

7.4 Meeting with Transmission Provider.

Within ten (10) Business Days of providing draft GIA or TCA appendices and, as applicable, associated draft appendices for the related FCA(s) and/or MPFCA(s) and supporting documentation to Interconnection Customer, Transmission Owner and Interconnection Customer may meet to discuss the results of the Interconnection Facilities Study.

7.5 Interconnection Study Restudy.

If a restudy of any Interconnection Study is required because an Interconnection Request withdraws or is deemed to have withdrawn prior to all GIAs, TCAs, FCAs, and/or MPFCAs, as applicable, for each respective Definitive Planning Phase cycle have been executed or filed unexecuted with the Federal Energy Regulatory Commission, Transmission Provider shall provide notice of restudy as necessary. The Transmission Provider's notice shall include a summary of a preliminary analysis supporting the need for an Interconnection Study restudy, an explanation of why an Interconnection Study restudy is required and a good faith

estimate of the cost to perform the Interconnection Study restudy. The Interconnection Study restudy shall be performed subject to the GIP and Business Practices Manuals in effect at the time notice is provided by Transmission Provider. Interconnection Customer or MHVDC Connection Customer shall notify Transmission Provider within five (5) Business Days whether Interconnection Customer or MHVDC Connection Customer wishes to proceed with the Interconnection Study restudy or withdraw its Interconnection Request. Transmission Provider shall deem Interconnection Customer's or MHVDC Connection Customer's failure to notify Transmission Provider to proceed to perform the Interconnection Study restudy as Interconnection Customer's or MHVDC Connection Customer's withdrawal of its Interconnection Request in accordance with Section 3.6 of this GIP. Transmission Provider shall use Reasonable Efforts to complete such Interconnection Study restudy no later than sixty (60) Calendar Days from the date of notice. Transmission Provider may elect to perform any Interconnection Study restudy of Network Upgrades common to more than one Interconnection Request as a Group Study.

7.6 Refunds

7.6.1 Refunds of Study Deposits

Transmission Provider shall charge and Interconnection Customer or MHVDC Connection Customer shall pay the actual costs of the Interconnection Studies. Any difference between the study deposit and the actual cost of the applicable Interconnection Study shall be paid by or refunded to, except as otherwise provided herein, the Interconnection Customer. Any invoices for Interconnection Studies shall include a detailed and itemized accounting of the cost of each Interconnection Study. Interconnection Customer or MHVDC Connection Customer shall pay any such undisputed costs within thirty (30) Calendar Days of receipt of an invoice. Transmission Provider shall not be obligated to perform or

continue to perform any studies unless Interconnection Customer or MHVDC Connection Customer has paid all undisputed amounts in compliance herewith.

All charges associated with performing Interconnection Studies, during all three phases of the Definitive Planning Phase, are the responsibility of Interconnection Customers or MHVDC Connection Customers with active Interconnection Requests during each respective Definitive Planning Phase.

If the Interconnection Customer or MHVDC Connection Customer withdraws its Interconnection Request any time before the end of Interconnection Customer Decision Point I, the Transmission Provider will refund to the Interconnection Customer or MHVDC Connection Customer any unused portion of the study deposits. Any Interconnection Customer or MHVDC Connection Customer that withdraws its Interconnection Request, or is deemed to be withdrawn, during Definitive Planning Phase I but before Interconnection Customer Decision Point I is responsible for its pro rata portion of the group Interconnection Study costs for Definitive Planning Phase I. Any Interconnection Customer or MHVDC Connection Customer that withdraws its Interconnection Request, or is deemed to be withdrawn, prior to the expiration of Interconnection Customer Decision Point I will not be responsible to fund any Interconnection Studies that take place during or after the start of the Definitive Planning Phase II of the GIP.

If the Interconnection Customer or MHVDC Connection Customer withdraws its Interconnection Request any time after Interconnection Customer Decision Point I, but before the expiration of the Interconnection Customer Decision Point II, then the Transmission

Provider will refund to the Interconnection Customer or M HVDC Connection Customer any unused portion of the study deposits. Any Interconnection Customer or M HVDC Connection Customer that withdraws its Interconnection Request, or is deemed to be withdrawn, during Definitive Planning Phase II but before Interconnection Customer Decision Point II is responsible for its pro rata portion of the group Interconnection Study costs for Definitive Planning Phase II. Any Interconnection Customer or M HVDC Connection Customer that withdraws its Interconnection Request prior to the expiration of Interconnection Customer Decision Point II will not be responsible to fund any Interconnection Studies that take place during or after the start of Definitive Planning Phase III of the GIP.

If the Interconnection Customer or M HVDC Connection Customer withdraws its Interconnection Request any time during Definitive Planning Phase III of the GIP, and if the Transmission Provider determines that an Interconnection Study restudy is required, then the withdrawing Interconnection Customer or M HVDC Connection Customer will be responsible to fund all such restudies in Definitive Planning Phase III of the GIP, up to the amount of that Interconnection Customer's total study deposit. However, if the Transmission Provider determines that no Interconnection Study restudy is required due to the withdrawal of Interconnection Customer's or M HVDC Connection Customer's Interconnection Request, then the withdrawing Interconnection Customer or M HVDC Connection Customer will not be responsible to fund any further Interconnection Studies during Definitive Planning Phase III of the GIP and the Transmission Provider shall refund to the Interconnection Customer or M HVDC Connection Customer any unused portion of the study deposit paid to enter the Definitive Planning Phase.

7.6.2 Refunds of Definitive Planning Phase Milestones (M2, M3, M4)

7.6.2.1 Refunds of Definitive Planning Phase entry milestone (M2)

Interconnection Customers and MHVDC Connection Customers are eligible to receive one hundred percent (100%) refund of the Definitive Planning Phase entry milestone (M2) only when the Interconnection Request is withdrawn or deemed withdrawn prior to the start of Definitive Planning Phase I or when Transmission Provider has completed review of Site Control sufficiency pursuant to Section 7.2.1.3 of the GIP and the Interconnection Request is deemed withdrawn due to Site Control deficiencies. Interconnection Customers and MHVDC Connection Customers are eligible to receive fifty percent (50%) refund of the Definitive Planning Phase entry milestone (M2) only when the Interconnection Request is withdrawn or deemed withdrawn during Definitive Planning Phase I or at any time before or at the end of Interconnection Customer Decision Point I. The remaining 50% of the Definitive Planning Phase entry milestone (M2) becomes non-refundable pursuant to Section 7.8 of the GIP. If the Interconnection Request is withdrawn any time after the Interconnection Customer Decision Point I, then the entire Definitive Planning Phase entry milestone (M2) becomes non-refundable pursuant to Section 7.8 of the GIP.

7.6.2.2 Refund of Definitive Planning Phase II milestone (M3)

Interconnection Customers and MHVDC Connection Customers are eligible to receive one hundred percent (100%) refund of the Definitive Planning Phase II milestone (M3) only when the Interconnection Request is withdrawn or deemed withdrawn after Interconnection Customer Decision Point I and before or at the end of Interconnection Customer Decision Point II. If the Interconnection Request is withdrawn any time after the end of Interconnection Customer Decision Point II, then the

Definitive Planning Phase II milestone (M3) becomes non-refundable pursuant to Section 7.8 of the GIP.

7.6.2.3 Refund of Definitive Planning Phase II milestone (M4)

If the Interconnection Customer or MHVDC Connection Customer decides to withdraw its Interconnection Request any time after entering the Definitive Planning Phase III, then the Definitive Planning Phase III milestone (M4) becomes non-refundable pursuant to Section 7.8 of the GIP.

7.6.2.4 Withdrawal and refund due to increase in Network Upgrade costs

Milestone payments will be refunded in the event the Interconnection Customer or MHVDC Connection Customer withdraws because the total Network Upgrade cost estimates in the Revised System Impact Study increased by more than twenty-five percent (25%) and more than \$10,000 per MW over the Preliminary System Impact Study as a result of Transmission Provider, or Transmission Owner error. To obtain a refund, Interconnection Customer must withdraw at the end of Interconnection Customer Decision Point II.

Milestone payments will be refunded in the event the Interconnection Customer or MHVDC Connection Customer withdraws because the total Network Upgrade cost estimates in the Final System Impact Study increased by more than twenty-five percent (25%) and more than \$10,000 per MW over the Revised System Impact Study as a result of Transmission Provider, Affected System or Transmission Owner error. To obtain a refund, Interconnection Customer must withdraw within five Business Days of posting the results of the Final System Impact Study.

Milestone payments will also be refunded in the event the Interconnection Customer or MHVDC Connection Customer withdraws and the total Network Upgrade cost estimates in the Interconnection Facilities Study increased by more than twenty-five percent (25%) and more than \$10,000 per MW over the Network Upgrade cost estimates in the Final System Impact Study. To obtain a refund, Interconnection Customer must withdraw within five Business Days of posting the results of the Interconnection Facilities Study.

Milestone payments will also be refunded in the event the Interconnection Customer or MHVDC Connection Customer withdraws within the later of five (5) Business Days of the results of the study or at the end of an Interconnection Customer Decision Point, if applicable, of results indicating designated increases in estimated upgrade costs across the following intervals:

1. DPP Phase I to DPP Phase II
 - a. An increase in MISO Network Upgrade costs of twenty-five percent (25%) and more than \$10,000 per MW from the Preliminary SIS to the Revised SIS; or
 - b. Affected System upgrade costs on transmission systems other than the MISO Transmission System of more than \$10,000 per MW.
2. DPP Phase II to DPP Phase III
 - a. An increase in MISO Network Upgrade costs of thirty-five (35%) and more than \$15,000 per MW from the Revised SIS to any Final SIS; or
 - b. An increase in Affected System upgrade costs on transmission systems other than the MISO Transmission System of forty percent (40%) and more than \$15,000 per MW.
3. DPP Phase I to DPP Phase III (or beyond)

- a. An increase in MISO Network Upgrade costs of fifty (50%) and more than \$20,000 per MW from the Preliminary SIS to any Final SIS (or any subsequent restudy).

7.7 Applicability of Definitive Planning Phase Milestone Payments (M2, M3, and M4) to Generator Interconnection Agreement Initial Payment or Transmission Connection Agreement Initial Payment

In the event the Interconnection Customer has elected to make its milestones in the form of cash, Transmission Provider will transfer the Definitive Planning Phase milestones to the appropriate Transmission Owner to satisfy the initial payment requirement of the Generator Interconnection Agreement, TCA or other applicable service agreement within forty-five (45) Calendar Days of the effective date of the Generator Interconnection Agreement, TCA or other applicable service agreement. The Transmission Provider shall refund Milestone cash payments exceeding the initial payment requirement to the Interconnection Customer, MHVDC Connection Customer or the applicable Transmission Owner upon Interconnection Customer's or MHVDC Connection Customer's request with Transmission Owner's consent, within forty-five (45) Calendar Days of the effective date of the Generator Interconnection Agreement, TCA or other applicable service agreement. In the event the milestone payments are less than the initial payment requirement, the Interconnection Customer or MHVDC Connection Customer shall be responsible for the remaining payment to the Transmission Owner.

In the event milestone payments were provided pursuant to an irrevocable letter of credit, such letter of credit shall be released upon satisfaction of the initial payment requirement in the Generator Interconnection Agreement, TCA or other applicable service agreement.

7.8 Use of Definitive Planning Phase Entry At Risk Milestone Payments (M2, M3 and M4) or Payments of Withdrawn Projects

Upon completion of the Definitive Planning Phase III and after any subsequent restudy performed after Definitive Planning Phase III, Transmission Provider will determine the financial impact of withdrawn projects on each remaining Interconnection Request in the same cycle. This financial impact will be determined using the following two-step method.

Step 1: Transmission Provider first determines the cost of upgrades that are shifted from withdrawn projects to remaining projects that were co-participants in Common Use Upgrades or Shared Network Upgrades.

For projects that withdrew before the completion of Interconnection Customer Decision Point I with at-risk milestones, the Transmission provider will determine the costs that were shifted from withdrawn projects to remaining projects that were co-participants in Common Use Upgrades or Shared Network Upgrades. In order to determine whether a withdrawal caused overall financial impact to those remaining Interconnection Requests, the Transmission Provider shall compare the planning level cost allocation between the Preliminary System Impact Study and the Final System Impact Study.

For projects that withdrew after the completion of Interconnection Customer Decision Point I but before the completion of Interconnection Customer Decision Point II with at-risk milestones, the Transmission Provider will determine the costs that were shifted from withdrawn projects to remaining projects that were co-participants in Common Use Upgrades or Shared Network Upgrades. In order to determine whether a withdrawal caused overall financial impact to those remaining Interconnection Requests, the Transmission Provider shall compare the planning level cost allocation

between the Revised System Impact Study and the Final System Impact Study.

For projects that withdrew after the completion of Interconnection Customer Decision Point II with at-risk milestones or payments, the Transmission Provider will determine the costs that were shifted from withdrawn projects to remaining projects that were co-participants in Common Use Upgrades or Shared Network Upgrades. In order to determine whether a withdrawal caused overall financial impact to those remaining Interconnection Requests, the Transmission Provider shall compare the planning level cost allocation between the last study the withdrawing project was included in and the subsequent study.

For each of the step 1 comparisons, if the comparative planning level cost analysis indicates that a project withdrawal causes an increase in financial impact to any remaining co-participants, a financial impact analysis will be performed to determine if the overall costs to the remaining co-participants subsequently increased, those remaining co-participants will be credited using the milestones, and/or payment(s) made under a GIA, FCA, or MPFCA that were forfeited by the withdrawn Interconnection Customers or MHVDC Connection Customers in the same cycle.

Step 2: Transmission Provider will calculate the financial impact to each remaining Interconnection Request that is obligated to fund Network Upgrades other than Common Use Upgrades or Shared Network Upgrades.

For projects that withdrew before the completion of Interconnection Customer Decision Point I with at-risk milestones, the Transmission provider will determine the costs that were shifted from withdrawn projects to remaining projects that fund Network Upgrades other than Common Use Upgrades or

Shared Network Upgrades. In order to determine whether a withdrawal caused overall financial impact to those remaining Interconnection Requests, the Transmission Provider shall compare the planning level cost allocation between the Preliminary System Impact Study and the Final System Impact Study.

For projects that withdrew after the completion of Interconnection Customer Decision Point I but before the completion of Interconnection Customer Decision Point II with at-risk milestones, the Transmission Provider will determine the costs that were shifted from withdrawn projects to remaining projects that fund Network Upgrades other than Common Use Upgrades or Shared Network Upgrades. In order to determine whether a withdrawal caused overall financial impact to those remaining Interconnection Requests, the Transmission Provider shall compare the planning level cost allocation between the Revised System Impact Study and the Final System Impact Study.

For projects that withdrew after the completion of Interconnection Customer Decision Point II with at-risk milestones or payments, the Transmission Provider will determine the costs that were shifted from withdrawn projects to remaining projects that fund Network Upgrades other than Common Use Upgrades or Shared Network Upgrades. In order to determine whether a withdrawal caused overall financial impact to those remaining Interconnection Requests, the Transmission Provider shall compare the planning level cost allocation between the Final System Impact Study and the subsequent restudy. For each of the Step 2 comparisons, if any portion of the comparative analyses indicates that the withdrawal of a project causes an increase in the total cost of Network Upgrades, other than Common Use Upgrades or Shared Network Upgrades, for any of the remaining Interconnection Requests, the Transmission Provider will use the Definitive Planning Phase milestones (M2, M3 and M4), collected from the

withdrawn Interconnection Requests in the current Definitive Planning Phase cycle and/or payment(s) made under a GIA, FCA, or MPFCA, to offset the cost difference for those remaining Interconnection Requests in the same cycle. If any portion of the comparative analyses indicated that the withdrawal of a project causes a decrease in the total cost of Network Upgrades, other than Common Use Upgrades or Shared Network Upgrades, for any of the remaining Interconnection Requests, those remaining Interconnection Customers and MHVDC Connection Customers shall not receive any reimbursement from the collected Definitive Planning Phase milestones and/or payment(s) made under a GIA, FCA, or MPFCA. If any portion of the comparative analyses indicates that the withdrawal of a project causes the total cost of Network Upgrades, other than Common Use Upgrades or Shared Network Upgrades, for any of the remaining Interconnection Requests to remain the same, those remaining Interconnection Customers and MHVDC Connection Customers shall not receive any reimbursement from the collected Definitive Planning Phase milestones and/or payment(s) made under a GIA, FCA, or MPFCA.

The total allocation to any remaining Interconnection Requests will not exceed the total Definitive Planning Phase milestones collected from the Interconnection Customers and MHVDC Connection Customers that withdrew their Interconnection Requests from the same Definitive Planning Phase cycle and/or the allowable amount from the payment(s) made under a GIA, FCA, or MPFCA. In instances where the total cost of Network Upgrades has increased for multiple Interconnection Requests, but the collected Definitive Planning Phase milestones and/or the allowable amount from the payment(s) made under a GIA, FCA, or MPFCA are insufficient to cover the increase in total cost of Network Upgrades for all affected Interconnection Requests, the Transmission Provider will allocate the collected Definitive Planning Phase milestones equally as a percentage of increased Network Upgrade costs.

If any collected Definitive Planning Phase milestones and/or payment(s) made under a GIA, FCA, or MPFCA remain after allocating to remaining affected Interconnection Requests, the Transmission Provider will refund the remaining collected Definitive Planning Phase milestones to each Interconnection Customer and MHVDC Connection Customer in proportion to that customer's forfeited milestone payments as a *pro rata* share of the total collected Definitive Planning Phase milestones and/or payments made under a GIA, FCA, or MPFCA.

The amount of the payment(s) made under a GIA, FCA, or MPFCA that can be used to compensate for financial impact under this Section cannot exceed the amount of the Interconnection Customer's or MHVDC Connection Customer's Definitive Planning Phase milestones.

7.9 Provisional Generator Interconnection Agreement

The Transmission Provider may provide a provisional Generator Interconnection Agreement for limited operation at the discretion of Transmission Provider based upon the results of available studies that indicate that there is a level of interconnection that can occur without any additional Network Upgrades. An Interconnection Customer may request such Provisional Generator Interconnection Agreement by providing written notice to the Transmission Provider beginning upon Interconnection Request submission and up to and through Interconnection Customer Decision Point II (Section 7.3.2.4 of this GIP).

If scheduled Interconnection Customer Decision Point I, Interconnection Customer Decision Point II, or the Interconnection Facilities Study for Network Upgrades becomes delayed by more than sixty (60) Calendar Days, Interconnection Customers may also request a Provisional Generator Interconnection Agreement from Transmission Provider. A request for a Provisional Generator Interconnection Agreement at any other time shall be deemed invalid by the Transmission Provider.

All provisions of the Definitive Planning Phase (Section 7 of this GIP) apply, except as provided in Section 7.9.1. After receiving a request for a Provisional Generator Interconnection Agreement, the Transmission Provider will begin the first portion of the Interconnection Facilities Study as discussed in Section 7.3.3.4 and will perform a Provisional Interconnection Study. After completing required studies, the Transmission Provider will issue a draft Provisional Generator Interconnection Agreement pursuant to Section 11.2.

7.9.1 Additional Definitive Planning Phase Requirements for Provisional Generator Interconnection Agreements

Interconnection Customers seeking a Provisional Generator Interconnection Agreement must submit Definitive Planning Phase II and Definitive Planning Phase III Milestones (M3 and M4). If M3 and M4 have not been calculated at the time of Interconnection Customer's request for a Provisional Generator Interconnection Agreement, M3 and M4 shall each be initially \$4,000 per MW. The Transmission Provider shall then calculate the M3 and M4 as provided in Sections 7.3.1.4.1 and 7.3.2.4.1. If the actually calculated M3 and M4 values are higher than the M3 and M4 previously paid, Interconnection Customer shall pay any difference between the M3 and M4 previously paid and the actually calculated values within thirty (30) Calendar Days of those amounts being calculated by the Transmission Provider. Failure to pay any difference between the calculated M3 and M4 and the initially paid M3 and M4 within thirty (30) Calendar Days shall result in automatic withdrawal of the Interconnection Request. If the actually calculated M3 and M4 values are lower than the M3 and M4 previously paid, Transmission Provider shall refund any difference between the M3 and M4 previously paid and the actually calculated values.

7.9.2 Consent to Proceed Through Definitive Planning Phase Decision

Points

Interconnection Customers seeking a Provisional Generator Interconnection Agreement automatically consent to the Transmission Provider moving the Interconnection Request through Definitive Planning Phases II and III without regard to Interconnection Customer Decision Point II unless notification of withdrawal is provided to the Transmission Provider.

7.9.3 Withdrawal

Interconnection Customers seeking a Provisional Generator Interconnection Agreement are eligible to receive one hundred percent (100%) refund of all Definitive Planning Phase milestones (M2, M3, and M4) only when the Interconnection Request is withdrawn prior to the start of Definitive Planning Phase I and unencumbered study deposits remaining. Interconnection Customers seeking a Provisional Generator Interconnection Agreement at the time of Interconnection Request submission may withdraw before the end of Interconnection Customer Decision Point I and Transmission Provider will refund fifty percent (50%) of the Definitive Planning Phase entry milestone (M2), all of the Definitive Planning Phase Milestone payments M3 and M4, and unencumbered study deposits remaining. After Interconnection Customer Decision Point I, Interconnection Customers seeking a Provisional Generator Interconnection Agreement may withdraw from the Transmission Provider's interconnection queue at any time, but all Definitive Planning Phase Milestone (M2, M3, and M4) payments are non-refundable and will be used in accordance to Section 7.8. Interconnection Customers seeking a Provisional Generator Interconnection Agreement shall not be eligible for any milestone payment refunds provided under Section 7.6.2.4.

7.9.4 Reversion to Standard Definitive Planning Phase Process

Interconnection Customers seeking a Provisional Generator Interconnection Agreement may notify Transmission Provider before and during Interconnection Customer Decision Point I that the Interconnection Customer wishes to revert to the standard Definitive Planning Phase process. Transmission Provider will subsequently refund the Definitive Planning Phase III (M4) milestone payment. Interconnection Customer must then continue to abide by all Definitive Planning Phase requirements.

SECTION 8. {RESERVED}**SECTION 9. ENGINEERING & PROCUREMENT (“E&P”) AGREEMENT.**

Prior to executing an GIA, an Interconnection Customer may, in order to advance the implementation of its interconnection, request and Transmission Provider shall offer Interconnection Customer, an E&P Agreement that authorizes Transmission Owner to begin engineering and procurement of long lead-time items necessary for the establishment of the interconnection. However, Transmission Provider shall not be obligated to offer an E&P Agreement if Interconnection Customer is in Dispute Resolution as a result of an allegation that Interconnection Customer has failed to meet any milestones or comply with any prerequisites specified in other parts of the GIP. The E&P Agreement is an optional procedure and it will not alter the Interconnection Customer’s Definitive Planning Phase Queue Position or In-Service Date. The E&P Agreement shall provide for Interconnection Customer to pay the cost of all activities authorized by Interconnection Customer and to make advance payments or provide other satisfactory security for such costs.

Interconnection Customer shall pay the cost of such authorized activities and any cancellation costs for equipment that is already ordered for its Interconnection Request, which cannot be mitigated as hereafter described, whether or not such items or equipment later become unnecessary. If Interconnection Customer withdraws its application for interconnection or a Party to the E&P Agreement terminates the E&P Agreement, to the extent the equipment ordered can be canceled under reasonable terms, Interconnection Customer shall be obligated to pay the associated cancellation costs. To the extent that the equipment cannot be reasonably canceled, Transmission Owner may elect: (i) to take title to the equipment, in which event Transmission Owner shall refund Interconnection Customer any amounts paid by Interconnection Customer for such equipment and shall pay the cost of delivery of such equipment, or (ii) to transfer title to and deliver such equipment to Interconnection Customer, in which event Interconnection Customer shall pay any unpaid balance and cost of delivery of such equipment.

SECTION 10. OTHER INTERCONNECTION STUDIES.

10.1 Optional Interconnection Study

10.1.1 Optional Interconnection Study Agreement.

Optional Interconnection Studies are for informational purposes only and are to be completed within an agreed upon time period using Reasonable Efforts. The request for an Optional Interconnection Study can be made on a stand-alone basis or in parallel with the processing of valid Interconnection Request. The request shall describe the assumptions that Interconnection Customer or MHVDC Connection Customer wishes Transmission Provider to study within the scope described in Section 10.1.2. Within five (5) Business Days after receipt of a request for an Optional Interconnection Study, Transmission Provider shall provide to

Interconnection Customer an Optional Interconnection Study Agreement in the form of Appendix 5.

The Optional Interconnection Study Agreement shall: (i) specify the technical data that Interconnection Customer or MHVDC Connection Customer must provide for each phase of the Optional Interconnection Study, and (ii) specify Interconnection Customer's or MHVDC Connection Customer's assumptions as to which Interconnection Requests with earlier queue priority dates will be excluded from the Optional Interconnection Study case and assumptions as to the type of Interconnection Service for Interconnection Requests remaining in the Optional Interconnection Study case. Notwithstanding the above, Transmission Provider shall not be required as a result of an Optional Interconnection Study request to conduct any additional Interconnection Studies with respect to any other Interconnection Request and shall continue processing the Interconnection Request in accordance with these GIP.

Interconnection Customer or MHVDC Connection Customer shall execute the Optional Interconnection Study Agreement within ten (10) Business Days of receipt and deliver the Optional Interconnection Study Agreement, the technical data and a deposit equal to sixty thousand dollars (\$60,000.00) to Transmission Provider.

10.1.2 Scope of Optional Interconnection Study.

The Optional Interconnection Study will consist of a sensitivity analysis based on the assumptions specified by Interconnection Customer or MHVDC Connection Customer in the Optional Interconnection Study Agreement. The Optional Interconnection Study will also identify the Transmission Owner's Interconnection Facilities, System Protection

Facilities, Distribution Upgrades, Generator Upgrades, Common Use Upgrades, and the Network Upgrades, and the estimated cost thereof, that may be required to provide transmission service or Interconnection Service based upon the results of the Optional Interconnection Study. The Optional Interconnection Study shall be performed solely for informational purposes. Transmission Provider shall use Reasonable Efforts to coordinate the study with any Affected Systems that may be affected by the types of Interconnection Services that are being studied. Transmission Provider shall utilize existing studies to the extent practicable in conducting the Optional Interconnection Study.

10.1.3 Optional Interconnection Study Procedures.

The executed Optional Interconnection Study Agreement, the prepayment, and technical and other data called for therein must be provided to Transmission Provider within ten (10) Business Days of Interconnection Customer or MHVDC Connection Customer receipt of the Optional Interconnection Study Agreement. Transmission Provider shall use Reasonable Efforts to complete the Optional Interconnection Study within a mutually agreed upon time period specified within the Optional Interconnection Study Agreement. If Transmission Provider is unable to complete the Optional Interconnection Study within such time period, it shall notify Interconnection Customer or MHVDC Connection Customer and provide an estimated completion date and an explanation of the reasons why additional time is required. Any difference between the study payment and the actual cost of the study shall be paid to Transmission Provider or refunded to Interconnection Customer, as appropriate. Upon request, Transmission Provider shall provide Interconnection Customer or MHVDC Connection Customer supporting documentation and workpapers and databases or data developed in the preparation of the Optional Interconnection Study, subject to confidentiality arrangements

consistent with Section 13.1.

10.2 Provisional Interconnection Study

10.2.1 Scope of Provisional Interconnection Study

The Provisional Interconnection Study will consist of stability, short circuit, and voltage analysis to identify issues that would result if the Generating Facility were interconnected without project modifications or system modifications. The Provisional Interconnection Study will also identify the Transmission Owner's Interconnection Facilities, System Protection Facilities, Distribution Upgrades, Generator Upgrades, Common Use Upgrades, and the Network Upgrades, and the estimated cost thereof, that may be required to provide Energy Resource Interconnection Service on a provisional basis based upon the results of the Provisional Interconnection Study. Transmission Provider shall use Reasonable Efforts to coordinate the study with any Affected Systems that may be affected by the type of Interconnection Service that is being studied. Transmission Provider shall utilize existing studies to the extent practicable in conducting the Provisional Interconnection Study.

10.2.2 Provisional Interconnection Study Procedures

Transmission Provider must receive the information and milestones as described in Sections 7.9 and 7.9.1 prior to beginning the Provisional Interconnection Study. Transmission Provider shall use Reasonable Efforts to complete the Provisional Interconnection Study within a mutually agreed upon time. If Transmission Provider is unable to complete the Provisional Interconnection Study within such time period, it shall notify Interconnection Customer or MHVDC Connection Customer and provide an estimated completion date and an explanation of the reasons why additional time is required. Actual cost of the Provisional

Interconnection Study shall be paid by Interconnection Customer or MHVDC Connection Customer pursuant to Section 7.6.1. Upon request, Transmission Provider shall provide Interconnection Customer or MHVDC Connection Customer supporting documentation and workpapers and databases or data developed in the preparation of the Provisional Interconnection Study, subject to confidentiality arrangements consistent with Section 13.1.

**SECTION 11. GENERATOR INTERCONNECTION AGREEMENT (GIA),
FACILITIES CONSTRUCTION AGREEMENT (FCA), AND MULTI-
PARTY FACILITIES CONSTRUCTION AGREEMENT (MPFCA).**

11.1 Tender.

Except as provided in Section 11.1.1, Transmission Provider shall tender to the Interconnection Customer a draft GIA and, as applicable, draft FCA(s) and/or MPFCA(s), together with draft appendices completed to the extent practicable, within five (5) Business Days after issuance of the applicable first portion of the Interconnection Facilities Study report and Final System Impact Study report.

Throughout this Section 11, the applicable Interconnection Facilities Study for a GIA shall be the Interconnection Facilities Study that was initiated for that project in DPP Phase II. Throughout this Section 11, the applicable Interconnection Facilities Study for a Network Upgrade that is addressed in a FCA or MPFCA shall be the Interconnection Facilities Study performed for that Network Upgrade.

At the request of any Party, Transmission Provider shall tender to the Interconnection Customer a draft GIA and, as applicable, draft FCA(s), together with draft appendices completed to the extent practicable, within ten (10) Calendar Days of receiving such request, provided such request is received after the completion of Interconnection Customer Decision Point II and issuance of the

draft Phase II Interconnection Facilities Study. The draft GIA and, as applicable, draft FCA shall be in the form of the Transmission Providers current *pro forma*.

11.1.1 Common Use Upgrades and Multi-Party Facilities Construction Agreements.

In the event that the Final System Impact Study report indicates that more than one Interconnection Request causes the need for Network Upgrades or System Protection Facilities, Transmission Provider shall determine whether such Network Upgrades or System Protection Facilities are Common Use Upgrades requiring the use of a MPFCA. No later than ten (10) Calendar Days after issuance of the Final System Impact Study report and the applicable final Interconnection Facilities Study reports for each of the projects that are a part of the MPFCA, Transmission Provider shall tender the draft MPFCA to all Interconnection Customers that create the need and share the responsibility for the Common Use Upgrade. If Transmission Provider determines that an Interconnection Customer should be added to an MPFCA as a party, Transmission Provider shall tender a draft MPFCA to the prospective Interconnection Customer and include the prospective Interconnection Customer in Group Studies as applicable.

Upon the written request of all Interconnection Customers that are Party to the MPFCA, Transmission Provider shall tender the MPFCA within ten (10) Calendar Days of receiving such written request, provided such request is received after issuance of: (i) the Final System Impact Study report; and (ii) the applicable draft Interconnection Facilities Study reports for each of the projects that are a part of the MPFCA.

11.2 Negotiation.

Interconnection Customer and Transmission Owner shall return comments on the

draft GIA, and as applicable, draft FCA(s) and/or MPFCA(s) within twenty (20) Business Days of receipt of the draft GIA, and as applicable, draft FCA(s) and/or MPFCA(s), along with the completion of the parts of the appendices for which Interconnection Customer is responsible. Within ten (10) Business Days after the comments are submitted, Transmission Provider shall tender a revised draft GIA, and as applicable, draft FCA(s) and/or MPFCA(s) to the Parties, together with draft appendices.

The Parties shall begin negotiations concerning the appendices to the GIA, and, as applicable, FCA(s) and/or MPFCA(s) upon tender of the draft GIA, and as applicable, draft FCA(s) and/or MPFCA(s) to the Parties in accordance with the terms of Section 11.1 of this GIP. Except as provided in Section 11.2.1 of this GIP, Transmission Provider, Transmission Owner, and Interconnection Customer shall negotiate the GIA for no more than forty (40) Business Days after issuance of the Final System Impact Study report. Transmission Provider, Transmission Owner, and Interconnection Customer shall negotiate draft FCA(s) and/or MPFCA(s) for no more than forty (40) Business Days after issuance of the applicable final Interconnection Facilities Study Reports applicable to the FCA(s) and/or MPFCA(s) that are subject to negotiation and the Final System Impact Study report.

If Interconnection Customer, Transmission Owner or Transmission Provider determines that negotiations are at an impasse, it may request termination of the negotiations by providing written notice to the other parties at any time after tender of the draft GIA, and, as applicable, draft FCA(s) and/or MPFCA(s) pursuant to Section 11.1 and request submission of the unexecuted GIA, and, as applicable, FCA(s) and/or MPFCA(s) with FERC or initiate Dispute Resolution procedures pursuant to Section 13.5. The Interconnection Customer, Transmission Owner or Transmission Provider may request such termination and request for an unexecuted filing during the negotiation period established in this Section 11.2

and under the negotiation period established in Section 11.2.1 of this GIP, as applicable. If an Interconnection Customer requests termination of its negotiations, but within thirty (30) Calendar Days thereafter fails to request the filing of the unexecuted GIA, and, as applicable, FCA(s) and/or MPFCA(s), it shall be deemed to have withdrawn its Interconnection Request.

11.2.1 Optional negotiation period adjustment for Interconnection Facilities Study.

The Interconnection Customer may postpone the start of the negotiation period for the GIA, and as applicable, draft FCA(s) and/or MPFCA(s), until the issuance of the applicable final Interconnection Facilities Study report. Interconnection Customer shall make such election by providing written notice to the Transmission Provider prior to the posting of the Final System Impact Study report. If Interconnection Customer makes such election, Transmission Provider, Transmission Owner, and Interconnection Customer shall negotiate the GIA and as applicable, draft FCA(s) and/or MPFCA(s), for no more than forty (40) Business Days after issuance of the final applicable Interconnection Facilities Study.

11.3 Execution and Filing.

Transmission Provider shall provide to Interconnection Customer and Transmission Owner a final GIA, and, as applicable, final FCA(s) and/or final MPFCA(s) prepared for execution by the parties within fifteen (15) Business Days after the completion of the forty (40) Business Day negotiation period in accordance with Section 11.2 of this GIP. Within forty-five (45) Calendar Days of tender of the final GIA, and, as applicable, final FCA(s) and final MPFCA(s), Interconnection Customer and Transmission Owner shall either: (i) execute the tendered GIA, and, as applicable, FCA(s) and/or MPFCA(s); or (ii) request in writing that Transmission Provider file with FERC the GIA, and, as applicable, FCA(s) and/or MPFCA(s) in unexecuted form.

If Interconnection Customer has neither executed the GIA, and, as applicable, FCA(s) and/or MPFCA(s), nor requested filing of the GIA, and, as applicable, FCA(s) and/or MPFCA(s) in unexecuted form within forty-five (45) Calendar Days of tender of the final GIA, and, as applicable, final FCA(s) and final MPFCA(s), Interconnection Customer shall be deemed to have withdrawn its Interconnection Request. The Interconnection Customer's forty-five (45) Calendar Day deadline for execution will not reset in the event that an additional change is made to the GIA, FCA, or MPFCA after circulation for execution.

Within ten (10) Business Days after receiving from the Interconnection Customer(s) and the Transmission Owner either the executed tendered GIA, and, as applicable, FCA(s) and/or MPFCA(s) or the request to file an unexecuted GIA, and, as applicable, FCA(s) and/or MPFCA(s), Transmission Provider shall file the GIA, and, as applicable, FCA(s) and/or MPFCA(s) with FERC, together with its explanation of any matters as to which Interconnection Customer, Transmission Owner and Transmission Provider disagree and support for the costs that Transmission Owner proposes to charge to Interconnection Customer under the GIA, and, as applicable, FCA(s) and/or MPFCA(s). An unexecuted GIA, and, as applicable, FCA(s) and/or MPFCA(s), shall contain terms and conditions deemed appropriate by Transmission Provider for the Interconnection Request.

Within one-hundred and eighty (180) Calendar Days after receipt of the final GIA Interconnection Customer shall provide Transmission Provider with reasonable evidence that one or more of the following milestones in the development of the Generating Facility has been achieved: (i) the execution of a contract for the supply or transportation of fuel to the Generating Facility; (ii) the execution of a contract for the supply of cooling water to the Generating Facility; (iii) execution of a contract for the engineering for, procurement of major equipment for, or

construction of, the Generating Facility; (iv) execution of a contract for the sale of electric energy or capacity from the Generating Facility, or a statement signed by an authorized officer from or agent of Interconnection Customer attesting that Interconnection Customer owns the Generating Facility and it is required to serve load; or (v) documentation of application for all necessary state and local air, water, land, federal nuclear, and/or Environmental Law permits and that the application is proceeding per regulations.

11.4 Commencement of Interconnection Activities.

If Interconnection Customer executes the final GIA, and, as applicable, FCA(s) and/or MPFCA(s) Transmission Provider, Transmission Owner and Interconnection Customer shall perform their respective obligations in accordance with the terms of the GIA, and, as applicable, FCA(s) and/or MPFCA(s), subject to modification by FERC. Unless otherwise agreed by all Parties, upon submission of an unexecuted GIA, and, as applicable, unexecuted FCA(s) and/or unexecuted MPFCA(s), the Parties shall promptly comply with the unexecuted GIA, and, as applicable, unexecuted FCA(s) and/or unexecuted MPFCA(s), subject to modification by FERC. As applicable, compliance with the terms of such unexecuted FCA(s) and/or MPFCA(s) or execution and performance under a FCA and/or MPFCA will be a requirement under the GIA.

11.5 Special Considerations.

The maximum permissible output of the Generating Facility in the Provisional Generator Interconnection Agreement will be updated on a quarterly basis, and determined by finding the transfer limit of energy commensurate with the analysis for Energy Resource Interconnection Service. This study shall be performed assuming the system topology represented by the base cases used to calculate Available Flowgate Capability as described in Attachment C of this Tariff with dispatch and optimization algorithms posted on the MISO internet site. Limits will be posted on the Transmission Provider's OASIS site, and operation above

those limits will be deemed as unauthorized use of the transmission system and subject to provisions in this Tariff surrounding that use. Interconnection Customer assumes all risks and liabilities with respect to changes, which may impact the Generator Interconnection Agreement including, but not limited to, change in output limits and future Network Upgrade cost responsibilities.

11.6 Quarterly Operating Limit Studies.

Interconnection Customers subject to Quarterly Operating Limits shall be responsible for the cost of performing the required quarterly studies.

Interconnection Customers shall submit a Quarterly Operating Limit study deposit in the amount of \$10,000 sixty (60) Calendar Days prior to the start of the first applicable binding quarter. Any difference between the study deposit and the actual cost of the applicable Quarterly Operating Limit studies shall be paid by, or refunded to, the Interconnection Customer. MISO will refund any difference the quarter following the Interconnection Customer no longer being subject to Quarterly Operating Limits.

SECTION 12. CONSTRUCTION OF TRANSMISSION OWNER'S OR AFFECTED SYSTEM TRANSMISSION OWNER'S INTERCONNECTION FACILITIES, SYSTEM PROTECTION FACILITIES, DISTRIBUTION UPGRADES AND NETWORK UPGRADES.

12.1 Schedule.

Transmission Owner, Interconnection Customer, and, as applicable, Interconnection Customers in an MPFCA and a Transmission Owner that is an Affected System and, at its election, Transmission Provider shall negotiate in good faith concerning a schedule for the construction of the Transmission Owner's Interconnection Facilities, System Protection Facilities, Distribution Upgrades, Network Upgrades, Common Use Upgrades, and the Stand-Alone

Network Upgrades. Interconnection Customer and Transmission Owner shall each provide the other Parties its detailed construction schedule.

12.2 Construction Sequencing.

12.2.1 General

In general, the In-Service Date of an Interconnection Customer seeking interconnection to the Transmission System will determine the sequence of construction of Transmission Owner's Interconnection Facilities, System Protection Facilities, Distribution Upgrades, if any, and Network Upgrades, including any Common Use Upgrades. If the time required to build the facilities described in the GIA, and, as applicable, FCA(s) and/or MPFCA(s) is greater than the time between execution of the GIA, and, as applicable, FCA(s) and/or MPFCA(s) and the requested In-Service Date, the In-Service Date will be adjusted through the milestones delineated in the GIA, and as applicable, FCA(s) and/or MPFCA(s) appendices prior to the execution of the Generator Interconnection Agreement.

12.2.2 Advance Construction of Network Upgrades, System Protection Facilities, Distribution Upgrades or Generator Upgrades that are an Obligation of an Entity other than Interconnection Customer

An Interconnection Customer with a GIA, and, as applicable, FCA(s) and/or MPFCA(s), in order to maintain its In-Service Date, may request that Transmission Owner advance to the extent necessary the completion of Network Upgrades, System Protection Facilities or Distribution Upgrades that: (i) were assumed in the Interconnection Studies for such Interconnection Customer, (ii) are necessary to support such In-Service Date, and (iii) would otherwise not be completed, pursuant to a contractual obligation of an entity other than Interconnection Customer

that is seeking interconnection to the Transmission System, in time to support such In-Service Date. Upon such request, Transmission Owner will use Reasonable Efforts to advance the construction of such Network Upgrades, System Protection Facilities or Distribution Upgrades, to the extent it is obligated for any such construction, to accommodate such request; provided that Interconnection Customer commits to pay Transmission Owner: (i) any associated expediting costs and (ii) the cost of such Network Upgrades, System Protection Facilities or Distribution Upgrades. Transmission Owner will refund to Interconnection Customer both the expediting costs and the cost of Network Upgrades, in accordance with Article 11.4 of the GIA, and, as applicable, FCA(s) and/or MPFCA(s). Consequently, the entity with a contractual obligation to construct such Network Upgrades shall be obligated to pay only that portion of the costs of the Network Upgrades that Transmission Owner has not refunded to Interconnection Customer. Payment by that entity shall be due on the date that it would have been due had there been no request for advance construction. Transmission Owner shall forward to Interconnection Customer (with copy to Transmission Provider) the amount paid by the entity with a contractual obligation to construct the Network Upgrades as payment in full for the outstanding balance owed to Interconnection Customer. Transmission Owner then shall refund to that entity the amount that it paid for the Network Upgrades, in accordance with Article 11.4 of the GIA, and, as applicable, FCA(s) and/or MPFCA(s).

12.2.3 Advancing Construction of Network Upgrades that are Part of an Expansion Plan of Transmission Provider

An Interconnection Customer with a GIA, and, as applicable, FCA(s) and/or MPFCA(s), in order to maintain its In-Service Date, may request that Transmission Owner advance to the extent necessary the completion

of Network Upgrades, System Protection Facilities or Distribution Upgrades that: (i) are necessary to support such In-Service Date, including those listed as a contingent element in the Interconnection Customer's GIA, and, as applicable, FCA(s) and/or MPFCA(s); and (ii) would otherwise not be completed, pursuant to an expansion plan of Transmission Provider, in time to support such In-Service Date. Upon such request, Transmission Owner will use Reasonable Efforts to advance the construction of such Network Upgrades, System Protection Facilities or Distribution Upgrades to accommodate such request; provided that Interconnection Customer commits to pay Transmission Owner any associated expediting costs. Interconnection Customer shall be entitled to transmission credits, if any per Attachment FF, for any expediting costs paid associated with the Network Upgrades.

12.2.4 Amended Interconnection System Impact and/or Interconnection Facilities Study

The Interconnection System Impact Study resulting from the Definitive Planning Phase and/or Interconnection Facilities Study(ies) will be amended to determine the facilities necessary to support the requested In-Service Date. Any amended study will follow the procedures provided in the GIP, as applicable, regarding such study and study cost, and include those transmission and Generating Facilities that are expected to be in service on or before the requested In-Service Date.

SECTION 13. MISCELLANEOUS.

13.1 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 any Party to another Party prior to the execution of a GIA, and, as applicable, FCA(s) and/or MPFCA(s).

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.

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.

13.1.1 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 the GIA, and, as applicable, FCA(s) and/or MPFCA(s); or (6) is required, in accordance with Section 13.1.6, 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 the GIA, and, as applicable, FCA(s) and/or MPFCA(s). 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.

13.1.2 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) employees, agents, consultants, or to non-parties who may be or considering providing financing to or equity participation with Interconnection Customer or MHVDC Connection Customer, or to potential purchasers or assignees of Interconnection Customer or MHVDC Connection Customer, on a need-to-know basis in connection with these procedures, unless such person has first been advised of the confidentiality provisions of this Section 13.1 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 Section 13.1.

13.1.3 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.

13.1.4 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.

13.1.5 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 these procedures or its regulatory requirements.

13.1.6 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 the 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.

13.1.7 Remedies

The Parties agree that monetary damages would be inadequate to compensate a Party for another Party's breach of its obligations under this Section 13.1. 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 Section 13.1, 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 Section 13.1, 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 Section 13.1.

13.1.8 Disclosure to FERC, Its Staff, or a State.

Notwithstanding anything in this Section 13.1 to the contrary, and pursuant to 18 C.F.R Section 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 these GIP, 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 C.F.R. Section 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. The Party is prohibited from notifying the other Parties prior to the release of the Confidential Information to the Commission or its staff. The Party shall notify the other Parties to the 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 C.F.R. Section 388.112.

Requests from a state regulatory body conducting a confidential investigation shall be treated in a similar manner, consistent with applicable state rules and regulations.

13.1.9 Subject to the exception in Section 13.1.8, any information that a disclosing Party claims is competitively sensitive, commercial or financial information (“Confidential Information”) 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 disclosing 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 the GIP or as the Regional Transmission Organization or a Local Balancing Authority operator including disclosing the Confidential Information to a subregional, regional or national reliability organization or planning group. 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 receiving 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.

13.1.10 This provision shall not apply to any information that was or is hereafter in the public domain (except as a result of a breach of this provision).

13.1.11 At the Interconnection Customer's or MHVDC Connection Customer's election, Transmission Provider shall cause the party in lawful possession of Confidential Information to, destroy, in a confidential manner, or return the Confidential Information provided at the time of Confidential Information is no longer needed.

13.2 Delegation of Responsibility.

Transmission Provider may use the services of subcontractors as it deems appropriate to perform its obligations under the GIP. Transmission Provider shall remain primarily liable to Interconnection Customer or MHVDC Connection Customer for the performance of such subcontractors and compliance with its obligations of the GIP. The subcontractor shall keep all information provided confidential and shall use such information solely for the performance of such obligation for which it was provided and for no other purpose.

13.3 Obligation for Study Costs.

Transmission Provider shall charge and Interconnection Customer or MHVDC Connection Customer shall pay the actual costs of the Interconnection Studies. Any difference between the study deposit and the actual cost of the applicable Interconnection Study shall be paid by or refunded, except as otherwise provided herein, to Interconnection Customer or MHVDC Connection Customer or offset against the cost of any future Interconnection Studies associated with the applicable Interconnection Request prior to beginning of any such future Interconnection Studies. Any invoices for Interconnection Studies shall include a detailed and itemized accounting of the cost of each Interconnection Study. Interconnection Customer or MHVDC Connection Customer shall pay any such undisputed costs within thirty (30) Calendar Days of receipt of an invoice. Transmission Provider shall not be obligated to perform or continue to perform

any studies unless Interconnection Customer or MHVDC Connection Customer has paid all undisputed amounts in compliance herewith.

In the event Interconnection Customer's or MHVDC Connection Customer's project is withdrawn, terminated or suspended, Transmission Provider shall not be required to refund any unused portion of the study deposit paid to enter the Definitive Planning Phase that is necessary to account for study costs associated with the project or restudy costs associated with any affected lower-queued projects, any other project with which Interconnection Customer's or MHVDC Connection Customer's project shares responsibility for funding a Common Use Upgrade, or, in the event the project is included in a Group Study, any other affected projects in the Group Study. Unused study deposits from the Definitive Planning Phase that are not otherwise required due to the withdrawals, termination or suspension of the project will be refunded upon Commercial Operation.

13.4 Non-Parties Conducting Studies.

If (i) at the time of the signing of an Interconnection Study Agreement there is disagreement as to the estimated time to complete an Interconnection Study, (ii) Interconnection Customer or MHVDC Connection Customer receives notice pursuant to the GIP that Transmission Provider will not complete an Interconnection Study within the applicable timeframe for such Interconnection Study, or (iii) Interconnection Customer or MHVDC Connection Customer receives neither the Interconnection Study nor a notice under the GIP within the applicable timeframe for such Interconnection Study, then Interconnection Customer or MHVDC Connection Customer may require Transmission Provider or its agent to utilize a consultant reasonably acceptable to Interconnection Customer or MHVDC Connection Customer and Transmission Provider to perform such Interconnection Study under the direction of Transmission Provider. At other times, Transmission Provider may also utilize a consultant to perform

such Interconnection Study, either in response to a general request of Interconnection Customer or MHVDC Connection Customer, or on its own volition.

In all cases, use of a consultant shall be in accord with Article 26 of the GIA (subcontractors), and, as applicable, FCA(s) and/or MPFCA(s) and limited to situations where Transmission Provider determines that doing so will help maintain or accelerate the study process for the Interconnection Customer's or MHVDC Connection Customer's pending Interconnection Request and not interfere with the Transmission Provider's progress on Interconnection Studies for other pending Interconnection Requests. In cases where Interconnection Customer or MHVDC Connection Customer requests use of a consultant to perform such Interconnection Study, Interconnection Customer or MHVDC Connection Customer and Transmission Provider shall negotiate all of the pertinent terms and conditions, including reimbursement arrangements and the estimated study completion date and study review deadline. Transmission Provider shall convey all workpapers, data bases, study results and all other supporting documentation prepared to date with respect to the Interconnection Request as soon as soon as practicable upon Interconnection Customer's or MHVDC Connection Customer's request subject to the confidentiality provision in Section 13.1. In any case, such consultant contract may be entered into with either Interconnection Customer or MHVDC Connection Customer or Transmission Provider at the Transmission Provider's discretion. In the case of (iii), Interconnection Customer or MHVDC Connection Customer maintains its right to submit a claim to Dispute Resolution to recover the costs of such consultant study. Such consultant shall be required to comply with the GIP, Article 26 of the GIA (subcontractors), and, as applicable, FCA(s) and/or MPFCA(s), and the relevant Tariff procedures and protocols as would apply if Transmission Provider were to conduct the Interconnection Study and shall use the information provided to it solely for purposes of performing such services and

for no other purposes. Transmission Provider shall cooperate with such consultant and Interconnection Customer or M HVDC Connection Customer to complete and issue the Interconnection Study in the shortest reasonable time.

13.5 Disputes.

13.5.1 Submission.

In the event any Party has a dispute, or asserts a claim, that arises out of or in connection with the GIA, or, as applicable, FCA(s) and/or MPFCA(s), the GIP, or their 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 other 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 other non-disputing Parties’ receipt of the Notice of Dispute, such claim or dispute shall be submitted in accordance with the dispute resolution procedures of the Tariff. In the event the designated representatives are able to resolve the claim or dispute within the above-described thirty (30) Calendar Day period, the disputing Party shall submit a written explanation of the resolution to the non-disputing Parties and shall obtain the written acknowledgement and acceptance from each non-disputing Party.

Disputes received after the GIA, or, as applicable, FCA(s) and/or MPFCA(s) has been tendered for execution pursuant to section 11.1 of this GIP will not affect any applicable deadline pursuant to Section 11.2 of this GIP.

13.5.2 Non-binding Dispute Resolution

If a Party has submitted a Notice of Dispute pursuant to section 13.5.1, and the Parties are unable to resolve the claim or dispute through unassisted or assisted negotiations within the thirty (30) Calendar Days provided in that section, and the Parties cannot reach mutual agreement to pursue binding dispute resolution, a Party may request that Transmission Provider engage in non-binding dispute resolution pursuant to this section by providing written notice to the Transmission Provider and other Party (“Request for Non-binding Dispute Resolution”). Such request shall not require the agreement of any other Party to proceed. The process set forth in this section shall serve as an alternative to, and not a replacement of, any other dispute resolution procedures contained within Attachment HH or otherwise authorized by the Tariff. Within 30 days of receipt of a Request for Non-binding Dispute Resolution pursuant to this Section, the Transmission Provider shall appoint a neutral decision-maker that is an independent subcontractor that shall not have any current or past substantial business or financial relationships with either Party. Unless otherwise agreed by the Parties, the decision-maker shall render a decision within sixty (60) Calendar Days of appointment and shall notify the Parties in writing of such decision and reasons therefore. Such decision-maker shall be authorized only to interpret and apply the provisions of the GIP, GIA, and as applicable, FCA(s) and/or MPFCA(s), and shall have no power to modify or change any provision of the GIP, GIA, FCA(s) or MPFCA(s) in any manner. The result reached in this process is not binding, but, unless otherwise agreed, the Parties may cite the record and decision in this Nonbinding Dispute Resolution Process in future dispute resolution processes under the Tariff, including in arbitration, or in a Federal Power Act section 206 complaint. Each Party shall be responsible for its own costs incurred during the process and the cost of the decision-

maker shall be divided equally among each Party to the dispute. Non-binding dispute resolutions conducted pursuant to this section shall adhere to any procedural and timing requirements set forth in the Generator Interconnection Business Practices Manual unless all parties to such dispute agree to modify such rules.

13.6 Local Furnishing Bonds.

13.6.1 Transmission Owners That Own Facilities Financed by Local Furnishing Bonds.

This provision is applicable only to a Transmission Owner that has financed facilities for the local furnishing of electric energy with tax-exempt bonds, as described in Section 142(f) of the Internal Revenue Code (“local furnishing bonds”). Notwithstanding any other provision of the GIP or GIA, and, as applicable, FCA(s) and/or MPFCA(s), Transmission Provider and Transmission Owner shall not be required to provide Interconnection Service to Interconnection Customer or MHVDC Connection Customer pursuant to this GIA and GIP if the provision of such Transmission Service would jeopardize the tax-exempt status of any local furnishing bond(s) used to finance Transmission Owner’s facilities that would be used in providing such Interconnection Service.

13.6.2 Alternative Procedures for Requesting Interconnection Service.

If Transmission Provider determines that the provision of Interconnection Service requested by Interconnection Customer or MHVDC Connection Customer could jeopardize the tax-exempt status of any local furnishing bond(s) used to finance Transmission Owner’s facilities that would be used in providing such Interconnection Service. Transmission Provider shall notify Transmission Owner who then shall confirm the tax-exempt status of any local furnishing bond(s) used by Transmission Owner and

shall advise Interconnection Customer or MHVDC Connection Customer and Transmission Provider within thirty (30) Calendar Days of Transmission Provider's notice to Transmission Owner. Interconnection Customer or MHVDC Connection Customer thereafter may renew its request for interconnection using the process specified in Article 5.2(ii) of the Transmission Provider's Tariff.

SECTION 14. FAST TRACK PROCESS.

14.1 Applicability.

The Fast Track Process is available to an Interconnection Customer proposing to interconnect its Small Generating Facility with the Transmission System if the Small Generating Facility is no larger than 5 MW and if the Interconnection Customer's proposed Small Generating Facility meets the codes, standards, and certification requirements of Appendix 3 of this GIP, or Transmission Provider has reviewed the design or tested the proposed Small Generating Facility and is satisfied that it is safe to operate.

14.1.1 Capacity of the Small Generating Facility

The Interconnection Request shall be evaluated using the maximum capacity that the Small Generating Facility is capable of injecting into the Transmission Provider's electric system. However, if the maximum capacity that the Small Generating Facility is capable of injecting into the Transmission Provider's electric system is limited (e.g., through use of a control system, power relay(s), or other similar device settings or adjustments), then the Interconnection Customer must obtain the Transmission Provider's agreement, with such agreement not to be unreasonably withheld, that the manner in which the Interconnection Customer proposes to implement such a limit will not adversely affect the safety and reliability of the Transmission Provider's system. If the Transmission Provider does not so agree, then the Interconnection Request must be withdrawn or revised

to specify the maximum capacity that the Small Generating Facility is capable of injecting into the Transmission Provider's electric system without such limitations. Furthermore, nothing in this section shall prevent a Transmission Provider from considering an output higher than the limited output, if appropriate, when evaluating system protection impacts.

14.2 Initial Review.

Within fifteen (15) Business Days after Transmission Provider notifies Interconnection Customer it has received a complete Interconnection Request, Transmission Provider shall perform an initial review using the screens set forth below, shall notify Interconnection Customer of the results, and include with the notification copies of the analysis and data underlying the Transmission Provider's determinations under the screens.

14.2.1 Screens.

14.2.1.1 The proposed Small Generating Facility's Point of Interconnection must be on a portion of the Transmission System or Distribution System that is subject to the Transmission Provider's control under the Tariff.

14.2.1.2 For interconnection of a proposed Small Generating Facility to a radial distribution circuit, the aggregated generation, including the proposed Small Generating Facility, on the circuit shall not exceed fifteen percent (15%) of the line section annual peak load as most recently measured at the relevant substation. A line section is that portion of a Transmission Provider controlled electric system connected to a customer bounded by automatic sectionalizing devices or the end of the distribution line.

14.2.1.3 For interconnection of a proposed Small Generating Facility to the load side of spot network protectors, the proposed Small Generating Facility must use an inverter-based equipment package and, together with the aggregated other inverter-based generation, shall not exceed the smaller of five percent (5%) of a spot network's maximum load or 50 kW.

14.2.1.4 The proposed Small Generating Facility, in aggregation with other generation on the distribution circuit, shall not contribute more than ten percent (10%) to the distribution circuit's maximum fault current at the point on the high voltage (primary) level nearest the proposed point of change of ownership.

14.2.1.5 The proposed Small Generating Facility, in aggregate with other generation on the distribution circuit, shall not cause any distribution protective devices and equipment (including, but not limited to, substation breakers, fuse cutouts, and line reclosers), or Interconnection Customer equipment on the system to exceed eighty-seven and one half percent (87.5%) of the short circuit interrupting capability; nor shall the interconnection proposed for a circuit that already exceeds eighty-seven and one half (87.5%) of the short circuit interrupting capability.

14.2.1.6 Using the table below, determine the type of interconnection to a primary distribution line. This screen includes a review of the type of electrical service provided to the Interconnecting Customer, including line configuration and the transformer connection to limit the potential for creating over-voltages on the Transmission Provider's electric power system due to a loss of ground during the operating time of any anti-islanding function.

Primary Distribution Line Type	Type of Interconnection to Primary Distribution Line	Result/Criteria
Three-phase, three wire	3-phase or single phase, phase-to-phase	Pass screen
Three-phase, four wire	Effectively-grounded 3 phase or Single-phase, line-to-neutral	Pass screen

14.2.1.7 If the proposed Small Generating Facility is to be interconnected on single-phase shared secondary, the aggregate generation capacity on the shared secondary, including the proposed Small Generating Facility, shall not exceed 20 kW.

14.2.1.8 If the proposed Small Generating Facility is single-phase and is to be interconnected on a center tap neutral of a 240 volt service, its addition shall not create an imbalance between the two sides of the 240 volt service of more than twenty percent (20%) of the nameplate rating of the service transformer.

14.2.1.9 The Small Generating Facility, in aggregate with other generation interconnected to the transmission side of a substation transformer feeding the circuit where the Small Generating Facility proposes to interconnect shall not exceed 10 MW in an area where there are known, or posted, transient stability limitations to generating units located in the general electrical vicinity (*e.g.*, three or four transmission busses from the Point of Interconnection).

14.2.1.10 No construction of facilities by Transmission Provider on its own system shall be required to accommodate the Small Generating Facility.

14.2.2 If the proposed interconnection passes the screens, the Interconnection Request shall be approved and Transmission Provider will provide Interconnection Customer an executable interconnection agreement within five (5) Business Days after the determination.

14.2.3 If the proposed interconnection fails the screens, but Transmission Provider determines that the Small Generating Facility may nevertheless be interconnected consistent with safety, reliability, and power quality standards, Transmission Provider shall provide Interconnection Customer an executable interconnection agreement within five (5) Business Days after the determination.

14.2.4 If the proposed interconnection fails the screens, but Transmission Provider does not or cannot determine from the initial review that the Small Generating Facility may nevertheless be interconnected consistent with safety, reliability, and power quality standards unless Interconnection Customer is willing to consider minor modifications or further study, Transmission Provider shall provide Interconnection Customer with the opportunity to attend a customer options meeting.

14.3 Customer Options Meeting.

If Transmission Provider determines the Interconnection Request cannot be approved without (1) minor modifications at minimal cost, (2) a supplemental study or other additional studies or actions, or (3) incurring significant cost to address safety, reliability, or power quality problems, the Transmission Provider shall notify Interconnection Customer of that determination within five (5) Business Days after that determination and provide copies of all data and analyses underlying its conclusion. Within ten (10) Business Days of the Transmission Provider's determination, Transmission Provider shall offer to convene a customer options meeting with Transmission Provider to review possible Interconnection

Customer facility modifications or the screen analysis and related results, to determine what further steps are needed to permit the Small Generating Facility to be connected safely and reliably. At the time of notification of the Transmission Provider's determination, or at the customer options meeting, Transmission Provider shall:

14.3.1 Offer to perform facility modifications or minor modifications to the Transmission System (*e.g.*, changing meters, fuses, relay settings) and provide a non-binding good faith estimate of the limited cost to make such modifications to the Transmission System. If the Interconnection Customer agrees to pay for the modifications to the Transmission System, the Transmission Provider will provide the Interconnection Customer with an executable interconnection agreement within ten (10) Business Days of the customer options meeting; or

14.3.2 Offer to perform a supplemental review in accordance with Section 14.4 and provide a non-binding good faith estimate of the costs of such review; or

14.3.3 Obtain the Interconnection Customer's agreement to continue evaluating the Interconnection Request under the Attachment X Generator Interconnection Procedures.

14.4 Supplemental Review.

14.4.1 To accept the offer of a supplemental review, Interconnection Customer shall agree in writing and submit a deposit for the estimated costs of the supplemental review in the amount of the Transmission Provider's good faith estimate of the costs of such review, both within 15 Business Days of the offer. If the written agreement and deposit have not been received by

the Transmission Provider within that timeframe, the Interconnection Request shall continue to be evaluated under the Attachment X Generator Interconnection Procedures unless it is withdrawn by the Interconnection Customer.

- 14.4.2** The Interconnection Customer may specify the order in which the Transmission Provider will complete the screens in section 14.4.4.
- 14.4.3** The Interconnection Customer shall be responsible for the Transmission Provider's actual costs for conducting the supplemental review. The Interconnection Customer must pay any review costs that exceed the deposit within 20 Business Days of receipt of the invoice or resolution of any dispute. If the deposit exceeds the invoiced costs, the Transmission Provider will return such excess within 20 Business Days of the invoice without interest.
- 14.4.4** Within thirty (30) Business Days following receipt of the deposit for a supplemental review, the Transmission Provider shall (1) perform a supplemental review using the screens set forth below; (2) notify in writing the Interconnection Customer of the results; and (3) include with the notification copies of the analysis and data underlying the Transmission Provider's determinations under the screens. Unless the Interconnection Customer provided instructions for how to respond to the failure of any of the supplemental review screens below at the time the Interconnection Customer accepted the offer of supplemental review, the Transmission Provider shall notify the Interconnection Customer following the failure of any of the screens, or if it is unable to perform the screen in section 14.4.4.1, within two Business Days of making such determination to obtain the Interconnection Customer's permission to: (1) continue evaluating the proposed interconnection under this section

14.4.4; (2) terminate the supplemental review and continue evaluating the Small Generating Facility (the Attachment X Generator Interconnection Procedures); or (3) terminate the supplemental review upon withdrawal of the Interconnection Request by the Interconnection Customer.

14.4.4.1 Minimum Load Screen: Where 12 months of line section minimum load data (including onsite load but not station service load served by the proposed Small Generating Facility) are available, can be calculated, can be estimated from existing data, or determined from a power flow model, the aggregate Generating Facility capacity on the line section is less than 100% of the minimum load for all line sections bounded by automatic sectionalizing devices upstream of the proposed Small Generating Facility. If minimum load data is not available, or cannot be calculated, estimated or determined, the Transmission Provider shall include the reason(s) that it is unable to calculate, estimate or determine minimum load in its supplemental review results notification under section 14.4.4.

14.4.4.1.1 The type of generation used by the proposed Small Generating Facility will be taken into account when calculating, estimating, or determining circuit or line section minimum load relevant for the application of screen 14.4.1.1. Solar photovoltaic (PV) generation systems with no battery storage use daytime minimum load (i.e. 10 a.m. to 4 p.m. for fixed panel systems and 8 a.m. to 6 p.m. for PV systems utilizing tracking systems), while all other generation uses absolute minimum load.

14.4.4.1.2 When this screen is being applied to a Small Generating Facility that serves some station service load, only the net injection into the Transmission Provider's electric system will be considered as part of the aggregate generation.

14.4.4.1.3 Transmission Provider will not consider as part of the aggregate generation for purposes of this screen generating facility capacity known to be already reflected in the minimum load data.

14.4.4.2 Voltage and Power Quality Screen: In aggregate with existing generation on the line section: (1) the voltage regulation on the line section can be maintained in compliance with relevant requirements under all system conditions; (2) the voltage fluctuation is within acceptable limits as defined by Institute of Electrical and Electronics Engineers (IEEE) Standard 1453, or utility practice similar to IEEE Standard 1453; and (3) the harmonic levels meet IEEE Standard 519 limits.

14.4.4.3 Safety and Reliability Screen: The location of the proposed Small Generating Facility and the aggregate generation capacity on the line section do not create impacts to safety or reliability that cannot be adequately addressed without application of the Study Process. The Transmission Provider shall give due consideration to the following and other factors in determining potential impacts to safety and reliability in applying this screen.

14.4.4.3.1 Whether the line section has significant minimum loading levels dominated by a small number of customers (e.g., several large commercial customers).

14.4.4.3.2 Whether the loading along the line section is uniform or even.

14.4.4.3.3 Whether the proposed Small Generating Facility is located in close proximity to the substation (i.e., less than 2.5 electrical circuit miles), and whether the line section from the substation to the Point of Interconnection is a Mainline rated for normal and emergency ampacity.

14.4.4.3.4 Whether the proposed Small Generating Facility incorporates a time delay function to prevent reconnection of the generator to the system until system voltage and frequency are within normal limits for a prescribed time.

14.4.4.3.5 Whether operational flexibility is reduced by the proposed Small Generating Facility, such that transfer of the line section(s) of the Small Generating Facility to a neighboring distribution circuit/substation may trigger overloads or voltage issues.

14.4.4.3.6 Whether the proposed Small Generating Facility employs equipment or systems certified by a recognized standards organization to address technical issues such

as, but not limited to, islanding, reverse power flow, or voltage quality.

14.4.5 If the proposed interconnection passes the supplemental screens in sections 14.4.4.1, 14.4.4.2, and 14.4.4.3 above, the Interconnection Request shall be approved and the Transmission Provider will provide the Interconnection Customer with an executable interconnection agreement within the timeframes established in sections 14.4.5.1 and 14.4.5.2 below. If the proposed interconnection fails any of the supplemental review screens and the Interconnection Customer does not withdraw its Interconnection Request, it shall continue to be evaluated under the Attachment X Generator Interconnection Procedures consistent with section 14.4.5.3 below.

14.4.5.1 If the proposed interconnection passes the supplemental screens in sections 14.4.1.1, 14.4.1.2, and 14.4.1.3 above and does not require construction of facilities by the Transmission Provider on its own system, the interconnection agreement shall be provided within ten Business Days after the notification of the supplemental review results.

14.4.5.2 If interconnection facilities or minor modifications to the Transmission Provider's system are required for the proposed interconnection to pass the supplemental screens in sections 14.4.1.1, 14.4.1.2, and 14.4.1.3 above, and the Interconnection Customer agrees to pay for the modifications to the Transmission Provider's electric system, the interconnection agreement, along with a non-binding good faith estimate for the interconnection facilities and/or minor modifications, shall be provided to the

Interconnection Customer within 15 Business Days after receiving written notification of the supplemental review results.

14.4.5.3 If the proposed interconnection would require more than interconnection facilities or minor modifications to the Transmission Provider's system to pass the supplemental screens in sections 14.4.1.1, 14.4.1.2, and 14.4.1.3 above, the Transmission Provider shall notify the Interconnection Customer, at the same time it notifies the Interconnection Customer with the supplemental review results, that the Interconnection Request shall be evaluated under the Attachment X Generator Interconnection Procedures unless the Interconnection Customer withdraws its Small Generating Facility.

**SECTION 15. PROVISIONS FOR CONNECTION TO HVDC FACILITIES
SUBJECT TO SECTION 27A OF THE TARIFF.**

Interconnection Requests to HVDC Facilities that are subject to Section 27A of the Tariff shall follow the same process as detailed in Sections 2 through 13 of the GIP, except as specified in this Section 15.

15.1 Availability of ER Interconnection Service and NR Interconnection Service for HVDC Facilities subject to Section 27A of this Tariff.

ER Interconnection Service and NR Interconnection Service are both available for HVDC Facilities subject to Section 27A of this Tariff. In the case where Interconnection Customer identified a point-to-point transmission service request under Section 27A of this Tariff, NR Interconnection Service will qualify the Generating Facility to be designated as a Network Resource so long as (and to the extent that) HVDC Service is confirmed across the HVDC Facilities. NR

Interconnection Service will be limited to the confirmed megawatts in the transmission service request. When applicable, the HVDC Service requirement will be listed in Appendix A of the GIA, and such listing will be added during the negotiation phase of the document, as set forth in Section 11.2 of the GIP.

SECTION 16. PROVISIONS FOR OBTAINING INJECTION RIGHTS AND THEIR CONVERSION TO EXTERNAL NETWORK RESOURCE INTERCONNECTION SERVICE

16.1 Request for Injection Rights

MHDVC Connection Customers electing to request Injection Rights on the Transmission System pursuant to the procedures set forth in Section 3.2.3 of Attachment GGG to the Tariff shall make such requests for Injection Rights by submitting to Transmission Provider a completed Interconnection Request in the manner specified by the Generator Interconnection Business Practices Manual (BPM-015). The MHDVC Connection Customer must select “Injection Rights” in Appendix 1 and shall include all other relevant information required by Appendix 1 and its attachments. Requests for Injection Rights shall be studied and granted by Transmission Provider pursuant to the terms and conditions of the GIP, including requisite milestones and study deposits within the prescribed schedule deadlines.

Injection Rights serve as a pre-certification of the Transmission System’s capability to receive capacity and energy from the MHDVC Transmission Line at the requested Point of Connection, in the specified MW quantity, without degrading the reliability of the Transmission System. Injection Rights do not convey transmission service or Interconnection Service to the MHDVC Connection Customer or any other entity. Any such Injection Rights granted by Transmission Provider, and any increases or reductions to those Injection Rights, shall be documented in Appendix F to the Transmission Connection Agreement. Requests for Injection Rights will be treated similar to requests for Interconnection Service from a queue priority perspective.

16.2 Conversion of Injection Rights to External Network Resource Interconnection Service

Before an Interconnection Customer with an Existing Generating Facility that is external to the Transmission System may offer energy or capacity across the MHVDC Transmission Line into the MISO markets, the Injection Rights granted pursuant to Section 3.2.3 of Attachment GGG to the Tariff and this Section 16 must be converted to external Network Resource Interconnection Service and transferred to that Interconnection Customer. Upon the request of an Interconnection Customer with an Existing Generating Facility for external Network Resource Interconnection Service via the MHVDC Transmission Line, Transmission Provider will convert the Injection Rights to external Network Resource Interconnection Service in an amount up to, but not greater than, the capacity of the MHVDC Transmission Line, and transfer that amount of external Network Resource Interconnection Service to that Interconnection Customer, subject to the conditions set forth below.

Prior to effectuating this conversion, Transmission Provider must receive the following information:

- (a) from the Interconnection Customer seeking conversion:
 - (i) a request for external Network Resource Interconnection Service pursuant to Appendix 1 of Attachment X, by including the requested MW quantity to be converted and transferred;
 - (ii) documentation of the agreement between the Interconnection Customer and the MHVDC Connection Customer authorizing the conversion and transfer of the requested amount of Injection Rights;
 - (iii) documentation that the Interconnection Customer has long-term firm transmission service from the Existing Generating Facility to the Point of Connection, including any transmission service agreements over the MHVDC Transmission Line, that complies with the requirements included in the Service Agreement for Network Resources Interconnection Service for an

- Existing Generating Facility as set forth in Appendix 13 of Attachment X; and
- (b) from the MHVDC Connection Customer that holds the Injection Rights being converted:
- (i) documentation of the MHVDC Connection Customer's procedures for the allocation of Injection Rights to Interconnection Customers, which shall be non-discriminatory and consistent with the Commission's approval of the MHVDC Connection Customer's right to charge negotiated (market based) rates for service on the applicable MHVDC Transmission Line.

Upon receipt of the required information, Transmission Provider will convert the requested amount of the MHVDC Connection Customer's Injection Rights into external Network Resource Interconnection Service and grant the external Network Resource Interconnection Service to the Interconnection Customer, subject to the Interconnection Customer executing the Service Agreement for external Network Resource Interconnection Service for an Existing Generating Facility as set forth in Appendix 13 to Attachment X. All terms and conditions of such Service Agreement for external Network Resource Interconnection Service for an Existing Generating Facility and all the terms and conditions of Attachment X, including the rights to termination of Interconnection Service, shall apply to the Interconnection Customer's external Network Resource Interconnection Service granted under this Article 16. After conversion of the Injection Rights, Transmission Provider shall document any remaining Injection Rights in Appendix F of the MHVDC Connection Customer's Transmission Connection Agreement and shall post the Interconnection Customer's external Network Resource Interconnection Service pursuant to the posting guidelines contained in Attachment X.

A request by an Interconnection Customer for a conversion of Injection Rights into external Network Resource Interconnection Service pursuant to this Section 16.2, shall not require any additional studies in the Definitive Planning Phase to the extent such studies have been performed as part of the MHVDC Connection Customer's request for Injection Rights. To the extent the MHVDC Connection Customer made the Definitive Planning Phase Milestone Payments (M2, M3, and M4) required in connection with its request for Injection Rights and

evaluation, an Interconnection Customer obtaining a conversion to external Network Resource Interconnection Service based on the same request for Injection Rights shall not be required to make any additional Milestone Payments to Transmission Provider.

Any conversion to external Network Resource Interconnection Service under this Section 16.2 shall occur within three (3) years from the Commercial Operation Date for the MHVDC Transmission Line, as set forth in Appendix C of the Transmission Connection Agreement. Failure to convert any amount of the Injection Rights to external Network Resource Interconnection Service within the time period specified above shall result in termination of Injection Rights with respect to such unconverted amount. In the event any external Network Resource Interconnection Service obtained pursuant to this Section 16 terminates more than three (3) years after the Commercial Operation Date for the MHVDC Transmission Line, as set forth in Appendix C of the Transmission Connection Agreement, such terminated external Network Resource Interconnection Service may not revert back to Injection Rights.

SECTION 17. FACILITIES SERVICE AGREEMENT.

In the event that the Transmission Owner elects to fund the capital for the Network Upgrades and the Transmission Owner's System Protection Facilities, the Interconnection Customer, Transmission Owner, and Transmission Provider shall enter into a Facilities Service Agreement to memorialize the terms of repayment for those Network Upgrades and Transmission Owner's System Protection Facilities that the Transmission Owner elected to self-fund. The Facilities Service Agreement shall take the form of the *pro forma* Facilities Service Agreement that is included as Appendix 14 of Attachment X of the MISO Tariff. The Facilities Service Agreement shall be subject to the terms and conditions of Attachment X, including the rights to termination of Interconnection Service. The Interconnection Customer and/or the Transmission Owner may request in writing that Transmission Provider file the Facilities Service Agreement with FERC in unexecuted form.

APPENDICES TO GIP

APPENDIX 1	INTERCONNECTION REQUEST FOR A GENERATING FACILITY
APPENDIX 2	RESERVED
APPENDIX 3	CERTIFICATION CODES AND STANDARDS AND CERTIFICATION OF SMALL GENERATOR EQUIPMENT PACKAGES
APPENDIX 4	APPLICATION, PROCEDURES, AND TERMS AND CONDITIONS FOR INTERCONNECTING A CERTIFIED INVERTER-BASED SMALL GENERATING FACILITY NO LARGER THAN 10 KW (“10 KW INVERTER PROCESS”)
APPENDIX 5	OPTIONAL INTERCONNECTION STUDY AGREEMENT
APPENDIX 6	STANDARD GENERATOR INTERCONNECTION AGREEMENT
APPENDIX 7	INTERCONNECTION PROCEDURES FOR A WIND GENERATING PLANT
APPENDIX 8	FACILITIES CONSTRUCTION AGREEMENT
APPENDIX 9	MULTI-PARTY FACILITIES CONSTRUCTION AGREEMENT
APPENDIX 10	INTERCONNECTION STUDY MODEL REVIEW FORM
APPENDIX 11	MONITORING AND CONSENT AGREEMENT
APPENDIX 12	ENERGY DISPLACEMENT AGREEMENT
APPENDIX 13	EXTERNAL NETWORK RESOURCE INTERCONNECTION SERVICE AGREEMENT
APPENDIX 14	FACILITIES SERVICE AGREEMENT