



1800 Larimer Street
Denver, CO 80202

July 12, 2022

VIA ELECTRONIC FILING

The Honorable Kimberly D. Bose, Secretary
Federal Energy Regulatory Commission
888 First Street, N.E.
Washington, DC 20426

**Re: *Public Service Company of Colorado*
Xcel Energy Operating Companies Open Access Transmission Tariff
Docket No. ER22-___-000
Order No. 881 Compliance Filing**

Dear Secretary Bose:

Pursuant to sections 205 and 206 of the Federal Power Act, 16 U.S.C. §§ 824d and 824e, part 35 of the Federal Energy Regulatory Commission’s (“FERC” or “Commission”) regulations, 18 C.F.R. § 35 (2021), Order No. 881,¹ Order No. 881-A² and Order No. 714,³ Public Service Company of Colorado (“PSCo”)⁴ submits revisions to the Xcel Energy Operating Companies FERC Electric Tariff, Third Revised Volume No. 1 (“Xcel Energy Tariff” or “Tariff”).⁵ The revisions incorporate a new Attachment S “Transmission Line Ratings”. PSCo respectfully requests an effective of July 12, 2025, the date determined in Order Nos. 881 and confirmed in 881-A.

I. BACKGROUND

A. Public Service Company of Colorado

PSCo is a wholly-owned subsidiary of Xcel Energy Inc. (“Xcel Energy”), a public utility holding company. PSCo is an integrated electric utility that, *inter alia*, generates, transmits, distributes, and sells regulated, cost-based electric energy to approximately 1.5 million retail customers in the state of Colorado subject to the jurisdiction of the Colorado

¹ *Managing Transmission Line Ratings*, Order No. 881, 177 FERC ¶ 61,179 (2021) (“Order No. 881”).

² *Managing Transmission Line Ratings*, Order No. 881-A, 179 FERC ¶ 61,125 (2022) (“Order No. 881-A”).

³ *Electronic Tariff Filings*, FERC Stats. & Regs. ¶ 31,276 (2008) (“Order No. 714”).

⁴ PSCo is the designated e-Tariff filing entity for the Open Access Transmission Tariff of Northern States Power Company, Northern States Power Company (Wisconsin), Public Service Company of Colorado, and Southwest Public Service Company (“Xcel Energy Tariff” or “Joint OATT”), consistent with the requirements of Order No. 714.

⁵ Xcel Energy Operating Companies, FERC Electric Tariff, Second Revised Volume No. 1.

Public Utilities Commission (“CPUC”).⁶ PSCo also provides wholesale, cost-based power sales (production) services to five wholesale customers pursuant to rate schedules on file with the Commission. PSCo provides open-access wholesale transmission service and ancillary-only services to transmission customers and ancillary services customers under Parts II, III, or IV of the Xcel Energy Tariff, respectively. PSCo plans to join SPP’s Western Energy Imbalance Service (WEIS) market in 2023 and, along with many other western utilities, is currently evaluating various other future market options. NSP Companies’ and SPS’s compliance with Order No. 881 is achieved through Midcontinent Independent System Operator, Inc (“MISO”) and Southwest Power Pool, Inc. (“SPP”) respectively.⁷

II. COMPLIANCE AND DESCRIPTION OF AMENDMENTS

A. New Transmission Line Rating Attachment and Implementation

PSCo is proposing to incorporate the *pro forma* Attachment M “Transmission Line Ratings” as a new Attachment S to the Tariff with an effective date three years after this instant filing as required by Order No. 881. PSCo proposes four clarifying edits to this Attachment S. The first edit clarifies that transmission line ratings are calculated for North American Reliability Corporation (NERC) bulk electric system (BES) transmission lines over which PSCo sells transmission service. This ensures alignment between the tariff and NERC standards; PSCo currently calculates ratings for lines that are North American Reliability Corporation (NERC) bulk electric system (BES) transmission lines in compliance with eh NERC standards. The second edit is to the definition of “Seasonal Line Rating” that clarifies the forecast used to determine the seasonal rating may be based largely on historical data. This is likely the most accurate approach to determine the expected ambient seasonal temperature currently available. The third and fourth proposed edits to the *pro forma* Transmission Line Rating attachment clarifies that transmission service (both Point-To-Point and Network) may be curtailed close to real-time based on actual scheduled deliveries. At times some paths are oversubscribed, but not fully utilized. Curtailing based on forecast ATC and reservations may result in unnecessarily curtailing transactions. Instead of curtailing based on reserved capacity and ATC, PSCo tends to curtail transactions based on actual scheduled deliveries. This is PSCo’s current practice and will mitigate the issue of unnecessarily curtailing reservations days ahead of real-time due to changes in ambient temperature forecasts.

⁶ Xcel Energy Services, Inc. (“XES”) is the centralized service company for the Xcel Energy holding company system. As such, XES makes filings with, and appears in proceedings before, the Commission on behalf of PSCo and the other Xcel Energy Operating Companies. The other Xcel Energy Operating Companies are Northern States Power Company, a Minnesota corporation, Northern States Power Company, a Wisconsin corporation (collectively “NSP” or the “NSP Companies”), and Southwestern Public Service Company (“SPS”).

⁷ The NSP Companies operate in the MISO region, and SPS operates in the SPP region. The proposed revisions thus would not impact interconnection to the NSP Companies or SPS systems.

PSCo, along with the other Xcel Energy operating companies, is working diligently to comply with Order No. 881 and implement ambient adjusted line ratings. This effort is still in early stages, and many aspects of the implementation are still being developed. Aspects of implementation that are still to-be-developed include the detailed process and timeline for gathering weather data, using the data to calculate ratings and incorporating the updated ratings into various applications such as real-time contingency analysis and OASIS. PSCo also plans to join the SPP's Western Energy Imbalance Service Market (WEIS) in 2023 and may participate in other western market activities prior to the 2025 effective date. Under the WEIS, PSCo will provide updated ratings to SPP and SPP will use those ratings in market dispatch.

III. ADDITIONAL INFORMATION SUBMITTED IN SUPPORT OF FILING

A. Information Required by Section 35.13 of the Commission's Regulations, 18 C.F.R. § 35.13

1. Contents of Filing – Section 35.13(b)(1)

In addition to this transmittal letter, this filing includes the following:

- Attachment S, in clean eTariff format;
- Attachment S in marked format.
- Attachment S marked against the *pro forma* attachment M from Order No. 881.

2. Requested Effective Date – Section 35.13(b)(2) Waiver Request

PSCo respectfully requests an effective date of July 12, 2025, three years after filing as required under Order 881 and 881-A. PSCo respectfully requests that the Commission grant a waiver of the sixty (60) day notice requirements of 18 C.F.R. § 35.3(a)(1), and any other rule or regulatory provision that may be deemed necessary, in order to accept the proposed revisions to the PSCo Tariff and to grant the requested effective date.⁸

Good cause exists to grant the requested waiver because Order No. 881 requires transmission providers implement the ambient adjusted line ratings three years after the compliance filing. Making the attachment effective before implementation will cause confusion to customers.

⁸ Because this filing is being made, in part, under Section 206 in compliance with a Commission rule, PSCo does not believe an effective date 60 days after the filing is required. If the Commission believes the 60-day notice requirement stands, PSCo specifically requests a waiver under 18 C.F.R. § 35.11 of the 60 day notice requirement in 18 C.F.R. § 35.3(a)(1).

3. The Names and Addresses of Persons to Whom a Copy of the Rate Change Has Been Posted – Section 35.13(b)(3)

An electronic notice of this filing will be served on the Colorado Public Utilities Commission and all affected PSCo transmission service customers and ancillary service customers taking service under the Xcel Energy Tariff.⁹ A courtesy copy will be served on the Commission's Director of the Division of Electric Power Regulation (West). Pursuant to 18 C.F.R. § 35.2(d), a copy of this filing will be posted for public inspection at the offices of Xcel Energy – Transmission Services at 414 Nicollet Mall – 6th Floor, Minneapolis, Minnesota 55401; and at the offices of PSCo – Transmission at 18201 West 10th Avenue, Golden, Colorado 80401. A copy of the filing also will be posted at the OASIS/Open Access Transmission Tariff link at the Transmission page of the Xcel Energy Inc. website (<http://www.transmission.xcelenergy.com>).

4. Brief Description of Rate Change – Section 35.13(b)(4)

See Sections I and II above.

5. Statement of Reasons for Rate Change – Section 35.13(b)(5)

See Sections I and II above.

6. Requisite Agreement for Rate Change – Section 35.13(b)(6)

No agreement by any third party is required for PSCo to file or implement the proposed Tariff revisions.

IV. COMMUNICATIONS AND CORRESPONDENCE

⁹ Since the identity of entities requesting generation interconnection is not public, PSCo will provide notice through a blind copy email that does not identify the generator interconnection recipient email addresses.

Correspondence and communications with respect to this filing should be sent to, and XES requests the Secretary include on the official service list, the following:¹⁰

Timothy T. Mastrogiacono
Lead Assistant General Counsel
Xcel Energy Services Inc.
701 Pennsylvania Avenue NW Ste. 250
Washington, DC 20006
(202) 661-4481
Tim.T.Mastrogiacono@xcelenergy.com

Liam Noailles
Manager, Federal Regulatory Affairs
Xcel Energy Services Inc.
1800 Larimer St., Suite 1200
Denver, CO 80202
Telephone: (303) 571-2794
Liam.D.Noailles@xcelenergy.com

V. CONCLUSION

PSCo sincerely appreciates the Commission's review of this filing. PSCo respectfully requests that the Commission accept the revised eTariff records, to be effective July 12, 2025. Please direct any questions regarding this instant filing to Dr. Liam Noailles at (303) 571-2794.

Respectfully submitted,

/s/ Liam D. Noailles

Dr. Liam D. Noailles
Manager, Federal Regulatory Affairs
Xcel Energy Services Inc.
1800 Larimer St., Suite 1200
Denver, CO 80202
Telephone: (303) 571-2794
Email: Liam.D.Noailles@xcelenergy.com

Cc: PSCo Tariff Customers
Director, Division of Tariffs and Market Development (West)

¹⁰ To the extent necessary, XES respectfully requests waiver of Rule 203(b)(3) of the Commission's Rules of Practice and Procedure, 18 C.F.R. § 385.203(b), to permit all of the persons listed to be placed on the official service list for this proceeding.

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CERTIFICATE OF SERVICE

I, Kristin J. Anderson, hereby certify that I have this day electronically served a notice of the enclosed filing on the state Colorado Public Utilities Commission, on each customer taking transmission service from PSCo under the Xcel Energy Tariff.

Dated at Minneapolis, Minnesota this 12th day of July, 2022.

/s/ Kristin J. Anderson

Kristin J. Anderson

Xcel Energy/Responsible by Nature

Transmission Business Analyst

414 Nicollet Mall, 6th Floor

Minneapolis, MN 55401

(612) 337-2058

kristin.j.anderson@xcelenergy.com

Proposed Effective Date: 7/12/2025

ATTACHMENT S

Transmission Line Ratings

General:

Beginning July 12, 2025, the Transmission Provider will implement Transmission Line Ratings on the North American Electric Reliability Corporation (NERC) bulk electric system (BES) transmission lines over which it provides Transmission Service, as provided below.

Definitions:

The following definitions apply for purposes of this Attachment:

- (1) "Transmission Line Rating" means the maximum transfer capability of a transmission line, computed in accordance with a written Transmission Line Rating methodology and consistent with Good Utility Practice, considering the technical limitations on conductors and relevant transmission equipment (such as thermal flow limits), as well as technical limitations of the Transmission System (such as system voltage and stability limits). Relevant transmission equipment may include, but is not limited to, circuit breakers, line traps, and transformers.
- (2) "Ambient-Adjusted Rating" (AAR) means a Transmission Line Rating that:
 - (a) Applies to a time period of not greater than one hour.
 - (b) Reflects an up-to-date forecast of ambient air temperature across the time period to which the rating applies.
 - (c) Reflects the absence of solar heating during nighttime periods, where the local sunrise/sunset times used to determine daytime and nighttime periods are updated at least monthly, if not more frequently.
 - (d) Is calculated at least each hour, if not more frequently.
- (3) "Seasonal Line Rating" means a Transmission Line Rating that:
 - (a) Applies to a specified season, where seasons are defined by the Transmission Provider to include not fewer than four seasons in each year, and to reasonably reflect portions of the year where expected high temperatures are relatively consistent.
 - (b) Reflects an up-to-date forecast of ambient air temperature across the relevant season over which the rating applies. The forecast used to determine the seasonal rating may largely be based on historical ambient air temperatures observed during the season.

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- (c) Is calculated annually, if not more frequently, for each season in the future for which Transmission Service can be requested.
- (4) “Near-Term Transmission Service” means Transmission Service which ends not more than 10 days after the Transmission Service request date. When the description of obligations below refers to either a request for information about the availability of potential Transmission Service (including, but not limited to, a request for ATC), or to the posting of ATC or other information related to potential service, the date that the information is requested or posted will serve as the Transmission Service request date. “Near-Term Transmission Service” includes any Point-To-Point Transmission Service, Network Resource designations, or secondary service where the start and end date of the designation or request is within the next 10 days.
- (5) “Emergency Rating” means a Transmission Line Rating that reflects operation for a specified, finite period, rather than reflecting continuous operation. An Emergency Rating may assume an acceptable loss of equipment life or other physical or safety limitations for the equipment involved.

System Reliability:

If the Transmission Provider reasonably determines, consistent with Good Utility Practice, that the temporary use of a Transmission Line Rating different than would otherwise be required by this Attachment is necessary to ensure the safety and reliability of the Transmission System, then the Transmission Provider may use such an alternate rating. The Transmission Provider must document in its database of Transmission Line Ratings and Transmission Line Rating methodologies on OASIS or another password-protected website, as required by this Attachment, the use of an alternate Transmission Line Rating under this paragraph, including the nature of and basis for the alternate rating, the date and time that the alternate rating was initiated, and (if applicable) the date and time that the alternate rating was withdrawn and the standard rating became effective again.

Obligations of Transmission Provider:

The Transmission Provider will have the following obligations.

The Transmission Provider must use AARs as the relevant Transmission Line Ratings when performing any of the following functions: (1) evaluating requests for Near-Term Transmission Service; (2) responding to requests for information on the availability of potential Near-Term Transmission Service (including requests for ATC or other information related to potential service); or (3) posting ATC or other information related to Near-Term Transmission Service to the Transmission Provider’s OASIS site or another password-protected website.

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The Transmission Provider must use AARs as the relevant Transmission Line Ratings when determining whether to curtail (under section 13.6) Firm Point-To-Point Transmission Service or when determining whether to curtail and/or interrupt (under section 14.7) Non-Firm Point-To-Point Transmission Service if such curtailment and/or interruption is both necessary because of issues related to flow limits on transmission lines and anticipated to occur (start and end) within 10 days of such determination. Transmission Provider may curtail Transmission Service close to real-time based on scheduled service even if changes in ambient temperature forecasts identify negative ATC in the 10-day horizon. For determining whether to curtail or interrupt Point-To-Point Transmission Service in other situations, the Transmission Provider must use Seasonal Line Ratings as the relevant Transmission Line Ratings.

The Transmission Provider must use AARs as the relevant Transmission Line Ratings when determining whether to curtail (under section 33) or redispatch (under sections 30.5 and/or 33) Network Integration Transmission Service or secondary service if such curtailment or redispatch is both necessary because of issues related to flow limits on transmission lines and anticipated to occur (start and end) within 10 days of such determination. Transmission Provider may curtail Transmission Service close to real-time based on scheduled service even if changes in ambient temperature forecasts identify negative ATC in the 10-day horizon. For determining the necessity of curtailment or redispatch of Network Integration Transmission Service or secondary service in other situations, the Transmission Provider must use Seasonal Line Ratings as the relevant Transmission Line Ratings.

The Transmission Provider must use Seasonal Line Ratings as the relevant Transmission Line Ratings when evaluating requests for and whether to curtail, interrupt, or redispatch any Transmission Service not otherwise covered above in this section (including, but not limited to, requests for non-Near-Term Transmission Service or requests to designate or change the designation of Network Resources or Network Load), when developing any ATC or other information posted or provided to potential customers related to such services. The Transmission Provider must use Seasonal Line Ratings as a recourse rating in the event that an AAR otherwise required to be used under this Attachment is unavailable.

The Transmission Provider must use uniquely determined Emergency Ratings for contingency analysis in the operations horizon and in post-contingency simulations of constraints. Such uniquely determined Emergency Ratings must also include separate AAR calculations for each Emergency Rating duration used.

In developing forecasts of ambient air temperature for AARs and Seasonal Line Ratings, the Transmission Provider must develop such forecasts consistent with Good Utility Practice and on a non-discriminatory basis.

Postings to OASIS or another password-protected website: The Transmission Provider must maintain on the password-protected section of its OASIS page or on another password-protected website a database of Transmission Line Ratings and Transmission Line Rating methodologies. The database must include a full record of all Transmission Line Ratings, both as used in real-time operations, and as used for all future periods for

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which Transmission Service is offered. Any postings of temporary alternate Transmission Line Ratings or exceptions used under the System Reliability section above or the Exceptions section below, respectively, are considered part of the database. The database must include records of which Transmission Line Ratings and Transmission Line Rating methodologies were in effect at which times over at least the previous five years, including records of which temporary alternate Transmission Line Ratings or exceptions were in effect at which times during the previous five years. Each record in the database must indicate which transmission line the record applies to, and the date and time the record was entered into the database. The database must be maintained such that users can view, download, and query data in standard formats, using standard protocols.

Sharing with Transmission Providers: The Transmission Provider must share, upon request by any Transmission Provider and in a timely manner, the following information:

- (1) Transmission Line Ratings for each period for which Transmission Line Ratings are calculated, with updated ratings shared each time Transmission Line Ratings are calculated, and
- (2) Written Transmission Line Rating methodologies used to calculate the Transmission Line Ratings in (1) above.

Exceptions: Where the Transmission Provider determines, consistent with Good Utility Practice, that the Transmission Line Rating of a transmission line is not affected by ambient air temperature or solar heating, the Transmission Provider may use a Transmission Line Rating for that transmission line that is not an AAR or Seasonal Line Rating. Examples of such a transmission line may include (but are not limited to): (1) a transmission line for which the technical transfer capability of the limiting conductors and/or limiting transmission equipment is not dependent on ambient air temperature or solar heating; or (2) a transmission line whose transfer capability is limited by a Transmission System limit (such as a system voltage or stability limit) which is not dependent on ambient air temperature or solar heating. The Transmission Provider must document in its database of Transmission Line Ratings and Transmission Line Rating methodologies on OASIS or another password-protected website any exceptions to the requirements contained in this Attachment initiated under this paragraph, including the nature of and basis for each exception, the date(s) and time(s) that the exception was initiated, and (if applicable) the date(s) and time(s) that each exception was withdrawn and the standard rating became effective again. If the technical basis for an exception under this paragraph changes, then the Transmission Provider must update the relevant Transmission Line Rating(s) in a timely manner. The Transmission Provider must reevaluate any exceptions taken under this paragraph at least every five years.

ATTACHMENT S

Transmission Line Ratings

General:

Beginning July 12, 2025, the Transmission Provider will implement Transmission Line Ratings on the North American Electric Reliability Corporation (NERC) bulk electric system (BES) transmission lines over which it provides Transmission Service, as provided below.

Definitions:

The following definitions apply for purposes of this Attachment:

(1) "Transmission Line Rating" means the maximum transfer capability of a transmission line, computed in accordance with a written Transmission Line Rating methodology and consistent with Good Utility Practice, considering the technical limitations on conductors and relevant transmission equipment (such as thermal flow limits), as well as technical limitations of the Transmission System (such as system voltage and stability limits). Relevant transmission equipment may include, but is not limited to, circuit breakers, line traps, and transformers.

(2) "Ambient-Adjusted Rating" (AAR) means a Transmission Line Rating that:

(a) Applies to a time period of not greater than one hour.

(b) Reflects an up-to-date forecast of ambient air temperature across the time period to which the rating applies.

(c) Reflects the absence of solar heating during nighttime periods, where the local sunrise/sunset times used to determine daytime and nighttime periods are updated at least monthly, if not more frequently.

(d) Is calculated at least each hour, if not more frequently.

(3) "Seasonal Line Rating" means a Transmission Line Rating that:

(a) Applies to a specified season, where seasons are defined by the Transmission Provider to include not fewer than four seasons in each year, and to reasonably reflect portions of the year where expected high temperatures are relatively consistent.

(b) Reflects an up-to-date forecast of ambient air temperature across the relevant season over which the rating applies. The forecast used to determine the seasonal rating may largely be based on historical ambient air temperatures observed during the season.

(c) Is calculated annually, if not more frequently, for each season in the future for which Transmission Service can be requested.

(4) “Near-Term Transmission Service” means Transmission Service which ends not more than 10 days after the Transmission Service request date. When the description of obligations below refers to either a request for information about the availability of potential Transmission Service (including, but not limited to, a request for ATC), or to the posting of ATC or other information related to potential service, the date that the information is requested or posted will serve as the Transmission Service request date. “Near-Term Transmission Service” includes any Point-To-Point Transmission Service, Network Resource designations, or secondary service where the start and end date of the designation or request is within the next 10 days.

(5) “Emergency Rating” means a Transmission Line Rating that reflects operation for a specified, finite period, rather than reflecting continuous operation. An Emergency Rating may assume an acceptable loss of equipment life or other physical or safety limitations for the equipment involved.

System Reliability:

If the Transmission Provider reasonably determines, consistent with Good Utility Practice, that the temporary use of a Transmission Line Rating different than would otherwise be required by this Attachment is necessary to ensure the safety and reliability of the Transmission System, then the Transmission Provider may use such an alternate rating. The Transmission Provider must document in its database of Transmission Line Ratings and Transmission Line Rating methodologies on OASIS or another password-protected website, as required by this Attachment, the use of an alternate Transmission Line Rating under this paragraph, including the nature of and basis for the alternate rating, the date and time that the alternate rating was initiated, and (if applicable) the date and time that the alternate rating was withdrawn and the standard rating became effective again.

Obligations of Transmission Provider:

The Transmission Provider will have the following obligations.

The Transmission Provider must use AARs as the relevant Transmission Line Ratings when performing any of the following functions: (1) evaluating requests for Near-Term Transmission Service; (2) responding to requests for information on the availability of potential Near-Term Transmission Service (including requests for ATC or other information related to potential service); or (3) posting ATC or other information related to Near-Term Transmission Service to the Transmission Provider’s OASIS site or another password-protected website.

The Transmission Provider must use AARs as the relevant Transmission Line Ratings when determining whether to curtail (under section 13.6) Firm Point-To-Point Transmission Service or when determining whether to curtail and/or interrupt (under section 14.7) Non-Firm Point-To-Point Transmission Service if such curtailment and/or interruption is both necessary because of issues related to flow limits on transmission lines and anticipated to occur (start and end) within 10 days of such determination. Transmission Provider may curtail Transmission Service close to real-time based on scheduled service even if changes in ambient temperature forecasts identify negative ATC in the 10-day horizon. For determining whether to curtail or interrupt Point-To-Point Transmission Service in other situations, the Transmission Provider must use Seasonal Line Ratings as the relevant Transmission Line Ratings.

The Transmission Provider must use AARs as the relevant Transmission Line Ratings when determining whether to curtail (under section 33) or redispatch (under sections 30.5 and/or 33) Network Integration Transmission Service or secondary service if such curtailment or redispatch is both necessary because of issues related to flow limits on transmission lines and anticipated to occur (start and end) within 10 days of such determination. Transmission Provider may curtail Transmission Service close to real-time based on scheduled service even if changes in ambient temperature forecasts identify negative ATC in the 10-day horizon. For determining the necessity of curtailment or redispatch of Network Integration Transmission Service or secondary service in other situations, the Transmission Provider must use Seasonal Line Ratings as the relevant Transmission Line Ratings.

The Transmission Provider must use Seasonal Line Ratings as the relevant Transmission Line Ratings when evaluating requests for and whether to curtail, interrupt, or redispatch any Transmission Service not otherwise covered above in this section (including, but not limited to, requests for non-Near-Term Transmission Service or requests to designate or change the designation of Network Resources or Network Load), when developing any ATC or other information posted or provided to potential customers related to such services. The Transmission Provider must use Seasonal Line Ratings as a recourse rating in the event that an AAR otherwise required to be used under this Attachment is unavailable.

The Transmission Provider must use uniquely determined Emergency Ratings for contingency analysis in the operations horizon and in post-contingency simulations of constraints. Such uniquely determined Emergency Ratings must also include separate AAR calculations for each Emergency Rating duration used.

In developing forecasts of ambient air temperature for AARs and Seasonal Line Ratings, the Transmission Provider must develop such forecasts consistent with Good Utility Practice and on a non-discriminatory basis.

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which Transmission Service is offered. Any postings of temporary alternate Transmission Line Ratings or exceptions used under the System Reliability section above or the Exceptions section below, respectively, are considered part of the database. The database must include records of which Transmission Line Ratings and Transmission Line Rating methodologies were in effect at which times over at least the previous five years, including records of which temporary alternate Transmission Line Ratings or exceptions were in effect at which times during the previous five years. Each record in the database must indicate which transmission line the record applies to, and the date and time the record was entered into the database. The database must be maintained such that users can view, download, and query data in standard formats, using standard protocols.

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ATTACHMENT SM

Transmission Line Ratings

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- (2) “Ambient-Adjusted Rating” (AAR) means a Transmission Line Rating that:
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 - (b) Reflects an up-to-date forecast of ambient air temperature across the relevant season over which the rating applies. The forecast used to determine the seasonal rating may largely be based on historical ambient air temperatures observed during the season.
 - (c) Is calculated annually, if not more frequently, for each season in the future for which Transmission Service can be requested.
- (4) “Near-Term Transmission Service” means Transmission Service which ends not more than 10 days after the Transmission Service request date. When the description of obligations below refers to either a request for information about the availability of potential Transmission Service (including, but not limited to, a request for ATC), or to the posting of ATC or other information related to potential service, the date that the information is requested or posted will serve as the Transmission Service request date. “Near-Term Transmission Service” includes any Point-To-Point Transmission Service, Network Resource designations, or secondary service where the start and end date of the designation or request is within the next 10 days.
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time that the alternate rating was initiated, and (if applicable) the date and time that the alternate rating was withdrawn and the standard rating became effective again.

Obligations of Transmission Provider:

The Transmission Provider will have the following obligations.

The Transmission Provider must use AARs as the relevant Transmission Line Ratings when performing any of the following functions: (1) evaluating requests for Near-Term Transmission Service; (2) responding to requests for information on the availability of potential Near-Term Transmission Service (including requests for ATC or other information related to potential service); or (3) posting ATC or other information related to Near-Term Transmission Service to the Transmission Provider's OASIS site or another password-protected website.

The Transmission Provider must use AARs as the relevant Transmission Line Ratings when determining whether to curtail (under section 13.6) Firm Point-To-Point Transmission Service or when determining whether to curtail and/or interrupt (under section 14.7) Non-Firm Point-To-Point Transmission Service if such curtailment and/or interruption is both necessary because of issues related to flow limits on transmission lines and anticipated to occur (start and end) within 10 days of such determination. Transmission Provider may curtail Transmission Service close to real-time based on scheduled service even if changes in ambient temperature forecasts identify negative ATC in the 10-day horizon. For determining whether to curtail or interrupt Point-To-Point Transmission Service in other situations, the Transmission Provider must use Seasonal Line Ratings as the relevant Transmission Line Ratings.

The Transmission Provider must use AARs as the relevant Transmission Line Ratings when determining whether to curtail (under section 33) or redispatch (under sections 30.5 and/or 33) Network Integration Transmission Service or secondary service if such curtailment or redispatch is both necessary because of issues related to flow limits on transmission lines and anticipated to occur (start and end) within 10 days of such determination. Transmission Provider may curtail Transmission Service close to real-time based on scheduled service even if changes in ambient temperature forecasts identify negative ATC in the 10-day horizon. For determining the necessity of curtailment or redispatch of Network Integration Transmission Service or secondary service in other situations, the Transmission Provider must use Seasonal Line Ratings as the relevant Transmission Line Ratings.

The Transmission Provider must use Seasonal Line Ratings as the relevant

Transmission Line Ratings when evaluating requests for and whether to curtail, interrupt, or redispatch any Transmission Service not otherwise covered above in this section (including, but not limited to, requests for non-Near-Term Transmission Service or requests to designate or change the designation of Network Resources or Network Load), when developing any ATC or other information posted or provided to potential customers related to such services. The Transmission Provider must use Seasonal Line Ratings as a recourse rating in the event that an AAR otherwise required to be used under this Attachment is unavailable.

The Transmission Provider must use uniquely determined Emergency Ratings for contingency analysis in the operations horizon and in post-contingency simulations of constraints. Such uniquely determined Emergency Ratings must also include separate AAR calculations for each Emergency Rating duration used.

In developing forecasts of ambient air temperature for AARs and Seasonal Line Ratings, the Transmission Provider must develop such forecasts consistent with Good Utility Practice and on a non-discriminatory basis.

Postings to OASIS or another password-protected website: The Transmission Provider must maintain on the password-protected section of its OASIS page or on another password-protected website a database of Transmission Line Ratings and Transmission Line Rating methodologies. The database must include a full record of all Transmission Line Ratings, both as used in real-time operations, and as used for all future periods for which Transmission Service is offered. Any postings of temporary alternate Transmission Line Ratings or exceptions used under the System Reliability section above or the Exceptions section below, respectively, are considered part of the database. The database must include records of which Transmission Line Ratings and Transmission Line Rating methodologies were in effect at which times over at least the previous five years, including records of which temporary alternate Transmission Line Ratings or exceptions were in effect at which times during the previous five years. Each record in the database must indicate which transmission line the record applies to, and the date and time the record was entered into the database. The database must be maintained such that users can view, download, and query data in standard formats, using standard protocols.

Sharing with Transmission Providers: The Transmission Provider must share, upon request by any Transmission Provider and in a timely manner, the following information:

- (1) Transmission Line Ratings for each period for which Transmission Line Ratings are calculated, with updated ratings shared each time

Transmission Line Ratings are calculated, and

- (2) Written Transmission Line Rating methodologies used to calculate the Transmission Line Ratings in (1) above.

Exceptions: Where the Transmission Provider determines, consistent with Good Utility Practice, that the Transmission Line Rating of a transmission line is not affected by ambient air temperature or solar heating, the Transmission Provider may use a Transmission Line Rating for that transmission line that is not an AAR or Seasonal Line Rating. Examples of such a transmission line may include (but are not limited to):- (1) a transmission line for which the technical transfer capability of the limiting conductors and/or limiting transmission equipment is not dependent on ambient air temperature or solar heating; or (2) a transmission line whose transfer capability is limited by a Transmission System limit (such as a system voltage or stability limit) which is not dependent on ambient air temperature or solar heating. The Transmission Provider must document in its database of Transmission Line Ratings and Transmission Line Rating methodologies on OASIS or another password-protected website any exceptions to the requirements contained in this Attachment initiated under this paragraph, including the nature of and basis for each exception, the date(s) and time(s) that the exception was initiated, and (if applicable) the date(s) and time(s) that each exception was withdrawn and the standard rating became effective again. If the technical basis for an exception under this paragraph changes, then the Transmission Provider must update the relevant Transmission Line Rating(s) in a timely manner. The Transmission Provider must reevaluate any exceptions taken under this paragraph at least every five years.