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Public Service Company of Colorado

Transmission Question and Answer In Compliance with 18 C.F.R Part 358.5 (b)(1-6)

Public Service Company of Colorado ("Company") have set up a Question and Answer function to provide responses to customer requests for transmission information via the Public Internet (the Company's OASIS page or web site). The purpose is to provide Transmission Customers contemporaneous access to the requested information pursuant to FERC Order No. 2004 (18 CFR Part 358.5 (b)(1-6)). The following log contains the questions and Company's answers.

Any transmission customer (or potential customer) may submit a question. The Q&A function will identify the Requestor and Question and the date of the request. The Company, at its discretion, reserves the right not to answer specific questions. For example, the Company will not provide answers that would disclose customer-specific information or Critical Energy Infrastructure Information.

Please submit questions via e-mail to the following address: XMCustomerQA@xcelenergy.com

Question	Answer
May 25, 2005; Xcel Energy Wholesale Merchant Function (WMF); Requests complete PSCo obligation load calculation, integrated hourly averages, for all hours, for April 5 2005 and April 8, 2005.	June 16, 2005; A complete calculation of PSCo obligation load is dependent on activities of others, which is not reportable by Transmission Operations.
June 13, 2005; Xcel Energy Wholesale Merchant Function (WMF); Regarding 6/10 OASIS posting for Lamar DC Tie. Would it be possible to keep the DC Tie in-service at its present 105 MW level through the summer and then perform the 6 week maintenance and testing period beginning around September 1?	June 15, 2005; An updated schedule for the Lamar DC Tie outage will be posted on OASIS on June 15, 2005.
July 12, 2005; Xcel Energy Wholesale Merchant Function (WMF); The Lamar DC Tie is now rated for 210 MW from East to West, but only 160 MW from West to East. Why is it derated in this direction, and for how long?	July 13, 2005; The 160MW derate west to east is that a sub system of the facility necessary to support 210MW west to east has a failed component. Transmission is currently working with the vendor on the schedule for repair. As soon as a schedule is known it will be posted on OASIS.
July 14, 2005; Xcel Energy Wholesale Merchant Function (WMF); Questions pertaining to the All-Source studies that were posted on 7/11/2005. Bid W002 1). The 185MW amount of generation re-dispatch or displacement of wind at Manchief does not seem right. There is approximately 525MW of gas	Bid W002: 185 MW is not an absolute maximum, but could increase based on system conditions. For the stressed conditions studied, when the wind project was increased and Manchief decreased, 185 MW was the level at which a contingency limit was reached. For additional reductions at Pawnee, generation would have to be increased west of the proposed project to allow additional increases. For a less stressed model, a higher output capacity could be possible.
generation in the Pawnee area that	If the 230 kV line between Corner Point and Daniels Park was uprated to a

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would almost certainly alleviate any overloads between Pawnee-Daniels Park and Pawnee-Ft. Lupton. Could you verify if the 185MW delivery of wind is the absolute maximum when you redispatch gas to accommodate wind?

Bid W004

- 1). The study results show that when gas generation near Pawnee is reduced, the full 304.5MW of wind could be delivered to the system. The sum of displaced gas generation seems low. Is there actually 203MW of displacement to get the full 304.5MW? (Brush gen from 280 to 95MW and Manchief from 245 to 227MW)
- 2). Just an observation Bid W004 and W009 both require the Pawnee-Ft. Lupton upgrade but the S&LR activities are estimated to be 4 months longer in W004 than W009. Is there a reason for the 4 month adder?

Bid W007

1). Same question as for Bid W002.

higher capacity, the full output of the project could be realized if Manchief was reduced the same amount as the output of the project.

Bid W004

There were some typographical errors in the report. For question 1, there was approximately 300 MW of gas displacement to get full output of the proposed project. For question 2, the S&LR figure should have been identical to W009. The report has been reposted.

Bid W007

See response to W002.

July 15, 2005; Xcel Energy Wholesale Merchant Function (WMF); Question related to study entitled "G025 SA r2.doc" posted July 12 on RMAO: How much of the 264 MW (G025) can be run if the Delivery Infrastructure facilities are not installed prior to the inservice date of the second new unit?

July 19, 2005, Based on extrapolation of study results, approximately 160 MW could be run.

July 15, 2005; Xcel Energy Wholesale Merchant Function (WMF); Question related to study entitled "GI-2003-5 Feasibility.pdf" posted on RMAO: If the delivery infrastructure upgrades (called "Transmission Reinforcement Costs" in the study) identified on page 11 are in place, how much of the 750MW project can be operated without the need for the additional delivery infrastructure upgrades identified on page 14?

July 27, 2005, Based on the modeling used for GI-2003-5, approximately 560 MW of additional generation could be injected at Pawnee without the need for additional infrastructure beyond what was identified in the report for 500 MW. However, the level depends on system conditions and regional generation dispatch. Recent studies with updated models indicate that prior to 2009, if existing generation at Spruce, RMEC, and Pawnee are all at or near maximum levels and Tot 3 is relatively high, the level of incremental injection at Pawnee will be closer to 200 MW before some kind of additional upgrades are required. Those upgrades may or may not include those identified in GI-2003-5. In 2009, the Comanche - Daniels Park 345 kV Transmission Project appears to reduce the transmission loadings south of Pawnee and the amount of injection can increase to at least 550 MW. Additional studies would have to be done to determine the post-2009 level of injection that would drive recommendations for additional transmission.

August 3, 2005; Xcel Energy Wholesale Merchant Function (WMF); This question relates to the study "G029 SA r2" posted on July 11. August 4, 2005, The project can be interconnected at the originally proposed location. The Stand-alone report for the project has been modified and reposted as G029 SA r5.

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The bidder has asked PSCo to confirm that this project must be interconnected at PSCo's proposed interconnection point, or whether it can be interconnected where originally proposed.	August 20, 2005. Transmission and a secret in the second s
August 25, 2005: Xcel Energy Wholesale Merchant Function (WMF); In regards to the study "GI-2003-3 Facilities Study - Final Report" posted March 2005, Can the construction time for the Transmission Network Upgrades for Delivery be accelerated in any way? If so, by how much time?	August 30, 2005; Transmission cannot commit to any accelerated schedule for the construction of the Transmission Network Upgrades for Delivery.
August 25, 2005: Xcel Energy Wholesale Merchant Function (WMF); In regards to the study "G031 SA r1" posted on August 5, how much of the project output can be reliably operated if the project is interconnected to the system assuming the Delivery Upgrades identified on Page 1 cannot be implemented by the proposed in- service date?	August 30, 2005; Assuming that the infrastructure is in place to interconnect the project at 345 kV (Comanche - Daniels Park 345 kV Transmission Project), but none of the additional infrastructure is built, no portion of the project could be considered a firm resource without the additional upgrades identified. Non-firm capacity could be available up to the full amount, depending on marketing activities, dispatch patterns, demand levels, and the status of the regional transmission system.
August 31, 2005: Xcel Energy Wholesale Merchant Function (WMF); Historically, PSCo has posted non-firm ATC on TOT2A from north to south. Recently, however, this ATC has vanished. Please explain.	August 31, 2005; TTC and ATC are evaluated and updated seasonally. Based on the current conditions the posting on OASIS is correct.
September 1, 2005: Xcel Energy Wholesale Merchant Function (WMF); Will you expand upon your explanation detailed in the OASIS message posting #940 regarding the Lamar DC Tie. The message indicates that the tie is unavailable until further studies, due to the Holcomb to Finney tie line. If deemed appropriate, please post on the public Q&A site, any additional available detail on the specific studies (purpose and intent) that are required prior to returning the tie to service, or the expected time-line to complete the study.	September 12, 2005; Xcel Energy Transmission (XET) is working through operational concerns that Sunflower Electric Cooperative has expressed regarding potential SSR risks associated with their Holcomb generation unit while the PSCo/SPS HVDC is operating. XET and Sunflower are currently reviewing new SSR analysis. That review is expected to be completed Tuesday, September 13th. If all goes well with the review, the HVDC may be available for commercial operations by the end of the week. XET will post a notice on OASIS when the HVDC is again available for commercial operations.
September 7, 2005: Xcel Energy Wholesale Merchant Function (WMF); Can you please provide an estimate of the Return to Service Date for the Lamar HVDC Tie? Additionally, can you further explain "resonant interaction".	September 12, 2005; Same response as for the question asked on September 1, 2005.
September 15, 2005: Xcel Energy Wholesale Merchant Function (WMF); (1) What is the ramp capability of the	September 20, 2005; Response: Long version of the question and answer can be found in the Transmission Q&A Additional Materials file named 20050915-WMF-NSP-QA-doc1-Lamar DC Tie.pdf

Lamar DC tie?; (2) Please explain if it is possible to carry operating reserves across the Lamar DC tie; and (3)Please elaborate on the operation and maintenance of the Lamar DC tie as it would compare to operation and maintenance of a rotating machine.	
September 28, 2005; Xcel Energy Wholesale Merchant Function (WMF); With respect to project W002, since the on-line date for this interconnection is June 1, 2007, shouldn't the 2007 Summer load case be utilized for the transmission study? It would seem this would be more appropriate and provide for a more accurate comparison to similar projects such as W007.	October 4, 2005; The stand-alone study for W002 utilized a summer 2007 model, since it assumed a June 2007 in-service date. The study for W007 utilized a summer 2006 model, since it assumed a June 2006 in-service date. The studies demonstrate that infrastructure requirements for delivery may be different, depending on the system load. If W007 used a 2007 model, the results might be similar to W002. At this stage, there are many factors that weigh into project comparison. Ultimately, transmission requirements will be based on the final portfolio chosen by XEM, and may or may not reflect the requirements for individual stand-alone projects.
October 4, 2005; Xcel Energy Wholesale Merchant Function (WMF); What are the physical losses across the Lamar DC Tie?	October 7, 2005; The losses are 740 KW at 21 MW power level, 1303 KW at 105 MW power level, 2652 KW at 210 MW power level.
October 10, 2005; Xcel Energy Wholesale Merchant Function (WMF); Please provide the availability for the DC tie for August 2005.	October 10, 2005; HVDC availability for August 2005 was posted on RMAO OASIS, messages 969 and 990. According to these postings, the tie was unavailable on 8/1 until 24:00, and on 8/31 until further notice starting 20:09. The rest of the month the tie was always available.
October 17, 2005; Xcel Energy Wholesale Merchant Function (WMF); Please provide any known additional details for the Lamar DC Tie outage regarding the expected return date, and cause for the outage.	October 17, 2005; The current status of the Lamar DC tie and the expected time to return to service is posted on the PSCo OASIS home page under Outages below the Documents link. The information concerning the DC tie will be updated as soon as we are made aware of any changes.
November 3, 2005; Tri-State Power Marketing; PSCO Transmission has posted BLUE as a POR/POD in the past. TSGT, PRPA and CRCM all share this common POR/POD. Does PSCO Transmission have a means of accessing BLUE. Will BLUE be a POR/POD in the future?	November 9, 2005; PSCo Transmission Function met with TSGT and WAPA transmission function to discuss the need for a BLUE POR/POD. PSCo has BLUE registered as a valid delivery point in the NERC registry. However, BLUE has never been offered as a POR or POD on the PSCo OASIS. We were unable to come to consensus on the need for BLUE and other associated discussions, thus we have scheduled a follow-up meeting to resolve these issues. We will communicate the results after we have reached a decision. (Anticipate second week of December).
November 8, 2005; Xcel Energy Wholesale Merchant Function (WMF); Could you provide the availability of the DC Tie for September 2005?	November 11, 2005; The archived RMAO Messages have been placed under the Documents section of the PSCo OATI WebOASIS Home page. We are currently working on a method to archive transmission postings since the conversion to WebOASIS.
December 15, 2005; Xcel Energy Wholesale Merchant Function (WMF); Would you provide the historical data for the Lamar DC Tie line for the months of October and November 2005?	December 16, 2005; Information regarding the Lamar DC Tie availability can be found at WebOASIS-Security or WebOASIS-Notices.
January 10, 2005; Xcel Energy Wholesale Merchant Function (WMF); Your message regarding TOT2A S-N TRM posting is ambiguous. Will ATC be posted on 2/1/06, or will the postings be made prior to that	January 11, 2005; The posted ATC for all paths on the PSCo system is always available on the WesTTrans.net OASIS system. PSCo Transmission is currently evaluating the need for TRM on TOT2A S-N. If a change is made on the use of TRM on TOT2A, PSCo Transmission will post notification on OASIS and make that capacity available via the ATC queries available on WesTTrans.net. The evaluation of the need for TRM

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beginning service 2/1/06?	on this path is not complete. As a result of the evaluation, some or all of the TRM may be released on a limited basis as early as 2/1/2006. PSCo Transmission cannot state at this time whether ATC will be posted on 2/1/06 or when any future postings on OASIS would occur. Market participants should continue to monitor OASIS for future postings.	
January 13, 2006; Xcel Energy Wholesale Merchant Function (WMF); Why is day ahead non-firm network ATC no longer available?	January 13, 2006; On 1/6/06, the PSCo Transmission Function determined an error occurred in a co-efficient in the transition to the wesTTrans.net system in October 2005. The co-efficient affects posted ATC on the PSCo system.	
	A calculation correction was implemented on Friday 1/06/2006 without notice to transmission service users. The PSCo transmission system has operated reliably while wesTTrans.net used the incorrect co-efficient. The coefficient change will now be made effective on to Wednesday 1/11/2006 to give market participants advance notice for the calculation change. The correction was applied at 0700 MST on 1/11/2006.	
January 13, 2006; Xcel Energy Wholesale Merchant Function (WMF); Could you please post the affects to PSCO regarding the upcoming TOT2A & TOT5 outages that WACM has posted for 1/18, 1/23-1/26, 1/28 & 1/31, before we pre-schedule for those days?	January, 16, 2006; Yes, when outages impacting the PSCo transmission system are finalized, PSCo Transmission Operations will update the outage and TTC information on the PSCo WebOASIS site. The outage information can be found on the Home page under Outages - PSCo Outages. The up-to-date ATC Offerings can be found by using the top menu bar and selecting the blue Offerings button.	
January 17, 2006; Xcel Energy Wholesale Merchant Function (WMF); Would PSCo Transmission please consider and make known their decision, whether or not they would change their practice regarding the time when non-firm ATC is posted to the OASIS. It is our belief that all firm transmission should be scheduled by 10 a.m. in accordance with current Tariff provisions. Following that deadline and an assessment period, additional transfer capability could be made available to all market participants, allowing them to schedule day-ahead transactions prior to the pre- scheduling deadline using purchased non-firm transmission.	January 17, 2006; We have considered your request and at this time we have no plans to change the current pre-scheduling process.	
January 17, 2006; Xcel Energy Wholesale Merchant Function (WMF); Since TRM studies have been completed and sufficient ATC determined, why are ATCs still posted as 0 and short-term requests for the balance of January 2006 remain unacted on?	January 17, 2006; We have acted on all short term requests. The ATC problem was corrected with the help our service provider (Open Access Technology, Inc). Sorry for the inconvenience.	
January 17, 2006; Xcel Energy Wholesale Merchant Function (WMF); Why have requests been "invalidated",	January 17, 2006; Please see the comments section on the invalid OASIS requests. The weekly requests per OATT must start on Monday, the weekly requests submitted by XEM (70641731, 70641735, 70643746 and	

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when following your modified rules for TOT2A availabilty?	70641727) all began on Wednesday and thus were invalid.	
January 17, 2006; Xcel Energy Wholesale Merchant Function (WMF); (1) Since posted monthly ATC is variable on specific paths, why isn't profiling enabled so customers can make requests consistent with offerings? (2) Will roll-over rights carry over to requests that heve been broken into numerous parts due to profiling not being enabled? (3) Why aren't firm requests Counteroffered, rather than being categorically Refused?		
January 18, 2006; Xcel Energy Wholesale Merchant Function (WMF); How does PSCo Transmission allow for pre-scheduled next-day purchase transactions (compliant with WECC pre-schedule deadlines) for native load to be scheduled and tagged from non- designated resources utilizing non-firm network transmission?	January 20, 2006; Public Service Company of Colorado will implement a new business practice effective 1/26/2006. This business practice will clarify the treatment of non-designated network transmission service requests. Please reference the business practice - effective 1/26/2006 on the OATI PSCo OASIS home page.	
March 14, 2006; Tri-State Generation and Transmission Association, Inc.; Recommendation to modify proposed item #3, last sentence from "Firm schedules submitted after 1000 hours will be accommodated as practicable," to "Firm schedules submitted after 1000 hours will be accommodated per Pre-Schedule normal business hours specified in item 2, above."	March 17, 2006; Thank you for the recommendation. While we understand your concern, we must implement the terms of the OATT. Thus, we will accommodate all schedules per the new business practice and will only deny schedules when they cannot be accommodated. We do not anticipate any problems in this accommodation practice.	
March 15, 2006; Xcel Energy Wholesale Merchant Function (WMF); Several questions, see additional materials; file name is: 20060315- WMF-PSC-QA-doc1-business practices.pdf	March 22, 2006; Several questions and answers, see additional materials; file name is: 20060315-WMF-PSC-QA-doc1-business practices.pdf	
April 6, 2006; Xcel Energy Wholesale Merchant Function (WMF); Could you please post the effects of the TOT3 outage (Nyuma transformers from 4/10-4/28) on PSCOs TOT3 allotment before we trade for that time period (6 a.m. on 4/7)?	April 6, 2006; TOT 3 has a dynamic limit. The PSCo share of the NYUM transformer outage is a 1 MW reduction. The Control Center will post a 1 MW reduction to the dynamic limit which is posted on the OASIS.	
April 10, 2006; Xcel Energy Wholesale Merchant Function (WMF); Could you please post the effects, of CRCMs posted TOT5 outage for 4/13, to PSCOs TOT5 rights before we trade for that day (6 a.m. 4/11)?	April 10, 2006; All transmission outages that have an impact on the PSCo transmission system are and will be posted in a timely manner on the Security Summary which can be reached using the Security button on the PSCo OASIS Home page for transmission outages that impact the PSCo system.	

April 24, 2006; Xcel Energy Wholesale Merchant Function (WMF); SPSM owns 210 MW of Firm (F-7) Network Transmission on the PSCo system (OASIS #89390) from PSCo to LAMR345. It was understood by Marketing that SPS is a network customer of PSCo (as is PSCo a network customer on the SPS system). SPSM attempted to procure nondesignated transmission service from 4-Corners today to the Lamar Tie, and was refused. Please explain why service was refused, and conclude whether SPS has non-designated network service rights on the PSCo system.

March 28, 2007; Service Schedule E of the Joint Operating Agreement (JOA) between the Xcel Energy Operating Companies (including PSCo and SPS) provides for the exchange of 210 MW of capacity and associated energy on a mutual basis between PSCo and SPS across the Lamar Tie Line. Service Schedule E also provides that SPS has the right to use PSCo's capacity and associated energy to serve SPS retail customers and wholesale requirements customers. (PSCo has a reciprocal right to use SPS resources.) Service Schedule E does not provide the right for SPS to deliver a resource other than a PSCo resource across the Tie Line.

SPSM has executed a NITS agreement with PSCo effective March 1, 2007, designating 210 MW of network load at the Lamar HVDC tie. This agreement gives SPSM the right to transmit power purchased from non-designated network resources, subject to the administrative and scheduling requirements of the Xcel Energy OATT and PSCo's business practices (posted on OASIS) for NITS services from non-DNRs and transactions across the Tie Line.

May 3, 2006; Xcel Energy Wholesale Merchant Function (WMF); (1) What is the status of PSCo's evaluation of allowing daily requests using different time zones? (2) What is the status of PSCo's evaluation of allowing flexibility in weekly requests?

May 4, 2006; (1) PSCo has no plans to modify the definition of DAILY as defined in the Business Practices posted on the PSCo OASIS home page. (2) PSCo has no plans to deviate from offering FIXED (non-sliding, non-extended) transmission products. The definition of our products can be found in the OASIS posted Business Practices.

May 3, 2006; Xcel Energy Wholesale Merchant Function (WMF); WMF needs to be able to use TOT 7 PORs other than Ault, which includes Weld and Longs Peak. At the customer meeting PSCo hosted on February 27, PSCo advised us to establish these two points on the TSIN registry. We have been advised that, as a customer, we can establish sources and sinks but not PORs and PODs.

May 4, 2006; PSCo does define TOT7N and TOT7S as POR/POD combinations on OASIS, but PSCo does not offer TOT 7N to TOT 7S or TOT7 S to TOT 7N as a path. Thus, there is no ATC associated with those POR / POD combinations. The TOT 7 POR/POD designation is used internally by PSCo Transmission and the WesTTrans OASIS system to manage the TOT 7 ATC and is not offered as a transmission path. Any deliveries south of TOT 7 and north of Fuller are considered as the POR / POD called PSCO.

TOT7N and TOT7S are two POR/PODs represented on the PSCo OASIS. However, there is no TTC/ATC associated with them. We would like to establish either a Weld and Longs Peak as POR/PODs and establishing TTC/ATC between these points and others on the PSCo system, or allowing for use of the TOT7N and TOT7S POR/PODs by establishing TTC/ATC between these points and others on the PSCo system that would achieve the same effect.

Ault, Weld and Longs Peak are all points north of TOT 7. Deliveries to and from these three points would have the exact same ATC impact on TOT 7. Because there is no difference in these points, PSCo will not add them as valid scheduling points.

May 11, 2006; Xcel Energy Wholesale Merchant Function (WMF); In response to the latest rejection for June 1, 2006; PSCo Transmission posts ATC in accordance with OASIS S&CP ver 1.4. ATC is posted at least 13 months in advance for monthly, 6 weeks in advance for weekly, 7 days for daily and 3 days for hourly in

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allowing daily or weekly requests using different time zones, we would like PSCo to reconsider our request. Since major hub business in the WECC is conducted in PPT, will PSCo please allow its customers to purchase day ahead products that end at 1:00 MPT in order to accomodate WECC standard products?

accordance with the OASIS requirements. Use of transmission procured in OASIS can be scheduled for any advance period. Purchased transmission reservations for daily service are in the prevailing time zone of the transmission provider. Hourly transmission service for paths with ATC are available for any hour(s) in accordance with the FERC S&CP ver 1.4 and can be pre-scheduled into any time zone.

May 24, 2006; Xcel Energy Wholesale Merchant Function (WMF); WACM is reporting that the RockPort-Nunn Tap 115kv line outage scheduled for 5/30-6/1 has been cancelled. Could you please update PSCO outages to reflect this information?

May 25, 2006; This has outage has not been cancelled.

May 31, 2006; Xcel Energy Wholesale Merchant Function (WMF); As a clarification, we are requesting that PSCo post ATC through 0100 MPT so that transmission can be purchased and scheduled in accordance with the typical WECC products.

June 1, 2006; Thanks for the clarification. PSCo Transmission posts ATC in accordance with OASIS S&CP ver 1.4. ATC is posted at least 13 months in advance for monthly, 6 weeks in advance for weekly, 7 days for daily and 3 days for hourly in accordance with the OASIS requirements. Use of transmission procured in OASIS can be scheduled for any advance period. Those purchased transmission reservations would be in the prevailing time zone of the transmission provider.

Unscheduled FIRM capacity and TRM is released and made available on OASIS as non-firm at 1000 hours each pre-scheduling day in accordance with the WECC pre-scheduling calendar. For a typical day ahead scheduling, unscheduled firm capacity for the pre-scheduled day is released through hour ending 2400 MPT (day ahead). This daily release policy allows the firm customer to schedule his/her rights prior to releasing the unscheduled capacity as non-firm. All of our bordering neighbors, except Tri-State, offer daily products defined as midnight to midnight mountain prevailing. Nothing in the pre-scheduling procedures prevent a market participant from purchasing transmission beyond the pre-scheduling timeframe and using that transmission any in any time zone.

If this answer is not responsive or does not address the concern, please provide examples of the problem so that we can be responsive to the concern.

July 6, 2006; Xcel Energy Transmission; How will an on time corrected tags be handled if there is a system problem and the tag becomes late because the proper validations did not occur? July 6, 2006; PSCo will accept corrected late tags that were denied due to deficiencies of Transmission Provider tools, terminals, or actions. PSCo will mitigate the occurrence of inappropriate late tag denial by reviewing the Interchange Transaction Screen for failed tags starting at 25 minutes before the hour to at least 15 minutes before the hour of implementation to make sure that any accurately corrected tags are appropriately validated. However, any tag submitted after 20 minutes before the start of the hour of implementation will still be considered late and only be approved with the exceptions listed in NERC Standard INT-004 R1 or in the WECC Business Practice # 17. Corrected tags submitted after 20 minutes before the start of the hour of implementation will be late and thus denied.

October 31, 2006; Xcel Energy Wholesale Merchant Function (WMF); Last week, there were a couple of November 1, 2006; The issue was researched and timelier postings could have been made in both cases. PSCo Transmission continues to work diligently on being as accurate and timely as possible concerning outage

outages related to either maintenance on other systems or tests that were going on that impacted transmission system availability. These postings were made after the trading was completed for the day of the outage. Would it be possible to have these items posted further in advance so transactions could be better matched to actual transmission constraints that are expected? As part of this, it would be preferable to post what is expected to happen with adjustments made closer to the actual outages or tests. Trading for the WECC Pre-schedule Day(s) in the PSCo area (and the WECC) typically begins around 7:00 a.m. MT and is completed by 8:00 a.m. MT. Below are a couple of examples that were recorded in order to help PSCo Transmission understand our concerns.

postings on OASIS. Transmission recognizes that transmission system availability has a direct impact on the commercial usability of the PSCo transmission system and wish to support these transactions for all of our customers to the best of our ability. Transmission will work to provide timely postings.

PSCO posted outage #4025 Cabi-Dill for TOT5 reducing our import from 480 to 160 for the period 10/28 HE9-11 (reason-blackstart test b unit). This was posted at 7:50 on 10/26 after trading for 10/28 had been completed.

PSCo Merchant saw a TOT3 outage (called by WACM) for HE5 on 10/27 (reducing PSCO from 58 to 31MW) on the WACM OASIS. The identical outage was posted for 10/25 HE5 (which PSCO posted); however PSCO had not posted the outage for 10/27 as of mid-morning on 10/26.

December 19, 2006; The request below is complete. Please note that current OASIS reservations are consuming the ATC for the segment LAMR230-LAMR345.

December 18, 2006: Xcel Energy Wholesale Merchant Function (WMF); On the PSCo Oasis, could you please add the POR/POD path combination of BLUE-LAMR345 (Blue River to Lamar DC Tie) under the "Offerings" and "System Data" databases for all customers to view? Thank You!

February 13, 2007; Citigroup Commodity Derivatives; What schedules were included in the offer price listed on west trans? February 13, 2007; The approved transmission tariff prices can be found at the following link http://www.xcelenergy.com/docs/corpcomm/OATTPSCoTransmAndAncillRates.pdf

This link provides all the information concerning the rates for schedules 1 - 8.

February 28, 2007: Xcel Energy Wholesale Merchant Function (WMF); On Friday, February 16, 2007, Aquila's March 5, 2007;

(1) PSCo Wholesale Merchant Function ("WMF") as a party to the transaction was notified through the ETAG system at 21:16 MD on

transmission function was contacted by the PSCo Transmission Function ("PSCo-T") to inform them of a line outage that would affect delivery of energy to the Midway substation on Saturday the 17th (Note: We are assuming the transmission service that was trying to be utilized for this transaction was from *PSCo to MIDWAY*, owned by PSCo Wholesale Merchant Function). As a result, Aquila was informed that the schedule would be refused. We have two questions related to this event:

- 1). Since the PSCo Wholesale Merchant Function ("WMF") is the customer for this transaction, why was the PSCO WMF not informed of the refused transaction? If the PSCo WMF was informed, please identify who was contacted.
- 2). We believe the use of the Midway Point of Delivery ("POD") was recommended by PSCo-T a while back when PSCo-T transitioned to a new OASIS platform (in the past we believe there was a "WPECO" POD on OASIS). Thus, if a line outage affects the PSCo to Midway Interface/Path, our ongoing concerns are that once again, the entire schedule may get curtailed when the Midway POD is affected, even though there are other PSCo interconnections (Boone, Reader, Canyon City, etc...) over which energy can flow to Aquila. So, can PSCO-T implement a change on the OASIS platform to acknowledge this concern and prevent future occurrences?

2/16/2007. Because this was a curtailment no approval action from WMF was required. (2) PSCo WMF is using a Firm Point-to-Point reservation for this delivery thus, if an alternate delivery is required WMF would need to identify and redirect the original reservation upon the curtailment of the original path.

The transaction that was curtailed was to begin flowing at 8 am on 2/17/2007. The transaction was curtailed at 21:16 on 2/16/2007. The issue that caused the need to curtail the reservation was in error. Due to the error the operator curtailed the transaction at 21:16. He realized the error and reloaded the transaction at 21:45 (29 minutes after the curtailment). We have provided training regarding the error that caused the need to curtail this transaction and also on the firm nature of the Pueblo load. We apologize for any inconvenience that this has caused.

March 27, 2007; RMEC; We would like an understanding of the transmission outages scheduled for the transmission lines effecting RMEC. We have been told that both T-lines will be taken out of service simultaneously, leaving our facility in an island mode on May 4-5 and May 29-June 2. Please explain why both circuits will be removed from service at the same time. This places the facility in a difficult and costly position to maintain our equipment in a safe shutdown mode for extended periods.

March 28, 2007; Both lines of this double circuit must be taken out of service to safely perform the necessary work on the transmission lines in order to interconnect a new generation facility.

Work cannot be performed safely on one circuit while the other remains hot since both circuits are on the same tower. Additional details about the work for the new facility can be found on the OASIS site under the Transmission Studies 2006-1i Facilities_final report.pdf.

The May 4-5 outage is a firm date at this time. The May 29 - June 2 is a planned outage. However, the outages are subject to change due to construction sequencing.

April 2, 2007: Xcel Energy Wholesale Merchant Function (WMF); Please add the POR/POD path combination of PAWNEE to PSCO on the OATI OASIS. At this time there is no POR/POD combination that enables the entry of such as request.

April 18, 2007; The point Pawnee is internal to the PSCo native load area and as such requires no POR or Etag to serve PSCo native load.

April 18, 2007: Xcel Energy Wholesale Merchant Function (WMF); Please update outage information regarding the Lamar DC Tie, particularly return time. We are also requesting that actual outage times (beginning time of the outage) of the Lamar DC Tie are posted to the Answer section of the Q&A site.I Energy Wholesale Merchant Function (WMF);

April 18, 2007: The Lamar DC Tie outage information on the PSCo OASIS is updated and correct. The current outage began on 2/28/2007 at 1400 MST and is scheduled to return on 5/4/2007 at 1:00 MDT . The reason for the outage is to perform equipment maintenance and repair. If and when updated information becomes available the Outage posting on OASIS will be updated.

April 19, 2007: Xcel Energy Wholesale Merchant Function (WMF); Please enable the entry of a Blue River to PSCo transmission service request on the PSCo OASIS? Currently there is no POR/POD path combination that allows such a request.

April 19, 2007: The OASIS path Blue River to PSCo will be added to the PSCo WestTrans offerings. The point BLUE is already registered in TSIN as a POR and POD.

July 11, 2007: Xcel Energy Wholesale Merchant Function (WMF); In the Transmission Study Group meeting on June 14, the presentation materials state that a "final list of study plans" will be decided by July 1. Have those study plans been finalized? If so can you post them on the SB100 site?

July 11, 2007: Transmission Plans for Senate Bill 100 are being finalized. An update should be available at the next stakeholders meeting. The next stakeholders meeting is tentatively scheduled for July 26th.

July 31, 2007: Xcel Energy Wholesale Merchant Function (WMF); The Greenlight/BP and FPL/Invenergy wind farms are going to be coming on line over the course of the next several months. Associated with these new projects are the interconnection of the developers' 230kV lines into the PSCo system. Could PSCo provide, on OASIS, more detail on the expected dates/times of such interconnection work, as well as the effect on the ability to use the PSCo generation and transmission system during those timeframes? For example, on Notice number 41660, it is unclear to us what planned work is being performed that is causing Manchief/Brush to be

August 15, 2007; Greenlight/BP Cedar Creek (Keenesburg) - Nearing backfeed date. Station Service is being installed right now which was the delay to the project. Taking outage on north RMEC - GV circuit this Friday - Tuesday (Aug 17 - Aug 21) to do some final trip checking, relay setting, etc. Backfeed is scheduled for Wed 8-22, but dependent on Station Service and Outage consideration.

FPL/Invenergy: Peetz Logan/Pawnee 400 MW Wind Project (FP&L) - final construction, equipment testing, trip checking and commissioning completed for temporary line termination and interconnection facilities at Pawnee. Back feed for test generation available Wednesday (8/8/07) afternoon. Turbine testing and commissioning to start 8/9/07. 200 MW of wind generation available by 8/31/07, the remaining 200 MW by 10/1/07. Permanent line termination and interconnection facilities construction to be completed in the fall when system and weather conditions allow for an outage on the Pawnee-Story line.

unavailable. Is this for installation work associated with one of the above wind farms? That is the type of information that would be useful to us in our planning.	
September 14, 2007; Benjamin, Bain & Howard, LLC; On what date was the interconnection line between the Pawnee substation and the Peetz Logan substation completed?	September 19, 2007; Public Service Company of Colorado did not build, and does not own, the "interconnection line between the Pawnee substation and the Peetz Logan substation". As such, we cannot make a statement as to when the line was completed. We can, however, state that the temporary interconnection of that line to our transmission system for back feed was completed and placed in-service on 8/8/07. The permanent interconnection facilities are yet to be constructed.
October 19, 2007: Xcel Energy Wholesale Merchant Function (WMF); We are assuming that if a new fossil- fueled generating station were constructed in the Denver metro area, perhaps at an existing PSCo generation site, that that site would offer superior voltage support to the PSCo native retail load than a similar plant built remote from Denver, such as in the Pawnee region. Is this true? If you could supply reasons why this would be true or false that would be very helpful.	November 20, 2007; This is a very complex question. Although a plant connected in Denver may provide voltage support, an interconnection study should be performed to determine the impact. A generation interconnection request for new generation would provide an evaluation of the cost of the interconnection, voltage the interconnection would need, and any transmission upgrades needed as well as voltage support issues.
September 2, 2008: Xcel Energy Wholesale Merchant Function (WMF); Would Transmission Operations please consider setting up an open meeting to discuss the planned outage of the Lamar Tie as posted on the OASIS?	September 4, 2008; Due to material delays, the scheduled work and associated outage for the Lamar HVDC Tie has been postponed by several weeks. PSCo Transmission has issued updated HVDC outage information on OASIS. PSCo Transmission is working with vendors to further update the outage dates as more information becomes available. After reviewing the OASIS posting, the requesting customer should advise PSCo Transmission if the customer still wants a meeting to discuss the outage schedule.
September 8, 2008: Xcel Energy Wholesale Merchant Function (WMF) would still appreciate the opportunity to discuss the outage of the Lamar Tie, rescheduled for 10-6-2008 through 1-23-2009.	September 12, 2008: Xcel Energy Transmission will be scheduling an open meeting in regards to this request. The meeting notice will be posted.
October 30, 2008; Xcel Energy Wholesale Merchant Function (WMF); Could you tell me who is the BA for Midway?	November 5, 2008; Public Service Company of Colorado is the Balancing Authority. The Interchange point is between PSCO and the WACM Balancing Authority (A region of Western Area Power Administration)
February 5, 2009; Xcel Energy Wholesale Merchant Function (WMF); Does the logic within the PSCo OASIS result in ATC being posted until a confirmed reservation is schedule on a confirmed tag? Thank you for your	February 27, 2009; See Additional Materials, Document named: 20090205-WMF-PSCo-QA-doc1-ATC_Information.pdf March 5, 2009: A new updated version, dated march 1, 2009 has been added.

consideration and response to this question. 20090205-WMF-PSCo-QA-doc1-ATC_Information-v2.pdf As an example: If day-ahead there is a total of 100 MW of ATC posted for the next day (24 hours) from Midway to PSCo and a customer pre-confirms a request for 100 MW of transmission service on this path and the reservation is approved by the transmission provider, will 100 MW of ATC remain posted and available on the OASIS unless or until the reservation is scheduled in a confirmed tag? December 15, 2009; IREA; Where are December 21, 2009: On the PSCo OASIS site. Select "PSCO" from the "Select Provider" drop down menu on the left. the PSCM Designated Network Document folders will appear on the left column. Open the "FERC 890" Resources posted? POSTINGS" folder The 12th file in the folder is labeled "Designated Network Resources" Click on this and it will open the spreadsheet that has the DNR's. March 24, 2010: Colorado Springs April 19, 2010; (1) Section 23 of the Xcel Energy Open Access Transmission Tariff Utilities; The following are questions on explains the Sale or Assignment of Transmission Service. A Transmission how we might resell transmission: 1. What is the process of posting Customer may sell, assign, or transfer all or a portion of its rights under its transmission that we have title to? Service Agreement, but only to another Eligible Customer (the Assignee). 2. I heard that there is a "transfer fee." The Assignee must execute a service agreement with the Transmission How much is that or how is that Provider (ATTACHMENT A-3 Form of Service Agreement for the Resale, determined? Reassignment or Transfer of Point-To-Point Transmission Service) 3. If we sell PSCO transmission that governing reassignments of transmission service prior to the date on which we already have title to, is the same the reassigned service commences. The Transmission Provider shall OASIS reservation number used? charge the Reseller, as appropriate, at the rate stated in the Reseller's Service Agreement with the Transmission Provider or the associated OASIS schedule and credit the Reseller with the price reflected in the Assignee's Service Agreement with the Transmission Provider or the associated OASIS schedule; provided that, such credit shall be reversed in the event of non-payment by the Assignee. The reseller will follow the PSCo document posted on the PSCo OASIS website under the "FERC 890 Postings" tab on the left side of the page that is named "Procedure for Sale or Assignment of Transmission Service – 11/24/09" that explains this process. (2) According to the Xcel Energy Open Access Transmission Tariff there is no transfer fee. PSCo will charge the reseller for the transmission service and then credit the reseller for the amount that the assignee pays. The Assignee may have extra fees, depending on the section 8 of the service agreement. (3) A new OASIS Reservation number is created during this process. See Additional Materials, Document named: 20100324-CSU-PSC-QA-Resale OATT.pdf April 7, 2009; Xcel Energy Wholesale May 18, 2010; Recent studies have identified actual flow limits that could Merchant Function (WMF); What is the arise under a specific scenario: light system loads, very high generation

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long-term transmission transfer capability out of Comanche (and/or Midway) to PSCo system after the Posting Reference #74592, establishing a limit of 1,350 MW, terminates on 5/30/2010? June 13, 2011; Xcel Energy Wholesale	levels in the south system (Pueblo area) and generation reduced north of the Denver area. The flow limits under this load/gen. dispatch situation are; from Comanche to PSCo: 899 MVA, and from Midway to PSCo: 449 MVA. These limits are based on N-1 outage cases using the current 2010 WECC Summer Light Base Case. Flow based limitations were not found under 2010 Summer Heavy Load modeled conditions for this part of the transmission network. July 15, 2011: The Lamar DC tie was scheduled to be unavailable was
Merchant Function (WMF): Several questions with regard to these OASIS #21999 and #22000: • Given the expected 100+ degree temperatures in Texas, would it be possible to cancel this DC tie outage to assist system reliability? • If this outage cannot be cancelled, are we confident the outage will end on time? • What are the chances this outage will be extended?	from 20110611 18:00 thru 20110613 23:00. The actual time that the tie was unavailable was the same.
May 29, 2013: Individual; Have the OATT tariffs, their trend or projections for them beyond 2013 been announced publicly?	August 7, 2013; All the OATT tariffs are up to date on the website.
December 5, 2014; McCarter and English; Cooperative questions on Public Service of Colorado Transmission Loss Study. Questions are in the file (20141204-PSC-Questions Transmission Loss Filing.pdf) in the QA Materials folder.	December 5, 2014; The responses to the questions are in the QA Materials folder in the following four files: 12-15-14Responses.pdf 12-17-14.pdf ER15-266_ Attachment_COOP1-2 s_A1.pdf Losses Qs and As - 12-16-2014.pdf.
January 20, 2015; Xcel Energy Wholesale Merchant Function (WMF): Have noticed that CRCM is posting reductions to TOT-2A that run through 2/27/15. PSCo posts a reduction to zero until 1/22/15. Please verify and post PSCo's rights between 1/22 and 2/27. Also, can you post anything beyond 2/27?	February 3, 2015; PSCo Operations posts on its OASIS site the PSCo shares of the Western (WAPA) managed paths (TOTs) from informational communications with WAPA. PSCo's current OASIS posting for TOT2A reflects those communications, are correct and complete, and are subject to change.
September 3, 2019; Guzman Energy submits the following Transmission Service Request. Please enable the entry of the following POR/POD path combinations on the PSCo OASIS, for which there currently are no combinations that allow such requests: 1. Missle Site to Craig 2. Missle Site to Ault 3. Missle Site to Comanche 4. Missle Site to Midway	September 13, 2019; Questions regarding path creations on OASIS can be addressed to contacts listed in the OASIS Contact Information document found in the General Information folder on PSCO's OASIS website. Transmission Operations can build the paths requested by Guzman Energy in OASIS. However, the Guzman Energy can select 2 paths to get from the requested POR/PODs by going from Missile to PSCo, and then from PSCo to the other end (Craig, Ault, Comanche and or Midway)."
February 24, 2020: Xcel Energy Manager, Transmission Access	February 26, 2020: The TTC report prepared pursuant to MOD-029-2a R2.8 was provided to the requesting customer.

Date Posted : 1/16/2024			
request: Commercial Operations requests the generation dispatch levels that are used for calculation of each of the MOD-029 TTC Study Results paths that have been posted on OASIS. We prefer to receive these as excel spreadsheets if possible. April 30, 2020: I am a Settlement Analyst for Tenaska and I wanted to verify what time zone PSCO operates in? I believe it is in Mountain, but wanted to confirm.	The file provided was: PSC-EVD-MOD-029_Study Results v8.1-Final.pdf Any other customers that would like this information should submit a request to xMCustomerQA@xcelenergy.com and the information can be provided once an NDA is in place. May 4, 2020: PSCo operates in Mountain Prevailing Time.		
December 8, 2020: Please add webRegistry adjacency for WACM(BA) SOURCE POINT = CRAIG_SRP PSE=SRPMST to PSCO POR = CRG. We do understand it may take up to 72 Hours for webRegistry to update the adjacency into production.	December 9, 2020: The PSCo OATi administrator will make the requested update. Please contact the PSCo OATi administrator directly if you have further questions. Phone: 303-273-4782 E-Mail: PSCoTariff@xcelenergy.com		
May 24, 2021: I am searching your OASIS for the current posting of rates, ancillary charges, and losses. After having found some admittedly interesting stuff, I am at a loss for the applicable point-to-point information. Is there a direction that you would be kind enough to point me, please?	May 24, 2021: PSCo posts its rates on the "production node" of websmartOASIS Dashboard ▼ Home ▼ Transactions ▼ ATC/AFC ▼ Reports ▼ Notices ▼ Base Disposed Transmission Offering Summary Transmission Offering Portfolio Hourly Transmission Offering Portfolio Daily Transmission Offering Portfolio Daily Transmission Offering Summary Transmission Offering Portfolio Monthly Transmission Service Filing Memo 1 Ancillary Offering Summary Additionally, losses and ancillary service charges are posted on the left side of OASIS under General Information in the file "PSCo OATT — Change to Losses Rates" document and "2021 Estimated Rates" (file: Sec. 2a (i) PSCo Transmission Formula 2021 Estimate_v3_Sent.xlsx) folder respectively.		
July 5, 2021: For the following facilities does PSCo/Xcel have any ownership rights and would PSCo accept an Interconnection application at any of the following transmission facilities:	July 6, 2021: This request was forwarded to the PSCo Transmission Business Relations representative for a direct response. Future inquiries of a similar nature can be sent directly to the associated operating company Transmission Business Relations representative, as indicated on the Xcel Energy website Interconnections webpage:		
 Hesperus – Durango 115kV Hesperus – San Juan 345kV Hesperus – Montrose 345kV Hesperus – Montrose 345kV Hesperus 345kV Substation Hesperus 115kV Substation Durango 115kV Substation 	Interconnections Transmission Xcel Energy If you have any questions or inquiries related to Xcel Energy Transmission Interconnection information, please direct them to the following contacts: NSP (Minneapolis) 612-330-7516 or Greg Gorski PSCo (Denver) 303-273-4726 or Jennifer Bass SPS (Amarillo) 806-378-2218 or Annette Gallegos		

VERSION 92 Date Posted: 1/16/2024 The PSCOInterconnection@xcelenergy.com mail address is the preferred San Juan 345kV Substation 7. 8. Montrose 345kV Substation method of receiving inquiries regarding interconnection information. September 10, 2021: September 10, 2021 Hello, I'm trying to get a sense of the The 2021 file transmission and ancillary services "Sec. 2a (i) PSCo Transmission Formula 2021 Estimate v3 Sent.xlsx" rates on PSCos system. Looking at the located on the PSCo OASIS website under "General Information">"2021 OATT posted on OASIS, I see Estimated Rates" contains rate information. references to Attachments which include formulas/spreadsheets with no Note that Schedule 9 is a rate that is computed per the formula listed in values. Is there a better source for this Schedule 9 in the OATT, where the Energy Rate is dependent upon the information you can point me toward. instance of imbalance. In particular, I was looking for the LTF PTP rate. Sched. 9. Sched. 2 rates and ☐ ☐ General Information any other ancillary services rates that would be applicable to a wind or solar Corporate Website generator. 2020 PSCo Schedule 19 - Gen Tie Formula Rate Ac PSCo OATT – Unreserved Use, Customer Notice Process to Modify Rules, Standards and Practices r CASIS Status Definitions - 1/26/06 Path POR-POD Tag Validation Change - 4/10/07 Transmission Customer Q&A - 10/21/19 🎇 Transmission Credit Policy - 5/19/08 FERC Standards of Conduct Postings (public) - 10/ FERC Standards of Conduct Postings (secure) - 01 PSCo Planning Authority Responsibilities Dated 10-CASIS Contact Information - 10/22/2020 Transmission Studies - 2/27/2013 PSCo OATT Change to Loss Rates Notice 1/1/2016 <u>→</u> □ 2015 True-Up Rates <u>→</u> □ 2016 True_up Rates 1 2017 True-Up Rates <u>→</u> □ 2018 Estimated Rates <u>→</u> □ 2019 Estimated Rates <u>→</u> □ 2019 True-Up Rates 2021 Estimated Rates

September 29, 2021:

Transmission Service Reservation 83949532 includes the following Seller

September 30, 2021:

The terms of service are contained in the entirety of the Power and Transmission Services Agreement.

<u>→</u> □ 3/13/09 PSCo Transmission Info Release

Joint Dispatch Agreement

Date Posted: 1/16/2024

Comment: "The Power and Transmission Services Agreement of 4/15/92 identify terms of service between PAC and PSCo for this TSR." Which Section of the PTSA identifies the terms of service for the TSR?

September 30, 2021:

Maybe I can be more specific. Does the reservation reflect transmission rights described in Section 6 or Section 8 of the PTSA?

September 30, 2021:

Please refer to Section 6 for firm transfer rights (transmission rights).

October 1, 2021:

A few more questions regarding the PTSA and TSR 83949532:

- 1. With the PTSA having been amended and approved to take effect 1/1/21, PAC's firm transfer rights were reduced to 48.25 MW during Light Lod Hours and 31.5 MW during Heavy Load Hours. Why hasn't there been a corresponding change with regard to TSR 83949532?
- 2. How is the 16.75 MW during HLH (or 16.5 MW under the original PTSA) offered to the market, given that TSR 83949532 is 50 MW (or 48.5 MW) reserved as Firm Yearly, presumably decrementing ATC for all hours?
- 3. Why was the language from Section 6.1(b) in italics below from added in the amended PTSA: "PacifiCorp shall have a firm right to transfer up to 31.5 MW in Heavy Load Hours and 48.25 MW in Light Load Hours, from the Craig/Hayden Switchyards to Four Corners, by way of only the TOT 2A path."
- 4. Can you explain the change regarding the termination date in Section 2.1 of the amended PTSA? The prior language tied termination to the retirements of Craig Units 1 and 2 and Hayden Units 1 and 2, or transfer of PAC's interests in those units to TSGT or PSCO. Is the effect of the change just to cause the transmission rights to "reduce to zero" in the event PAC sells its interests in the units to some party other than TSGT or PSCO? Or is there something more?

October 4, 2021:

Reponses to the corresponding questions:

- 1. PSCo does not allow profiled service for Daily and longer TSRs. With respect to the 50 MW TSR 83949532, PSCo is evaluating steps to Recall 1 MW to closer reflect the highest MW of the service.
- 2.The unused MW are offered into the market day ahead as Non-Firm. Refer to the PSCO business practice on the OASIS site:

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OASIS General Business Practices Effective 05-03-2021 (oati.com)

- 3. The language reflects the outcome of settlement discussions amongst the parties to the contract.
- 4. The language reflects the outcome of settlement discussions amongst the parties to the contract. The transmission rights would reduce to zero in the event Pacificorp Resources are sold to any party.

October 5, 2021:

Given (1) TSR 83949532 reserves 50 MW and (2) PAC's rights per the amended PTSA are limited to 31.5 MW

October 6, 2021:

Yes, the 18.5 MW is treated as specified in the PSCo Business Practice, item 3 under Scheduling and Tagging:

3. Release of Unscheduled Firm Capacity - Unscheduled Firm capacity

Date Posted: 1/16/2024

during Heavy Load Hours (HLH), is the 18.5 MW during HLH treated as unscheduled firm capacity to be posted back daily at 0800 MPT as Non-Firm ATC?

and Transmission Reliability Margin (TRM) will be posted back as Non-Firm Available Transmission Capacity (ATC) at 0800 MPT each day.

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OASIS General Business Practices Effective 05-03-2021 (oati.com)

October 7, 2021:

Reviewing PSCO's Hourly Non-Firm ATC postings for the CRG-FC345 path, I cannot find instances of the 18.5 MW being posted. Each day at just after 0600 MT, another day forward appears to be added to the posted timeframe. That additional day, however, shows 0 MW for all hours. And the 0 MW postings – at least for all recent days/hours reviewed -- does not change. For example, looking at any hour 1300-1400 MS today, October 7, 2022, the posted ATC is 0, and the posting references being last updated at 2021-09-30 06:03:16 MS. How does this reconcile with the Business Practice that calls for the 18.5 MW to be released as Non-Firm ATC at 0800 MPT today? Below are partial screenshot of the ATC query and the Posting Ref details for the top row shown.



October 7, 2021:

The values you are seeing are related to other factors shown in the available information posted in OASIS. PSCo has confirmed that the postback is occurring as previously described.

March 22, 2022:

We would like to understand how we should interpret the transmission rate in Schedule 2.

- Say the plant is a solar plant with a fixed nameplate at 100 MW while the actual generation fluctuate in the daytime hours.
 - Monthly/Weekly/Daily rate in \$/kw
 - Will the transmission customer pay for the rate multiplied by the nameplate capacity for reserved duration (months,

March 23, 2022

PSCo's responses are indicated below. For additional questions regarding Transmission and Ancillary Services questions you can contact our Operations representative, Brett Gruesner at 303-273-4782 or by email at PSCotariff@xcelenergy.com

Say the plant is a solar plant with a fixed nameplate at 100 MW while the actual generation fluctuate in the daytime hours

Monthly/Weekly/Daily rate in \$/kw : Will the transmission customer pay for the rate multiplied by the nameplate capacity for reserved duration (months, weeks or days) if they go with any of those three transmission service options?

PSCo Response: For point to point service to wheel power

weeks or days) if they go with any of those three transmission service options?

- Hourly rate in \$/kwh
 - Will the transmission customer pay for the rate multiplied by the actual hourly generation for the generation hours only if they go with this option? If so, will PSCo monitor and identify the actual utilization hours and utilized MWh at each hour to charge the customer correspondingly?
- Can you please confirm whether there is a maximum term (number of years) for any type of transmission services?
- For a multi-year transmission service agreement, will the transmission customer pay based on the tariff for the initial year when they enter the agreement, or the up-to-date transmission rate for that service year?
- According to the Schedule 2, the existing firm service customer will have reservation priority if the existing contract and new contract is for five years or more. Does the customer needs to go through a Transmission Service Request study again for the service renewal?

out of the PSCO system, the transmission rate will be based on the reservation MW. Note that the generator may be charged unreserved use if it generates more than the total of any associated transmission service reservations for a given hour.

Hourly rate in \$/kwh: Will the transmission customer pay for the rate multiplied by the actual hourly generation for the generation hours only if they go with this option? If so, will PSCo monitor and identify the actual utilization hours and utilized MWh at each hour to charge the customer correspondingly?

PSCo Response: For point to point service to wheel power out of the PSCO system, the transmission rate will be based on the reservation MW, whether or not the service is utilized. Note that the generator may be charged unreserved use if it generates more than the total of any associated transmission service reservations for a given hour.

Can you please confirm whether there is a maximum term (number of years) for any type of transmission services?

PSCo Response: The maximum term for any service is visible on PSCo's OASIS page for those with a Production Node login. Select Base Data, then Transmission Service Timing to view the durations for each service.

Short Name	Max Duration	Туре
DAILY FIRM	6	DAY
DAILY FIRM SLIDING	6	DAY
DAILY NETWORK	6	DAY
DAILY NON-FIRM	6	DAY
DAILY NON-FIRM SLIDING	6	DAY
HOURLY NON-DESIGNATE	49	HOUR
HOURLY NON-FIRM	49	HOUR
HOURLY REDIRECT	49	HOUR
MONTHLY FIRM	11	MONTH
MONTHLY NATIVE	11	MONTH
MONTHLY NETWORK	11	MONTH
MONTHLY NON-FIRM	11	MONTH
REGNL HOURLY NON- FIRM	24	HOUR
WEEKLY FIRM	3	WEEK
WEEKLY NETWORK	3	WEEK
WEEKLY NON-FIRM	3	WEEK
YEARLY FIRM	99	YEAR
YEARLY NETWORK	99	YEAR
EXTENDED		
YEARLY NETWORK SLIDING	99	YEAR

For a multi-year transmission service agreement, will the transmission customer pay based on the tariff for the initial year when they enter the agreement, or the up-to-date transmission rate for that service year?

PSCo Response: The transmission customer will be charged the transmission rate for the service year.

According to the Schedule 2, the existing firm service customer will have reservation priority if the existing contract and new contract is for five years or more. Does the customer needs to go through a Transmission Service Request study again for the service renewal?

PSCo Response: Generally, if the original study does not identify any reliability issues beyond year five, no additional study would be needed; if issues were identified in the initial report beyond year five, a new study would be required.

April 8, 2022

I note that this new business practice (BP) was posted Tuesday. Tri-State has several questions regarding this new BP. They are:

- 1. What is the basis for implementing the new BP?
- 2. Will PSCo require united power factor or some kind of bandwidth?
- 3. Does PSCo apply this same requirement to itself? (I assume the answer to this is yes.)
- 4. How would Net VAR Exchange be applied to a customer? Sub-Area VAR Exchange, or net of the VAR produced and absorbed? If Sub-Area VAR Exchange applies, where would this be measured?
- 5. Please clarify by what is meant by being "fully compensated locally" at a substation serving more than 25 MW of customer load.
- a. Does this require every substation with customer load greater than 25MW to maintain unity power factor as seen by the TOP on the transmission system?
- b. Is there a bandwidth of power factor allowed (i.e. +/-0.95 pf)? If not, this would imply dynamic VAR control would be required at every substation greater than 25MW. Please provide a basis for such a requirement when a customer has sufficient reactive supply elsewhere on the transmission system to provide the VAR requirements.

April 15, 2022

Based on the questions submitted, PSCo is evaluating clarifications to the Business Practice and therefore will delay implementation of this Business Practice.

PSCo will post a revised draft for comment in the near future. Comments should be submitted to both PSCoTariff@xcelenergy.com and brett.j.gruesner@xcelenergy.com.

Date Posted: 1/16/2024

Please let me know your timing for response. I understand the BP takes effect 10 days after posting.

May 10, 2022

We are a renewable energy development firm that is providing consulting services for an electric utility customer of yours. I would like to get in touch with the proper contacts to discuss whether Xcel/MISO regulations allow for virtual power purchase agreements (VPPAs) and, if so, what the application/approval process looks like, what wheeling fees and other charges may be relevant, and what restrictions there may be on size/location.

May 12, 2022

This forum is to respond to Transmission information related questions. We have determined that this question does not fit that category.

We suggest that you contact our Business Solution Center by emailing BSC@xcelenergy.com or by calling the Business Solution Center at 800-481-4700 (Monday - Friday 8 a.m. - 5 p.m.) and they will be able to put you in touch with the correct work group within Xcel Energy to address your questions.

January 5, 2024

I work for a renewable energy development company and I'm interested in information about the costs of transmission service across the PSCo transmission system. Our customer would not be a load serviced by PSCo, but an off-system load.

From your tariff, I am thinking the following would apply for a firm, annual P2P reservation across the PSCo system:

- Schedule 7
- Schedule 3A, with a rate specific to our generation technology
- Schedule 14, Real Power Losses, based on section 15.7

I've got a few questions here though!

First, is this list correct and comprehensive?

Second, schedule 3A in the workbook doesn't have units to it. The tariff suggests the units are \$/kW-month of reserved capacity (for monthly reservations). But the value in the workbook is \$8.328. This would make frequency regulation more expensive than capacity reservation, which doesn't seem right. Am I reading this correctly?

Third, the real power losses suggest that our P2P reservation would not deliver the full amount that we generate

January 16, 2024

We offer the following to assist you in addressing your questions, but this response does not override any provision of the tariff. It is the customer's responsibility to fully comply with and understand the tariff.

We understand your scenario/question to be as follows:

"...I'm interested in information about the costs of transmission service across the PSCo transmission system. Our customer would not be a load serviced by PSCo, but an off-system load... for a firm, annual P2P reservation across the PSCo system..."

Response:

The applicable schedules in this scenario would be:

- FERC Annual Charge
- Schedule 1 Scheduling, System Control and Dispatch Service
- Schedule 2 Reactive Supply and Voltage Control from Generation Or Other Sources Service
- Schedule 3A Regulation and Frequency Response Service for Point-To-Point Transmission Service For exports from Public Service Company of Colorado
- Schedule 7 Long-Term Firm and Short-Term Firm Point-To-Point Transmission Service
- Schedule 14 Point-To-Point Transmission Losses on the PSCo Transmission System

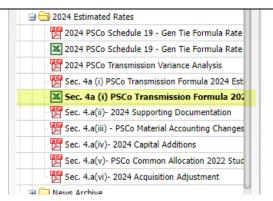
Your next question:

"... schedule 3A in the workbook doesn't have units to it. The tariff suggests the units are \$/kW-month of reserved capacity (for monthly reservations). But the value in the workbook is \$8.328. This would make frequency regulation more expensive than capacity reservation, which doesn't seem right. Am I reading this correctly?"

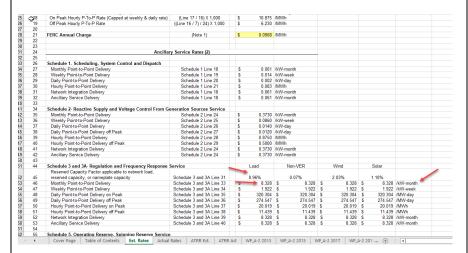
Response:

The units are visible in the spreadsheet posted on OASIS.

(assuming that is our election for compensating for losses)? How would we calculate it, using the energy or demand loss in section 15.7? And what would be our applicable reservation amount. For example, if I have 200MW at the POR, what MWs would I have at the POD and what MWs would I need reservations for?



Shown below is Schedule 3A Regulation and Frequency Response Service for Point-To-Point Transmission Service For exports from Public Service Company of Colorado. In the scenario you posed above, the 'capacity factor' for Load (0.96%) would be multiplied time the rate shown.



Your last question:

"the real power losses suggest that our P2P reservation would not deliver the full amount that we generate (assuming that is our election for compensating for losses)? How would we calculate it, using the energy or demand loss in section 15.7? And what would be our applicable reservation amount. For example, if I have 200MW at the POR, what MWs would I have at the POD and what MWs would I need reservations for?"

Response:

Schedule 14 Point-To-Point Transmission Losses on the PSCo Transmission System describes the methods for handling of losses: "...1) concurrently scheduling in-kind energy as specified in this Schedule 14; or 2) making payments for financial losses calculated as specified in this Schedule 14..."