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FEDERAL ENERGY
REGULATORY COMMISSION

UNITED STATES OF AMERICA
BEFORE THE
FEDERAL ENERGY REGULATORY COMMISSION

Information Requirements for Available
Transfer Capability

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Docket No. RM05-17-000

**COMMENTS OF COTTONWOOD ENERGY COMPANY LP,
KGEN POWER MANAGEMENT INC., SUEZ ENERGY
NORTH AMERICA, INC., AND UNION POWER PARTNERS, LP**

On May 27, 2005, the Federal Energy Regulatory Commission ("Commission") issued a Notice of Inquiry seeking comments on the North American Electric Reliability Council's ("NERC") Long-Term AFC/ATC Task Force Final Report ("NERC Report") and the advisability of revising and standardizing available transfer capability ("ATC") calculations.¹ The Generator Coalition² supports the Commission's attempts to encourage the electric industry to work towards standardization and coordination of ATC calculations. Such standardization is necessary to provide confidence in Transmission Providers' calculations, to reduce the possibility of discriminatory treatment in the marketplace, to provide transparency, and to increase reliability.

The Generator Coalition generally supports the recommendations in the NERC Report, however, it urges strengthening the report's conclusions and recommendations to include: (i) more standardization; (ii) more transparency; and (iii) more accountability. The Generator

¹ See Notice of Inquiry, Information Requirements for Available Transfer Capability, Docket No. RM05-17-000 (May 27, 2005) ("NOI").

² Cottonwood Energy Company L.P., KGen Power Management Inc., Suez Energy North America, Inc., and Union Power Partners, LP. (collectively, "Generator Coalition").

Coalition urges the Commission to provide further guidance on these matters so as to allow NERC to develop the appropriate standards and practices in a timely manner.

I.

THE GENERATOR COALITION'S COMMENTS

A. AFC/ATC Calculations Require More Standardization.

As the NERC Report states, a lack of standardization negatively impacts the markets and transmission systems.³ Standardization is important because it reduces the likelihood of discriminatory conduct; it promotes the use of best practices; and it can aid in increasing the reliability of transmission systems by eliminating potentially conflicting practices among neighboring Transmission Providers. Standardization could also help reduce the uncertainty that currently plagues some markets. For example, the available flowgate capability ("AFC") and ATC values on some systems change frequently and erratically. Indeed, on some systems, it is not uncommon to see AFCs fluctuate from 0 MW to 2,000 MW from one hour to the next. This makes it extremely difficult to conduct transactions, and standardizing the process should help reduce such uncertainty. With that in mind, the Generator Coalition recommends several areas where further standardization is required.

First, the *methodology for calculating AFC and ATC* should be standardized. While neighboring Transmission Providers may both use AFC to allocate transmission capacity, the two Transmission Providers may have very different methodologies for calculating AFC. For example, the Southwest Power Pool, Inc. ("SPP") has adopted a zonal approach for calculating

³ See NERC Report at 1.

AFC, whereas the Entergy Operating Companies' ("Entergy") AFC is generator-specific. Because SPP and Entergy use different methodologies for calculating AFC, it is more difficult to achieve the communication and coordination between the two neighboring areas envisioned by the NERC Report. Therefore, NERC should propose a standard method for determining AFC and ATC values.

Second, the NERC Report should *eliminate the incongruity between the way in which transmission is granted and the way in which it is curtailed*. Most Transmission Providers use a 3% cut-off for determining whether a transaction has an impact on a flowgate for AFC calculations. NERC's Transmission Loading Relief ("TLR") procedures, however, curtail only those transactions with a 5% impact on a flowgate. Thus, Transmission Providers are using different Transfer Distribution Factor ("TDF") cut-offs for loading and unloading flowgates, which means that those transactions with a 3-5% TDF impact on a flowgate will not be curtailed under TLR procedures. Because these transactions are exempt from TLRs, the Transmission Provider must curtail an even larger percentage of transactions with TDFs in excess of 5% in order to sufficiently unload flowgates. This is unfair. The NERC Report recognized this problem,⁴ but did not offer a solution. The Generator Coalition proposes that Transmission Providers use a 5% cut-off for determining when a transaction impacts a flowgate so that the method for allocating transmission corresponds with NERC's TLR procedures. This issue needs to be addressed to prevent certain customers from bearing a disproportionate share of the burden during TLRs and to align transmission allocation and curtailment procedures.

⁴ See NERC Report at 5.

Third, there should be greater standardization with regard to *developing the power flow models*. Power flow models provide the basis for computing AFC and ATC. Currently, there is no standard as to what should be included in these models, and each Transmission Provider develops its own assumptions and practices for this purpose. The NERC Report's Standard Authorization Request Form ("SAR") proposing a revision to existing Standard Number MOD-001-0, Section R1.7 proposes a list of data that should be provided when calculating Total Transfer Capability ("TTC") and ATC, but it does not specify how that data will be used.⁵ Instead, many of the recommendations in the SAR simply require the Transmission Provider to describe the assumptions used when calculating TTC and ATC; they do not set forth standardized assumptions or practices.⁶ The Generator Coalition maintains that the main objective of the power flow models should be to represent the expected operation of the transmission system as accurately as possible.⁷ In practice, however, commercial considerations can distort representations of the system in the power flow models, and therefore it is necessary to minimize the amount of discretion one can exert over such considerations. Clear, universal standards for developing power flow models and making those models available to the market would help eliminate such discretion, and, hopefully, provide for more accuracy and transparency. For example, the single most important modeling assumption is the generation dispatch because it determines the constrained flowgates and congested paths that determine how

⁵ See NERC Report, Att. A at SAR-5.

⁶ See, e.g., *id.*, R1.8, R1.9, R.10 at SAR-6.

⁷ The NERC Report generally agrees with the need for accuracy. See, e.g., NERC Report, App. B (Source/Sink) at 2 ("The transmission provider must rationalize the consistency of these assumptions with real time operations."); *id.* at 3 ("To the extent practical these assumptions need to reflect the actual generation dispatch used to implement a power transfer between two entities. If the source/sink assumptions do not reasonably mimic real time operations, the resultant ATC will reflect this inconsistency through values that result in overselling of transmission or the underutilization of the transmission capacity.").

much transmission capacity is allocated. Normally, in non-LMP markets, the expected Base Unit Commitment and Generation Dispatch is provided by the control area operator as a base dispatch that is “adjusted” by the Transmission Provider to meet the forecasted load and interchange for a given hour. In some parts of the country, Transmission Providers and market participants have spent considerable time and resources debating the issue of how generation dispatch should be modeled. The entire industry would benefit from the establishment of universal guidelines covering the commitment and dispatch of generation for AFC/ATC calculation purposes.

Another example centers around how Qualifying Facilities (“QF”) are modeled. Some Transmission Providers model QF output at zero, which does not reflect actual or likely power flows on the system. The NERC Report should create standards governing the development of power flow models so as to promote the most accurate and reliable simulation of the system possible. The Generator Coalition recognizes the difficulties inherent in establishing such standards, but industry-wide standards for developing power flow models are critical to ensure accurate AFC and ATC values.

Fourth, there should be standards for determining and using *equipment ratings*. While it may seem that determining the rating of a particular piece of electrical equipment would be straightforward, it is not. Different Transmission Providers use different rating policies in their analyses. Most types of equipment have different “ratings” for different types of usage. “Rate A,” the lowest, represents the equipment’s performance under a continuous use scenario. “Rate B” is a higher rating, and represents the equipment’s abilities to perform at a higher rating over a shorter period of time (e.g., 8 hours) before suffering damage. “Rate C” is the highest rating and represents the equipment’s abilities over an even shorter period of time, typically during an

emergency (e.g., 2 or 4 hours). Some Transmission Providers use a facility's Rate A for contingency events and emergency events. Others use Rate A under pre-contingency analyses, Rate B for contingencies, and Rate C for emergency situations. Transmission Providers using different ratings obtain different AFC and ATC values even though they are using the same equipment in similar conditions. As a result, this raises concerns about a Transmission Provider failing to fully utilize system capability based solely on the ratings that it chooses to use. The NERC Report should examine this issue and propose a standard for ratings.

Fifth, there should be a standard for *updating the power flow models* in a timely manner to support commercial operations. As noted above, the power flow models are the basis for calculating AFC and ATC. Transmission Providers should refresh their power flow models in sufficient time to allow for commercial transactions. It is important that the AFC/ATC calculations are using the latest system parameters when procuring transmission, or the Transmission Provider may wind up overselling or underselling the system. For example, at least one Transmission Provider "refreshes" its next-day AFC calculations at 11:50 A.M. Oftentimes, re-synching the system increases next-day AFCs. However, any customer seeking transmission for the next day must place its transmission request before noon on the preceding day or it cannot receive firm service. Refreshing the AFC and ATC values ten minutes before the noon deadline impairs the ability of market participants to enter into next-day transactions on a firm basis. On that particular system, the timeline for refreshing AFC values does not align with the timelines in other market rules, such as the scheduling rules. Developing a standard for how often, and when, Transmission Providers must update their systems (taking into account other relevant market rules) will ensure the most efficient use of the transmission system and provide the greatest opportunity to participate in the market.

Sixth, there should be more standardization regarding *the calculation of participation factors*. Participation factors are used to determine how much certain units, used as sources or sinks, will ramp up or down to simulate a transaction and to compute the transaction's impact on flowgates. Participation factors will determine TDF values of the transaction on a set of flowgates and, thus, have a direct impact on whether the transaction's TDF is above or below the cut-off and associated AFC value. On some systems, it is not uncommon to observe significant changes in the participation factors on short notice, and such changes have a major impact on AFC and ATC values. Changing participation factors may signal that one flowgate that previously was not a limiting flowgate becomes limiting. NERC should develop a standard that results in stable participations factors, which, in turn, should help stabilize AFC and ATC values.

The processes for calculating and using AFC and ATC requires more standardization. This will provide more accurate, stable, and transparent AFC and ATC values. The Generator Coalition recognizes, however, that specific Transmission Providers may have valid reasons for deviating from the standards. In such cases, the Transmission Provider should be able to work with other market participants in a Stakeholder process to address relevant concerns and determine how to adapt the standards to a particular system's needs. But developing the appropriate standards is the first step. The Generator Coalition submits that the NERC Report is a good start in this process, but recommends that the Commission request that NERC update its report to develop the standards discussed above.

B. The Commission Should Require More Transparency.

One of the main goals of the Commission's NOI should be to increase the transparency of the AFC/ATC calculations. In general, market participants should have access to the data and detailed, documented processes necessary to calculate AFC and ATC values, and should be able

to perform the same calculations to validate AFC and ATC values calculated by Transmission Providers. Transparency is a key issue in AFC and ATC calculations and one that the Commission should pay close attention to because it impacts the ability of market participants to understand the system conditions and accordingly make sound business decisions. The Generator Coalition has several recommendations for promoting transparency.

First, the Commission should require Transmission Providers to *clarify and document how they are using AFC and ATC values to grant transmission service*. Currently, some Transmission Providers are using undocumented business practices when granting transmission service, and it is essential that these practices either be eliminated or fully documented. For example, a well-known practice for obtaining transmission service is to submit a request for service even when there is no ATC, and to continue submitting requests until the requesting party obtains service. This practice works in some circumstances, and it raises the question of what posted AFC and ATC means. Are these values just good faith estimates? How can a transmission customer receive service if there is no ATC? The NERC Report does not address the issue of Transmission Providers' use of undocumented business practices in the allocation of transmission capacity, which the Commission should find objectionable. It is therefore important for the Commission to act on this issue as it may lead to discriminatory conduct. An open, transparent, and fully documented process is necessary to ensure that no party is discriminated against, that any standards developed by NERC have meaning, and that Transmission Providers allocate transmission capacity in a uniform, non-preferential manner.

Second, there needs to be more *transparency in the power flow models* in order to allow market participants to perform their own analyses and to validate Transmission Providers' calculations. In the Eastern interconnection, for example, Transmission Providers have

significantly different approaches to providing market participants with AFC power flow models and related data. Some Transmission Providers post several AFC power flow models per day and make the hourly flowgate flows available while others do not provide any current AFC models except for the AFC and ATC values posted on OASIS. This lack of transparency is not confined to non-RTO areas, and it potentially allows for unduly discriminatory conduct and “hiding” calculation errors. The issue of what AFC model data should be posted (and how often) is a contentious issue for some Transmission Providers,⁸ and was not addressed by the NERC Report. The Generator Coalition maintains that uniform standards for posting AFC/ATC models and data are needed in order to increase the transparency of the process.

Third, Transmission Providers should *post more flowgate-related data*. Many Transmission Providers compute ATC using some form of a flowgate approach. Such Transmission Providers have a list of flowgates that are used to check whether there is enough capacity to accommodate requested transactions. Consequently, flowgate flow and capacity are critical pieces of data in the determination and benchmarking of ATC values. Some Transmission Providers, however, provide little or no information about flowgate flows or limiting equipment (*i.e.*, the equipment setting capacity of the flowgate such as conductors, wavetraps, breakers, *etc.*). Similarly, Transmission Providers rarely post information describing how flowgate capacity could be increased or the costs associated with upgrading a particular flowgate. This is valuable information to the market. In the past, flowgates whose upgrade costs were relatively small constrained ATC values on critical paths. Better information regarding such flowgates may have resulted in parties agreeing to upgrade the flowgate. In order to avoid

⁸ Some Transmission Providers consider this data to be confidential.

such lost opportunities, Transmission Providers should post more information regarding the flowgates used in granting transmission service.

Fourth, more monitoring and transparency is necessary to *prevent ATC gaming*. The rules for processing transmission service requests can be used to game ATC when not properly monitored. These rules can be abused to block competitors from obtaining transmission access or to provide an unfair advantage by directly affecting the value of AFC on critical flowgates. For example, a market participant can submit a new reservation from any source to any sink, and the Transmission Provider will recalculate ATC to take into account the new reservation. Because reservation data, including the source and sink information, is masked until the reservation is confirmed, a market participant can use the reservation to affect ATC in such a way so as to block competitors' access to the system or to create counterflow for its other transactions.⁹ If the market participant never confirms the reservation, its anonymity will be protected and it can continue with this practice. Transmission Providers should be required to modify their business practices to eliminate this potential to game ATC, or they should be required to monitor their transmission systems closely to prevent such abuse. The NERC Report does not discuss how these business practices and rules can impact ATC values.

Fifth, Transmission Providers should provide *more transparency regarding the use of "Reliability Must Run" ("RMR") units*. In some cases, the RMR units' output fluctuates drastically in the power flow models from one day to the next, even when all other system

⁹ For example, a would-be transmission customer currently has the ability to reserve transmission service from Generator A (the source) to Sink B, despite not having any contract to purchase power from Generator A (and therefore being unable to use it as a source). This is known as "pointing" to Generator A. By placing a reservation on the path from A to B, the customer consumes AFC or ATC, which may (i) reduce the amount of capacity available for the Generator or (ii) create the appearance of a counterflow on another path that the customer may actually seek to use (it only creates the appearance because the reservation will never be confirmed or used).

parameters appear to be similar. In other cases, the output levels will differ in the operating, planning, and study horizons. Some Transmission Providers refuse even to identify RMR units. RMR units impact the power flows on the system, and thus impact AFC and ATC values. As such, in order to increase transparency on their systems, Transmission Provider should identify RMR units and fully document the conditions and rules used to run these units and set their output level.

C. Transmission Providers Should Be Accountable for Their Calculation of AFC and ATC Values.

Standardization and transparency is important, but it is not enough. Transmission Providers must also be held accountable for their calculations of AFC and ATC values. To that end, the Generator Coalition has three recommendations.

First, non-independent Transmission Providers (i.e., non-RTO Transmission Providers) should be held to a higher standard of accountability since such entities have more opportunity and motive to engage in discriminatory conduct. Non-independent Transmission Providers may have economic incentives to favor affiliated generation and they lack the Stakeholder processes typically found in RTOs. The Generator Coalition proposes that: (i) specific tests be developed for such entities to monitor their performance; (ii) the Commission annually review whether non-independent Transmission Providers have been properly calculating and allocating AFC and ATC; and (iii) *non-independent Transmission Providers meet at least annually with Stakeholders to discuss and review any issues surrounding the calculation and allocation of AFC and ATC.*

Second, Transmission Providers should correct errors in their ATC calculations without harming market participants. The NERC Report does not address the situation where modeling or calculation errors are uncovered in a Transmission Provider's ATC calculations and market

participants notify Transmission Providers of these errors. In such situations, Transmission Providers should be responsible for addressing the problem in a timely manner and in such a way that market participants are held harmless. Transmission Providers should be accountable for their mistakes and should not transfer the burden of correcting those mistakes to market participants that did not cause them.

Third, *benchmarks should be used to measure Transmission Providers' performances.* The NERC Report recognizes the importance of interregional ATC coordination and has created mechanisms for data exchange purposes.¹⁰ NERC should develop benchmarks or tests to verify that the proper coordination is taking place. For example, a good way to measure whether sufficient interregional coordination is taking place is by comparing a Transmission Provider's power flow model of its system with a neighboring entity's representation of the Transmission Provider's system. If the power flow representations differ significantly, this suggests that there should be better communication between the two entities or that one entity is not properly using the information provided to it. This is an example of how a benchmark or test can be used to identify potential problems and increase accountability. NERC should develop easy-to-use benchmarks that can be used to measure the performance of Transmission Providers. Such benchmarks will allow market participants to identify practices that are not working and this should facilitate efforts to require Transmission Providers to take the necessary steps to fix those practices.

¹⁰ See, e.g., NERC Report, App. A.

II.

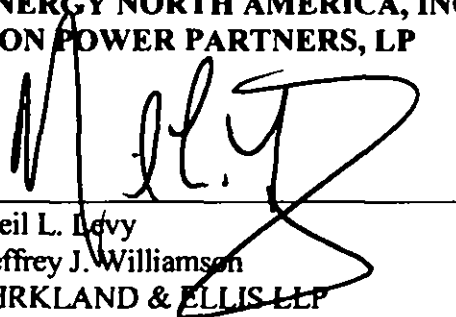
CONCLUSION

WHEREFORE, for the foregoing reasons, the Generator Coalition requests that the Commission accept these comments and grant the relief requested herein.

Respectfully submitted,

**COTTONWOOD ENERGY COMPANY LP,
KGEN POWER MANAGEMENT INC.,
SUEZ ENERGY NORTH AMERICA, INC.,
and UNION POWER PARTNERS, LP**

By:



Neil L. Levy
Jeffrey J. Williamson
KIRKLAND & ELLIS LLP
655 Fifteenth Street, NW
Suite 1200
Washington, DC 20005

**Counsel for Cottonwood Energy Company
LP, KGen Power Management Inc., Suez
Energy North America, Inc., and Union
Power Partners, LP**

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