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## **Natural Gas Pipeline Imbalances**

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# Natural Gas Pipeline Imbalances

James E. Goddard

## I. Introduction

In the world of natural gas pipelines, an imbalance is generally defined as the difference between a shipper's deliveries of natural gas into the pipeline system and re-deliveries of the shipper's natural gas off of the system, taking into account fuel used in pipeline operations and lost and unaccounted for gas. Where the quantity of natural gas delivered by a shipper, less the portion of fuel and lost and unaccounted for gas allocated to the shipper during the applicable period, is the same as the quantity of natural gas re-delivered to the shipper's account off the pipeline system, the shipper's receipts and deliveries are said to be in balance. Small imbalances generally do not impact the operations of a pipeline, but large imbalances can have a substantial impact on pipeline operations. For example, if a pipeline receives much more gas than it redelivers during a day, the pressures on the pipeline could increase to dangerous levels. Conversely, if the pipeline receives substantially less gas than it redelivers on a day, the pressures on the pipeline could drop so low that the pipeline could not deliver gas into higher-pressure downstream pipelines.

Although pipeline imbalances are equally important to interstate and intrastate pipelines, this paper focuses on the Federal Energy Regulatory Commission's ("FERC") regulations and policies applicable to interstate pipelines. For practitioners who are interested in regulations and policies governing imbalances on intrastate pipelines, it will be important to consult the state laws where the intrastate pipeline is located to determine whether or not the state regulations and policies are different from the regulations and policies of FERC.

## II. General Principles Regarding Imbalances

Before FERC restructured the interstate natural gas pipeline industry through Order No. 636, interstate pipelines were responsible to balance receipts and deliveries on their systems. To do so, the pipelines utilized natural gas storage facilities and pipeline line pack. However, after Order No. 636, the responsibility for balancing was transferred to shippers, and pipelines could impose significant penalties on shippers who did not balance receipts with deliveries. Over time, FERC established general policies, which it set forth in its regulations at 18 C.F.R. § 284.12(b)(2)(ii), (iii) and (v), regarding imbalance penalties. These general policies are:

1. A pipeline assessing imbalance penalties on its shippers must make imbalance management services available to the shippers;
2. Before imposing imbalance penalties, the pipeline must allow its shippers to net and trade imbalances;
3. Imbalance penalties are not required, but if they are assessed by a pipeline, imbalance penalties may only be assessed where necessary to ensure system reliability;

4. A pipeline that assesses imbalance penalties must provide to shippers, on a timely basis, as much information as possible regarding the imbalance and overrun status of each shipper and the entire pipeline system imbalance; and
5. A pipeline that assesses imbalance penalties may not retain the penalty revenues, but must credit the penalty revenues (net of costs) to shippers.

### III. Imbalance Management Services

In order to include imbalance penalties in its tariff, a pipeline must offer imbalance management services to its shippers. Specifically, FERC regulations state:

A pipeline with imbalance penalty provisions in its tariff must provide, to the extent operationally practicable, parking and lending or other services that facilitate the ability of its shippers to manage transportation imbalances. A pipeline must also provide its shippers the opportunity to obtain similar imbalance management services from other providers and shall provide those shippers using other providers access to transportation and other pipeline services without undue discrimination or preference. 18 C.F.R. § 284.12 (b)(2)(iii)(2010).

The primary imbalance management service pipelines offer is parking and lending service, which is essentially short-term storage service available through the use of the pipeline's line pack. An example of a park and loan agreement form is attached as Example 1 at the end of this paper. "Parking" service is a service where shippers may deliver additional gas during specified periods, which gas the pipeline will hold for the shipper for use in the future. "Lending" service is a service where a pipeline will lend gas to a shipper during a specified period, with the gas to be repaid at a future time.

As noted in the FERC Regulations, a pipeline is only required to offer parking and lending services "to the extent operationally practicable." However, the burden of showing that parking and lending services are not operationally practicable is fairly high. For example, High Island Offshore System L.L.C. ("HIOS") argued before FERC that it could not provide parking and lending service because HIOS was an entirely offshore pipeline with no storage facilities. FERC stated that it was "not persuaded that an offshore pipeline such as HIOS must have storage facilities in order to offer park and loan services. *High Island Offshore System L.L.C.*, 97 FERC ¶ 61,156, at 17 (2001). HIOS then explained to FERC that it could not utilize line pack to provide park and loan service, because HIOS must maintain steady pressures in order to stay within a narrow range of pressure that will keep gas flowing on its system and to downstream pipelines. FERC found that "HIOS has now presented a detailed explanation as to the operational infeasibility of such a service on its system . . . . Upon a review of HIOS explanation, the Commission is satisfied that HIOS should not be required to offer park-and-loan service at this time." *High Island Offshore System L.L.C.*, 98 FERC ¶ 61,081, at 6 (2002).

In addition to parking and lending service, FERC has authorized various other imbalance management service. For example, FERC approved a proposal for an automatic nomination service where the pipeline would automatically adjust a shipper's receipt and delivery nominations, if necessary to avoid imbalances. FERC approved the requested service noting that

the service will help shippers better manage gas supplies and minimize daily imbalances. *Reliant Energy Gas Transmission Co.*, 91 FERC ¶ 61,294, at 5 (2000). FERC has also approved a variety of other imbalance management service, such as deferred delivery services, auto-balancing services, and storage-in-transit services, for various pipelines over time. *See, e.g., Northern Natural Gas Co.*, 105 FERC ¶ 61,174 (2003) (deferred delivery service); *Northern Natural Gas Co.*, 101 FERC ¶ 61,203 (2002) (auto balancing service); *Columbia Gas Transmission LLC*, 131 FERC ¶ 61,193 (2010) (storage in transit service).

The above-cited regulation also requires a pipeline to allow third-party providers to provide imbalance management services. For example, Texas Gas Transmission Corp. allows delivery point operators to contract for authorized hourly overrun service to help mitigate imbalances that may accumulate at the applicable delivery point. *See Texas Gas Transmission Corp.*, 100 FERC ¶ 61,218 (2002). In any event, FERC allows pipelines to require the third parties who provide additional imbalance management tools to the pipeline's shippers to meet credit requirements appropriate for the quantity of shipper imbalance gas for which the third-party is responsible. *See PG&E Gas Transmission, Northwest Corp.*, 103 FERC ¶ 61,020 (2003); *Colorado Interstate Gas Co.*, 95 FERC ¶ 61,321 (2001).

Under certain circumstances, FERC will allow a pipeline to forego all imbalance management services. For example, Dominion South Pipeline Co. L.P. explained to FERC that it had entered into operational balancing agreements ("OBAs") with all of its interconnecting pipelines. An OBA is an agreement between a pipeline and a point operator addressing how the parties will handle imbalances at the applicable point. An OBA assures that shippers, once they have properly nominated gas and had their nominations confirmed, will not be subjected to imbalance penalties resulting from the transfers of gas between the OBA parties. An example of an OBA is included as Example 2 at the end of this paper. Given that Dominion's customers would not incur imbalances as a result of the operational balancing agreements being in place at all points on Dominion's system, FERC found that there was no need for Dominion to include imbalance penalties in Dominion's tariff and, accordingly, allowed Dominion to forego imbalance management services. *Dominion South Pipeline Co. L.P.*, 114 FERC ¶ 61,039, at P 14 (2006).

#### IV. Netting and Trading Imbalances

Even if the pipeline offers imbalance management services, as required by FERC regulations, the pipeline still cannot impose imbalance penalties on shippers unless the pipeline allows its shippers to net and trade imbalances. The FERC regulations state:

A pipeline must establish provisions permitting shippers and their agents to offset imbalances accruing on different contracts held by the shipper with the pipeline and to trade imbalances with other shippers where such imbalances have similar operational impacts on the pipeline's system. 18 C.F.R. § 284.12 (b)(2)(ii)(2010).

Thus, even if an imbalance remains for a shipper, after such shipper has taken advantage of available imbalance management service (or elected to not take advantage of such services), the shipper will have another opportunity to avoid imbalance penalties through netting or trading the imbalance. "Netting" is the practice of offsetting imbalances on different contracts held by the

same shipper. “Trading” is the practice of offsetting imbalances between different shippers. Shippers cannot be required by a pipeline to net imbalances before instituting imbalance trades, or *vice versa*. *Dominion Transmission Inc.*, 95 FERC ¶ 61,276 (2001). However, where a pipeline requires shippers to pay transportation charges for imbalance trading, FERC has determined that “such shippers must have the opportunity to determine whether they desire to make the imbalance trades prior to the netting of their imbalance amounts in order that such shippers may resolve their imbalances as they see fit.” *Transcontinental Gas Pipeline Co.*, 100 FERC ¶61,225, at P 8 (2002).

## V. Ensuring System Reliability

In addition to required imbalance management services and the requirement that a pipeline must allow shippers to net and trade imbalances prior to imposing imbalance penalties, FERC will only allow a pipeline to charge imbalance penalties “to the extent necessary to prevent the impairment of reliable service.” 18 C.F.R. § 284.12 (b)(2)(v)(2010). However, FERC does not always require a showing of actual harm to the pipeline. For example, where a pipeline’s penalties are designed to minimize the opportunity for arbitrage, a showing that the arbitrage was causing operational problems is not always required. *See Columbia Gas Transmission Corp.*, 116 FERC ¶ 61,097 (2006). Similarly, FERC has allowed pipelines to implement nominal scheduling penalties during non-critical periods without a showing of operational harm. *Columbia Gas Transmission Corp.*, 119 FERC ¶ 61,267 (2007); *see also Millennium Pipeline Co. L.L.C.*, 130 FERC ¶ 61,074 (2010). FERC noted that such penalties are appropriate “because penalties should also provide an incentive for shippers to schedule accurately and to compensate the pipeline for lost opportunity costs.” *El Paso Natural Gas Co.*, 121 FERC ¶ 61,265 at P 28 (2007) (citing *Columbia Gas Transmission Co.*, 119 FERC ¶ 61,267 at P 29 (2007)).

## VI. Information Related to Imbalances

On top of the other hand-cuffs placed on pipelines before they can assess imbalance penalties, FERC also requires that: “A pipeline with penalty provisions in its tariff must provide to shippers, on a timely basis, as much information as possible about the imbalance and overrun status of each shipper and the imbalance of the pipeline’s system.” 18 C.F.R. § 284.12 (b)(2)(v)(2010). FERC generally requires pipelines to include provisions in their tariffs stating that the pipeline will provide, on its website or electronic bulletin board, daily information on the imbalance and overrun status of each shipper and the system as a whole, and to specify how often this data will be updated. *Great Lakes Gas Transmission L.P.*, 103 FERC ¶ 61,133, *order on noncompliance*, 105 FERC ¶ 61,129 (2003). Additionally, FERC requires pipelines to clarify whether its imbalance and overrun penalties will be based on the data provided on the internet, or on later, actual data. *Id.*

## VII. Crediting of Imbalance Penalties

Suppose a pipeline clears all the hurdles imposed by FERC with regard to the assessment of imbalance penalties (*i.e.*, the pipeline provides imbalance management services, the pipeline allows its shippers to net and trade imbalances, the pipeline shows that imbalance penalties are necessary to prevent the impairment of reliable service, and the pipeline provides its shippers

with as much information about imbalances as possible), then the pipeline is rewarded by FERC with the right to . . . . give the imbalance penalties back to its shippers. FERC’s regulations provide: “Pipelines may not retain net penalty revenues, but must credit them to shippers in a manner to be prescribed in the pipeline’s tariff.” 18 C.F.R. § 284.12 (b)(2)(v)(2010). A penalty, according to FERC, is “any charge imposed by the pipeline on a shipper that is designed to deter the shipper from engaging in certain conduct.” *Natural Gas Pipeline Co. of America*, 101 FERC ¶ 61,200 at P 79 (2002). Pipelines have devised a number of different penalty mechanisms designed to deter the creation of imbalances. Some pipelines have a set-fee imbalance charge that does not change on a month-to-month basis. For example, Empire Pipeline, Inc.’s tariff includes the following imbalance penalty provision:

**Daily Imbalance Penalty:** Daily Imbalance Penalties shall be paid for each Dth of Gas by which the aggregate quantity of Gas scheduled for delivery by Transporter to Shipper in a Day exceeds by two percent (2%), or is less by two percent (2%) than, the total of Dth’s delivered to Shipper during such Day, after eliminating any portion of such difference which is caused by action of Transporter. Such penalty charges shall be:

- variations > 2% ≤ 4% \$ 5.00 per Dth
- variations > 4% ≤ 5% \$10.00 per Dth
- variations > 5% \$15.00 per Dth

Empire Pipeline, Inc., FERC Gas Tariff, Original Sheet No. 133, General Terms and Conditions § 4.7, effective Dec. 10, 2008.

Other pipelines provide for the “cashing out” of imbalances by reference to a natural gas price index. Many of the cash out provisions are tiered so that higher penalties are imposed on larger imbalances. For example, High Island Offshore System, L.L.C.’s tariff includes the following imbalance penalty provision (“AMIP” refers to the “Average Monthly Index Price,” which is a monthly average of the weekly prices for specified points published in *Natural Gas Week*):

Monthly Cashout Procedures. Any portion of a Shipper’s [Total Monthly Imbalance] remaining after the end of the Trading Period will be cashed out on a tiered basis pursuant to the following schedule:

| <u>IMBALANCE LEVEL</u>     | <u>OVERAGE<br/>(HIOS Pays Shipper)</u> | <u>UNDERAGE<br/>(Shipper Pays HIOS)</u> |
|----------------------------|--|---|
| 0% to 5%                   | 100% x AMIP                            | 100% x AMIP                             |
| Greater than<br>5% to 10%  | 90% x AMIP                             | 110% x AMIP                             |
| Greater than<br>10% to 15% | 80% x AMIP                             | 120% x AMIP                             |
| Greater than<br>15% to 20% | 70% x AMIP                             | 130% x AMIP                             |
| Greater than<br>20%        | 60% x AMIP                             | 140% x AMIP                             |

High Island Offshore System, L.L.C., FERC Gas Tariff, Substitute Second Revised Sheet No. 106, General Terms and Conditions §8.4, Effective Sep. 1, 2006.

FERC's general policy is that a pipeline is entitled to recover its costs in providing service, plus a reasonable return. FERC views penalty revenues as additional revenues on top of the pipeline's cost of service and return. Therefore, FERC does not allow pipelines to retain the penalty revenues; rather FERC generally requires pipelines to refund all penalty revenues (net of costs) to their shippers who did not create the imbalance. With respect to the costs netted against the penalty revenues, a pipeline may only net the costs it demonstrates are "actual, valid, prudently incurred costs." *Columbia Gulf Transmission Co.*, 100 FERC ¶ 61,344 (2002).

FERC requires crediting of revenues to all classes of customers upon whom imbalance penalties are assessed. As noted by FERC, "All shippers including interruptible shippers and negotiated rate shippers are subject to penalties, and therefore should receive their proportional share of any net penalty revenues." *Questar Pipeline Co.*, 98 FERC ¶ 61,159 at 33 (2002). In addition, where a pipeline confiscates gas as a form of penalty, the pipeline must credit to shippers the value of the gas taken. See *Colorado Interstate Gas Co.*, 97 FERC ¶ 61,011 (2001); *Vector Pipeline L.P.*, 99 FERC ¶ 61,336 (2002).

## VIII. Conclusion

All market participants recognize that imbalances are an important issue for pipelines. Pipelines include numerous provisions in their tariffs in an effort to prevent imbalances. However, even despite pipelines' efforts to prevent imbalances, imbalances do occur on all pipelines. FERC allows pipelines to include imbalance penalty provisions in their tariffs, but the pipelines are subject to several strict hurdles before they can actually impose penalties upon shippers. And, even if the pipelines can get over these hurdles, they are not entitled to retain the penalty revenues – they must credit the revenues back to the non-offending shippers.

## Example 1 – Park and Loan Agreement

(Source: <http://www.vector-pipeline.com/WorkArea/downloadasset/6094/VPUS-Form-of-Park-and-Loan-Service-Agreement.aspx>)

### FORM OF PARK AND LOAN SERVICE AGREEMENT AGREEMENT FOR PARK AND LOAN SERVICE VECTOR PIPELINE L.P.

Park and Loan Service Agreement No. \_\_\_\_\_

THIS AGREEMENT FOR AUTHORIZED PARK AND LOAN SERVICE of Natural Gas (hereafter “**PALS Agreement**” or “**Agreement**”) is made and entered into as of this \_\_\_\_\_ day of \_\_\_\_\_, \_\_\_\_\_, by and between:

**VECTOR PIPELINE L.P.**, (“**Transporter**”),

and

\_\_\_\_\_, (“**Shipper**”).

WITNESSETH: That in consideration of the mutual covenants herein the parties agree as follows:

#### **Article I. Governmental Authority**

- 1.1 This PALS Agreement is made pursuant to the regulations of the] Federal Energy Regulatory Commission (Commission) contained in 18 C.F.R. Part 284, as amended from time to time.
- 1.2 This Agreement is subject to all valid legislation with respect to the subject matters hereof, either state or federal, and to all valid present and future decisions, orders, rules, regulations and ordinances of all duly constituted governmental authorities having jurisdiction.

#### **Article II. Quantity of Gas And Priority of Service**

- 2.1 Transporter shall park and/or loan, on an interruptible basis, quantities of Gas for or to Shipper beginning on the date specified in Article III, and continuing for the remaining term specified in Article III, in accordance with the provisions of Transporter’s effective Rate Schedule PALS-1 and the applicable General Terms and Conditions of Transporter’s FERC Gas Tariff.
- 2.2 The service under this Agreement shall be conditioned upon the availability of capacity sufficient to provide the service without detriment or disadvantage to those customers of Transporter that have a higher priority of service.

- 2.3 Prior to initiation of service, Shipper shall provide Transporter with any information required by the Commission, as well as all information identified in Transporter's General Terms and Conditions ("GT&C") applicable to Rate Schedule PALS-1.

### **Article III. Term of Agreement**

- 3.1 This Agreement shall become effective as of \_\_\_\_\_, and shall continue in full force and effect until terminated by either party at any time upon ten (10) days prior written notice; provided, however, that neither termination nor notice thereof shall relieve either party of the obligation to perform pursuant to the terms of this Agreement as relates to any transaction commencing prior to termination.

### **Article IV. Points of Receipt and Delivery**

- 4.1 The point(s) of receipt and delivery of Gas to Transporter is (are) as designated by the parties.
- 4.2 Shipper shall deliver or cause to be delivered to Transporter any Gas to be parked, or loaned Gas to be repaid hereunder at pressures sufficient to deliver such Gas into Transporter's system at the point(s) of receipt.

### **Article V. Rate(s), Rate Schedules and General Terms and Conditions of Service**

- 5.1 Shipper shall pay Transporter each month for services rendered pursuant to this Agreement in accordance with Transporter's Rate Schedule PALS-1, or superseding rate schedule(s), on file with and subject to the jurisdiction of the Commission.
- 5.2 Unless otherwise mutually agreed to, Shipper shall pay Transporter for services nominated hereunder the maximum applicable rates and charges, as established under Rate Schedule PALS-1 and set forth on the Statement of Rates and Charges in Transporter's effective FERC Gas Tariff, including any applicable surcharges.
- 5.3 Transporter shall have the unilateral right from time to time to propose and file with the Commission such changes in the rates and charges applicable to Park and Loan Service pursuant to this Agreement, the Rate Schedule under which this service is hereunder provided, or any provisions of Transporter's GT&C applicable to such services. Shipper shall have the right to protest any such changes proposed by Transporter and to exercise any other rights that Shipper may have with respect thereto.

## Article VI. Miscellaneous

- 6.1 This Agreement shall be interpreted according to the laws of the State of Michigan.
- 6.2 Shipper agrees to indemnify and hold Transporter harmless for refusal to park or loan Gas hereunder in the event any interconnecting party fails to receive or deliver Gas as contemplated by this Agreement.
- 6.3 Unless herein provided to the contrary, any notice called for in this Agreement shall be in writing and shall be considered as having been given if delivered by certified mail or fax with all postage or charges prepaid, to either Transporter or Shipper at the location designated herein. Written communications shall be considered as duly delivered when received by ordinary mail. Unless otherwise notified in writing, the addresses of the parties are as follows:

Transporter:                   Vector Pipeline L.P.  
                                      c/o Vector Pipeline, LLC  
                                      38705 Seven Mile Road, Suite 490  
                                      Livonia, Michigan 48152  
                                      Attention: President  
                                      Fax: (734) 462-0231

Shipper:

- 6.4 A waiver by either party of any one or more defaults by the other hereunder shall not operate as a waiver of any future default or defaults, whether of a like or of a different character.
- 6.5 This Agreement may only be amended by an instrument in writing executed by both parties hereto.
- 6.6 Nothing in this Agreement shall be deemed to create any rights or obligations between the parties hereto after the expiration of the term set forth herein, except that termination of this Agreement shall not relieve either party of the obligation to correct any quantity imbalances or Shipper of the obligation to pay any amounts due hereunder to Transporter.
- 6.7 Performance of this Agreement shall be subject to all valid laws, orders, decisions, rules and regulations of duly constituted governmental authorities having jurisdiction or control of any matter related hereto. Should either of the parties, by force of any such law, order, decision, rule or regulation, at any time during the term of this Agreement be ordered or required to do any act inconsistent with the provisions hereof, then for the period during which the requirements of such law, order, decision, rule or regulation are applicable, this Agreement shall be deemed modified to conform with the requirement of such law, order, decision, rule or regulation; provided, however, nothing in this section

6.7 shall alter, modify or otherwise affect the respective rights of the parties to cancel or terminate this Agreement under the terms and conditions hereof.

- 6.8 The parties hereby agree, subject to the primary jurisdiction of the Commission, that any dispute arising out of or relating to this Agreement, or any breach thereof, shall be submitted to final and binding arbitration in Detroit, Michigan, in accordance with the Rules of Commercial Arbitration of the American Arbitration Association (AAA) then in effect. The dispute shall be decided by a panel of three neutral arbitrators, qualified by education, training, and experience to hear the dispute, chosen as follows. The party initiating the arbitration proceeding shall name one arbitrator at the time it notifies the other party of its intention to arbitrate their dispute, and the responding party shall name an arbitrator within fifteen (15) days of receiving the above notification. Within twenty (20) days of the appointment of the second arbitrator, the two arbitrators shall select a third arbitrator to act as chairman of the tribunal. If either party fails to appoint an arbitrator within the allotted time or the two party-appointed, neutral arbitrators fail to appoint a third arbitrator as provided above, the AAA shall appoint the arbitrator(s). Any vacancies will be filled in accordance with the above procedure. The parties expressly agree to the consolidation of separate arbitral proceedings for the resolution in a single proceeding of all disputes that arise from the same factual situation, and the parties further expressly agree that any issue of arbitrability or the existence, validity, and scope of the agreement to arbitrate shall be decided by the arbitrators.

The parties further agree that either party may apply to a court of competent jurisdiction, pending arbitration, for injunctive relief to preserve the status quo, to preserve assets, or to protect documents from loss or destruction, and such application will not be deemed inconsistent with or operate as a waiver of the party's right to arbitration. The arbitrators shall apply as the substantive law to the dispute the laws of the State of Michigan, as specified in section 6.1 of this Agreement.

**IN WITNESS WHEREOF**, the parties hereto have duly executed this Agreement in one or more counterparts, which counterparts shall constitute one integrated agreement, by their duly authorized officers effective as of the day first above written.

**VECTOR PIPELINE L.P.**  
**By VECTOR PIPELINE, LLC**  
**As General Partner**  
**(Transporter)**

Date: \_\_\_\_\_

By: \_\_\_\_\_

Title: \_\_\_\_\_

**(Shipper)**

Date: \_\_\_\_\_

By: \_\_\_\_\_

Title: \_\_\_\_\_

## Example 2 – Operational Balancing Agreement

(Source: <http://services.kernrivergas.com/portal/DesktopModules/ViewDocument.aspx?DocumentID=644>)

### OPERATIONAL BALANCING AGREEMENT

THIS OPERATIONAL BALANCING AGREEMENT ("OBA") is made and entered into by and between \_\_\_\_\_, a \_\_\_\_\_ with offices at \_\_\_\_\_, and **KERN RIVER GAS TRANSMISSION COMPANY** ("Kern River"), a Texas general partnership with offices at \_\_\_\_\_ (collectively the "Parties" or individually as "Party"), this \_\_\_\_ day of \_\_\_\_\_ 20\_\_.

#### WITNESSETH

WHEREAS, \_\_\_\_\_ operates delivery or receipt point facilities that are situated or will be situated at locations specified in Exhibit 1 attached hereto and incorporated herein by reference ("Location");

WHEREAS, \_\_\_\_\_ and/or Kern River have entered into one or more agreements with third party service requesters ("Service Requester(s)") for the transportation of gas to or from the Location on their respective systems ("Service Requester Agreements");

WHEREAS, from time to time, the quantities of gas confirmed and scheduled by the parties to be delivered to or received from the Location ("Scheduled Quantities") may be greater than or less than the quantities of gas which are actually delivered at the Location, resulting in over- or under-deliveries relative to Scheduled Quantities; and

WHEREAS, the Parties desire to implement an operational balancing agreement in order to facilitate more efficient operations, accounting, and systems management at the Location and on the Parties' respective systems.

NOW, THEREFORE, in consideration of the premises and mutual covenants contained herein, the Parties agree as follows:

1. Prior to the date and time of flow at each Location, the Parties shall confirm and schedule nominations for gas which will be delivered or received at each Location. Such nominations and confirmations between the Parties shall be made by electronic data exchange, unless otherwise mutually agreed to by the Parties.
2. The Parties intend that the quantity of gas actually delivered and received each day at each Location will equal the Scheduled Quantities for that Location. All Scheduled Quantities at each Location shall be deemed to have been delivered and received. Any imbalance created, when the actual physical flow is different than the Scheduled Quantities, will be the "Operational Imbalance," which will be the aggregate of imbalances from each Location and will be the responsibility of the Parties to eliminate pursuant to this OBA.
3. Estimated operating quantities flowing at each Location shall be used during any current period to determine the estimated Operational Imbalance at such Location, with physical

flow adjustments and the corresponding nomination adjustments to be made during that current period as mutually agreed to by both Parties to attempt to maintain or achieve an Operational Imbalance of zero.

- a. The actual measured quantity of gas at the Location each month shall be determined and communicated by Kern River by facsimile, electronic interface system or in writing to the other Party in accordance with NAESB Standard 2.3.7. Operational Imbalances shall be calculated initially by Kern River and shall be agreed to by the Parties prior to the 9th business day following the end of each month.
  - b. Operational imbalances shall be resolved as follows: Parties shall cooperate to minimize the daily over- and under-deliveries. In this regard, Kern River's and \_\_\_\_\_'s gas control personnel shall be in contact each day, as needed, to establish the rate at which gas shall be delivered to or received from Kern River in order to balance with daily authorized quantities of gas. Kern River's gas control shall have the right to take actions of whatever nature may be required (including termination or reduction of service to the Location) to correct any imbalances which impair the operation of or threaten the integrity of Kern River's system, including maintenance of service to other shippers.
4. In the event that a capacity constraint occurs on either Party's system which results in curtailment of Scheduled Quantities through a Location, the Party on whose system the constraint has occurred shall determine the confirmation of quantities to the Service Requester under the affected Service Requester Agreements. Such change in Scheduled Quantities shall be confirmed by electronic data exchange, unless otherwise mutually agreed to as required in Paragraph 1 above. If the constraint occurs at a Location, Kern River shall determine the confirmation of quantities to the Service Requester under the affected Service Requester Agreements, unless otherwise mutually agreed.
  5. This OBA is entered into in order to facilitate operations and accounting between the Parties, and shall have no effect upon the Service Requester Agreements or upon the effectiveness of either Party's tariff.
  6. This OBA shall be amended only by an instrument in writing executed by both parties hereto.
  7. Notwithstanding the termination of this OBA, the Parties agree to reconcile and eliminate any remaining Operational Imbalance pursuant to the terms and conditions of this OBA within 30 days of termination of this OBA or such other period of time which is mutually agreed to by the Parties.
  8. This OBA and the terms and conditions herein are subject to all present and future valid laws, orders, rules and regulations of duly constituted authorities having jurisdiction.

9. In the event a conflict exists or arises between this OBA and Kern River's FERC Gas Tariff, the latter shall control.
10. This OBA is for accounting and system management purposes only, and is entered into by the Parties with the understanding that the balancing activities provided for hereunder will not subject any non-jurisdictional entity to regulation as a "natural gas company" under the provisions of the Natural Gas Act. If, at any time, it should be determined that such balancing activities do result in such regulation, then this OBA shall immediately terminate, and any remaining Operational Imbalance shall be resolved by the Parties within 30 days after termination of this OBA.
11. Any entity which shall succeed by purchase, merger or consolidation to the properties, substantially as an entity, of either Party, shall be subject to the obligations of its predecessor to this OBA. No other assignment of this OBA or of any of the rights or obligations hereunder shall be made.
12. This OBA shall be governed by and construed in accordance with the laws of the State of Utah, without regard to conflict of laws provisions thereof.
13. Except as otherwise provided, any notice, request, or statement provided pursuant to this OBA shall be in writing and shall be given by hand, or by facsimile, by a recognized overnight courier service providing confirmation of delivery, addressed as follows:

Transporter:  
 KERN RIVER GAS TRANSMISSION COMPANY  
 Attention: Marketing and Customer Services  
 2755 East Cottonwood Parkway, Suite 300  
 Salt Lake City, UT 84171-0400  
 Facsimile: 801-937-6444

Operator:

Attention: \_\_\_\_\_

\_\_\_\_\_

Facsimile: \_\_\_\_\_

Changes to the above addresses shall be effectuated by a Party notifying the other Party in writing of the modification.

- 14. A waiver by either Party of any one or more defaults by the other Party hereunder shall not operate as a waiver of any future default or defaults, whether of like or different character.
- 15. The Effective Date of this OBA shall be \_\_\_\_\_.
- 16. This OBA may be cancelled by either party by giving ten (10) days prior written notice to the other party.

IN WITNESS WHEREOF, the Parties hereto have executed this Operational Balancing Agreement on the date set forth herein above.

OPERATOR NAME

KERN RIVER GAS TRANSMISSION COMPANY

By: \_\_\_\_\_

By: \_\_\_\_\_

Name: \_\_\_\_\_

Name: Preston Miller

Title: \_\_\_\_\_

Title: Manager, Marketing & Customer Services

**EXHIBIT 1**

To the Operational Balancing Agreement

Between

\_\_\_\_\_

**AND**

**KERN RIVER GAS TRANSMISSION COMPANY**

DATED: \_\_\_\_\_

| <u>LOCATION</u><br>PARTY NAME | D-U-N-S®<br>NUMBER | PROPRIETARY<br>GAS<br>TRANSACTION<br>POINT CODE | DRN NUMBER | DESCRIPTION |
|-------------------------------|--------------------|---|------------|-------------|
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## Pipeline Imbalances

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## What Is a Pipeline Imbalance?

Simply put, a pipeline imbalance is:

$$A - (B + C)$$

Where:

A = The quantity of gas received by the pipeline for a shipper's account;

B = The quantity of gas redelivered by the pipeline for the shipper's account during the same period; and

C = the quantity of gas allocated to the shipper's account for fuel used in pipeline operations and lost and unaccounted for gas

