

123 FERC ¶ 61,099  
UNITED STATES OF AMERICA  
FEDERAL ENERGY REGULATORY COMMISSION

Before Commissioners: Joseph T. Kelliher, Chairman;  
Sudeen G. Kelly, Marc Spitzer,  
Philip D. Moeller, and Jon Wellinghoff.

Colorado Interstate Gas Company

Docket No. CP08-30-000

ORDER ISSUING CERTIFICATE

(Issued April 30, 2008)

1. On November 29, 2007, in Docket No. CP08-30-000, Colorado Interstate Gas Company (CIG) filed an application pursuant to section 7 of the Natural Gas Act (NGA) and Part 157 of the Commission's regulations requesting a certificate of public convenience and necessity for the construction and operation of the Totem Gas Storage Field, to be located in Adams County, Colorado. Upon completion of all phases of development, the new storage field will have a working gas capacity of 7.0 Bcf, an injection rate of 100 MMcf per day, and a withdrawal rate of 200 MMcf per day. For the reasons discussed below, the Commission will issue CIG's requested certificate authorization as conditioned herein.

**I. Background and Proposal**

2. CIG is a natural gas company under the NGA and is subject to the jurisdiction of the Commission. CIG's interstate pipeline system extends from supply areas in Texas, Oklahoma, Kansas, Colorado, Wyoming, Montana and Utah to major delivery areas along the eastern slope of the Rocky Mountains in Colorado and Wyoming. CIG's pipeline system also interconnects with other interstate pipelines in all of the states in which it operates, except Montana.

**A. Storage Field Development**

3. CIG proposes to develop the Totem Gas Storage Field in the nearly depleted Totem (gas and oil production) Field located in Adams County, Colorado, approximately

34 miles northeast of the city of Denver.<sup>1</sup> The proposed storage field will be directly connected with the incremental pipeline facilities that CIG proposed in its High Plains Expansion Project, recently approved in Docket No. CP07-207-000.<sup>2</sup> Production commenced from the Totem Field in 1991 and since then approximately 9.0 Bcf of the estimated 9.75 Bcf of original gas in place in the Dakota J Sand geologic formation has been produced. The field also produced approximately 170,000 barrels of condensate from the Dakota J Sand and 0.7 Bcf of gas and 214,000 barrels of oil from the Dakota D Sand, which is located above the Dakota J Sand.

4. In total there were 13 commercially-productive wells in the Totem Field, five of which produced 90 percent of the cumulative gas production from the Dakota J Sand. Oil and gas from the Totem Field have been previously produced under the jurisdiction of the Colorado Oil and Gas Conservation Commission (COGCC). CIG states that, upon the granting of a certificate by the Commission, it will obtain the necessary well permits for storage operations from the COGCC. CIG notes that several existing wells in the Totem Field were completed utilizing hydraulic fracture treatments that may have weakened the Dakota J Sand strata and its associated caprock, resulting in minor communication between the Dakota D Sand and the proposed Dakota J Sand storage reservoir. For this reason, CIG is seeking Commission authorization to acquire subsurface storage and mineral rights for both formations.

5. CIG proposes to develop the Totem Gas Storage Field in two stages to minimize development risk and allow for a suitable evaluation of the proposed horizontal injection/withdrawal performance. In the first stage, CIG will perform workovers on 23 active and abandoned wells and dry holes in the Totem Field to ensure the integrity of the field before storage operations begin.<sup>3</sup> Specifically, CIG proposes to re-enter and workover 16 previously plugged and abandoned wells. Six of these abandoned wells will be re-plugged, seven of the abandoned wells will be re-completed and converted into

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<sup>1</sup> On January 25, 2000, Renegade Oil and Gas Company, L.L.C (Renegade), former owner of the Totem Field, was granted a certificate of public convenience and necessity from the Colorado Public Utilities Commission (Colorado PUC) to develop an underground storage facility at the Totem Field. However, Renegade was unable to develop a market for the project and elected not to go forward with the project. The Colorado PUC issued an order on May 9, 2007, abandoning the January 25, 2000 Certificate.

<sup>2</sup> *Colorado Interstate Gas Co.*, 122 FERC ¶ 61,256 (2008).

<sup>3</sup> CIG defines workover as the operations and activities performed on a completed production or abandoned well to clean, repair, and maintain the well to increase or restore production, to replug the well, or in the case of its proposal, to prepare the wells for use in the storage field.

observation wells,<sup>4</sup> while the three other abandoned wells will be converted to injection/withdrawal wells. Next, CIG will re-enter all seven current, active producing wells and convert two of these production wells to injection/withdrawal wells, convert three of the production wells to observation wells, and plug and abandon two of the production wells.

6. Once CIG completes the workovers and integrity testing of the wells, CIG will core and test three vertically drilled wells to verify the rock properties of the Dakota J Sand strata and the overlying cap rock.<sup>5</sup> If the test results satisfactorily confirm and further define the characteristics of the storage field, CIG will proceed with the second stage of development for the storage field and install temporary compression to begin base gas injections into the storage field. CIG anticipates commencing injections of base gas in the fourth quarter of 2008 and continuing through the first quarter of 2009.

7. Once total injections reach approximately 3.7 Bcf, CIG will drill five new horizontal injection/withdrawal wells commencing in the second quarter of 2009. CIG will evaluate the performance of these wells during the 2009-2010 withdrawal season and decide whether to drill three additional horizontal injection/withdrawal wells in the second and third quarters of 2010 or to drill more vertical wells instead.<sup>6</sup> For ongoing storage injection operations CIG will construct and operate a permanent compressor station consisting of two Caterpillar 3616 natural gas-fired reciprocating compressors totaling 9,470 horsepower (ISO).

8. In summary, upon completion of all phases of development the storage project will consist of the following: (i) 13 injection/withdrawal wells (eight new horizontal wells and five vertical re-entered wells); (ii) 1 water disposal well; (iii) up to twelve

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<sup>4</sup> In a January 10, 2008 supplement, CIG clarified that one of these wells, Well No. 24, may be re-plugged and abandoned if CIG determines that it would not be suitable for an observation well.

<sup>5</sup> After coring and testing, two of these wells will be used as Dakota J Sand observation wells and one as a Dakota J Sand water disposal well. In its January 10, 2008 supplement, CIG states that the drilling of one of these observation wells, Well No. 25, is subject to CIG's securing surface and subsurface rights. If these rights are not obtained, CIG states that it will not drill this well, and amendment to CIG's certificate authority may be required.

<sup>6</sup> CIG expects each horizontal injection/withdrawal well to provide roughly the same performance as four or five vertical injection/withdrawal wells. However, if CIG determines that it may be more appropriate to use vertical wells rather than horizontal wells because of geologic conditions, it will seek the necessary authorizations from the Commission.

observation wells depending on the circumstances described above; (iv) a 9,470 horsepower (ISO) compressor station for injection operations;<sup>7</sup> (v) gas conditioning and dehydration facilities, (vi) piping to connect the injection/withdrawal wells; and (vii) piping to connect dehydration facilities with the water disposal well.

### **B. Storage Field Operation**

9. During the initial operations of the Totem Gas Storage Field, CIG will operate the facility at or below 2,080 pounds per square inch, absolute (psia), the original discovery bottom-hole pressure of the Totem Field. Subsequent to these initial operations, CIG will complete an analysis of the storage field's performance as well as confirm the reservoir's integrity. If the results of the analysis are satisfactory, CIG proposes to increase the pressure in the storage field up to a maximum bottom-hole pressure of 2,800 psia and a total gas-in-place of 10.7 Bcf.<sup>8</sup>

10. CIG anticipates commissioning the storage field in three phases over three years to reflect the increasing operational capabilities of the field. When CIG places the storage field into service in June 2009, the field is expected to have a maximum withdrawal capability of 150 MMcf per day with a working gas inventory of 6 Bcf for the 2009-2010 heating season. During the 2010-2011 heating season the field's maximum withdrawal capability is anticipated to be 200 MMcf per day with a working gas inventory of 6 Bcf. Finally, beginning with the 2011-2012 heating season and going forward, the maximum design withdrawal capability is anticipated to be 200 MMcf per day with a working gas capacity of 7 Bcf.

### **C. Open Season and Markets**

11. CIG conducted an open season for capacity in the Totem Storage Field from January 16, 2007, to February 16, 2007. Only one party, Public Service Company of Colorado (Public Service), submitted a binding bid for storage capacity. Subsequently, Public Service entered into a storage precedent agreement for 7 Bcf of storage capacity, the functional equivalent of the entire capacity of the storage field, for a term extending until April 30, 2040, at the maximum recourse rate.

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<sup>7</sup> As previously stated, CIG will install temporary compression facilities for the injection of base gas during the development phase.

<sup>8</sup> CIG asserts that its proposed maximum bottom-hole pressure is 1,550 psia lower than the reservoir's estimated bottom-hole, hydraulic fracture pressure of 4,350 psia. The hydraulic fracture pressure is the pressure at which the reservoir could lose storage integrity.

#### **D. Rates and Services**

12. CIG states that the total capital cost for Totem Gas Storage Field is approximately \$125 million, including the base gas to be injected into the Field. CIG asserts that the project will be an incrementally priced storage system with a primary function of addressing growing demand for natural gas storage service in the Denver, Colorado area, and a secondary function of serving as an important adjunct in developing wind power facilities in Colorado by providing fuel for backup power generation when the wind resources are unavailable. Further, CIG avers that Totem will be operated independently of CIG's existing Mainline Storage and will have its own operating parameters, reservoir inventory integrity limits, and injection and withdrawal curves. Therefore, CIG proposes to add three new rate schedules, two of which are specific to storage services, to its FERC Gas Tariff.

13. Specifically, CIG proposes to provide new incremental firm and interruptible storage services from the Totem Storage Field pursuant to new Rate Schedules FS-T and IS-T, respectively. In addition, CIG proposes a new one-hour notice transportation and storage balancing service under Rate Schedule TSB-T. CIG also proposes incremental fuel and lost and unaccounted gas charges. CIG explains that the Totem Storage Field will be directly connected to its High Plains facilities and thus services at the Totem Storage Field will be coordinated with the High Plains services. Shippers will access the Totem Storage Field using the High Plains services offered under Rate Schedules TF-HP and TI-HP.

14. CIG proposes to provide firm storage service from the Totem Storage Field pursuant to new Rate Schedule FS-T. The rights under this rate schedule include firm injection, withdrawal, and storage capacity. These rights are based upon reservoir performance levels detailed in new General Terms and Conditions (GT&C) Article 45. When operationally available, shippers holding firm capacity may request overrun service. CIG states that service from the Totem Storage Field is separate and apart from its existing storage services.<sup>9</sup> CIG states that it has developed firm rates for each phase of the Totem Storage Field, discussed later in this order, using the *Equitable* method.<sup>10</sup>

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<sup>9</sup> CIG operates four storage facilities (Ft. Morgan, Latigo, and Flank in Colorado, and Boehm in Kansas) as a storage pool concept known as CIG Mainline Storage. Service offered under existing Rate Schedule FS-1 is provided using the CIG Mainline Storage Facilities. CIG Mainline Storage is currently fully utilized for operational purposes and for Rate Schedules NNT-1 and NNT-2 shippers. The Totem Storage Field will not be a part of the storage pool. Service under Rate Schedules FS-1, NNT-1, and NNT-2 will not utilize the Totem Storage Field.

<sup>10</sup> See *Equitable Gas Co.*, 36 FERC ¶ 61,147(1986).

15. CIG will also provide interruptible service from the Totem Storage Field pursuant to new Rate Schedule IS-T. This interruptible storage rate will consist of a capacity charge and injection and withdrawal charges. In its February 14, 2008 response to staff's February 1, 2008 data request, CIG explains that the interruptible storage rate or monthly capacity charge is derived from the firm storage cost of service for each phase divided by the annual working inventory. The Rate Schedule IS-T injection and withdrawal charges are equal to the injection and withdrawal rates for service under Rate Schedule FS-T. Like the rates for firm storage service, CIG has developed interruptible rates for each phase of the project, as discussed later in this order.

16. CIG also proposes a new firm service under Rate Schedule TSB-T that combines the transportation and storage features offered under the recently-approved High Plains Rate Schedule TF-HP and Totem Rate Schedule FS-T with an additional one-hour notice feature. This new service provides shippers with transportation service to and from the shipper's Totem Storage Field storage inventory account. Shippers contracting for Rate Schedule TSB-T service may nominate in any hour of the gas day for transportation and storage balancing service and may change, in any hour, a previously scheduled quantity.

17. As with the other proposed rate schedules, CIG proposes rates for each phase of development of the Totem Storage Field. The reservation rate for service under Rate Schedule TSB-T consists of the sum of the storage deliverability rate and storage capacity rate<sup>11</sup> under Rate Schedule FS-T for the relevant development phase, and the firm transportation rate under High Plain Rate Schedule TF-HP. The Commodity Injection Rate for service under Rate Schedule TSB-T will be equal to the maximum injection rate under Rate Schedule FS-T for the relevant development phase. The Maximum Commodity Delivery Rate will be equal to the sum of the maximum withdrawal rate under Rate Schedule FS-T for the relevant development phase and the commodity rate under High Plains Rate Schedule TF-HP.

#### **E. Financing and Lease Agreement**

18. CIG states that WYCO Development LLC (WYCO), a Colorado entity jointly-owned by affiliates of Public Service and CIG,<sup>12</sup> will finance the project's estimated development costs of \$125 million. CIG explains that it will construct the facilities for WYCO, and effective the date the project facilities are ready to be placed in service,

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<sup>11</sup> The storage capacity rate is equal to the firm capacity rate under Rate Schedule FS-T multiplied by the annual storage capacity.

<sup>12</sup> WIC Holdings, Inc., a Delaware corporation and a direct subsidiary of CIG, and Xcel Energy Wyco, Inc., a Colorado corporation and an indirect affiliate of Public Service, are the current members of WYCO, both holding a fifty percent ownership interest in WYCO.

WYCO will lease the facilities to CIG pursuant to a lease agreement between WYCO and CIG (Lease Agreement). WYCO will lease the facilities to CIG at a monthly fee, under a monthly cost-of-service-based lease for an initial term of 30 years. Once the project facilities are leased to CIG, CIG states that it will have complete control over the facilities.<sup>13</sup>

19. Under the lease agreement, the monthly lease payments by CIG to WYCO will be based on cost-of-service factors, including depreciation expense and rate of return, as authorized by the Commission for recovery by CIG in the recourse rates applicable to the facilities. When these factors change in any subsequent CIG rate filing, the lease payment will change accordingly. CIG states that the lease payments are designed to replicate the impact to CIG and its ratepayers of direct ownership of the facilities.

20. Under Article III of the Lease Agreement, as revised, at the end of the lease term or at the termination of the lease for any other reason: (1) the lease will be renewed; (2) CIG will purchase the facilities from WYCO; or (3) WYCO will file a certificate application for authority to operate the facilities and CIG will file an abandonment application. CIG states that these revisions clarify that the leased facilities will remain in jurisdictional service under the Commission's authority after the expiration of the lease term.

## **II. Notice and Interventions**

21. Notice of CIG's application was published in the *Federal Register* on December 18, 2007 (72 Fed. Reg. 71,671). Public Service and Aquila, Inc. d/b/a Aquila Networks filed timely, unopposed motions to intervene. Timely, unopposed motions to intervene are granted by operation of Rule 214 of the Commission's regulations.<sup>14</sup> Public Service filed comments in support of the application stating that it needs the storage services to be provided by the Totem Storage Field to support its wind-powered generation in the Colorado Front Range. No protests were filed.

## **III. Discussion**

22. Since the application filed by CIG proposes facilities for the storage of natural gas in interstate commerce subject to the jurisdiction of the Commission, the proposals are subject to the requirements of subsections (c) and (e) of section 7 of the NGA.

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<sup>13</sup> CIG provided a copy of the form of Lease Agreement between CIG and WYCO in Exhibit I to the application. On December 18, 2007, CIG filed an updated form of Lease Agreement which revises Article III, the terms of which describe how the project facilities will be operated and/or transferred at the termination of the lease.

<sup>14</sup> 18 C.F.R. § 385.214 (2007).

**A. Application of the Certificate Policy Statement**

23. On September 15, 1999, the Commission issued a Policy Statement to provide guidance as to how the Commission evaluates proposals for certificating major new construction.<sup>15</sup> The Policy Statement established criteria for determining whether there is a need for a proposed project and whether the proposed project will serve the public interest. The Policy Statement explains that in deciding whether to authorize the construction of major new pipeline facilities, the Commission balances the public benefits against the potential adverse consequences. The Commission's goal is to appropriately consider the enhancement of competitive transportation alternatives, possibility of overbuilding, subsidization by existing customers, applicant's responsibility for unsubscribed capacity, avoidance of unnecessary disruptions of the environment, and the unneeded exercise of eminent domain in evaluating new pipeline construction.

24. Under this policy, the threshold requirement in establishing the public convenience and necessity for existing pipelines proposing expansion projects is that the pipeline must be prepared to financially support the project without relying on subsidization from existing customers. The next step is to determine whether the applicant has made efforts to eliminate or minimize any adverse effect the project might have on the applicant's existing customers, existing pipelines in the market and their captive customers, or landowners and communities affected by the route of the new pipeline. If residual adverse effects on these interest groups are identified after efforts have been made to minimize them, the Commission will evaluate the project by balancing the evidence of public benefits to be achieved against the residual adverse effects. This is essentially an economic test. Only when the benefits outweigh the adverse effects on economic interests will the Commission proceed to complete the environmental analysis where other interests are considered.

25. CIG's proposal satisfies the threshold requirement that the pipeline must be prepared to financially support the project without relying on subsidization from its existing customers. As explained below, we are approving CIG's proposal to recover the costs of the expansion project through separate incremental rates for the proposed services created by the construction of the Totem Storage Field. Thus, existing customers will not bear any of the costs of the project nor will they subsidize the Totem Storage Field Project.

26. The project will not adversely affect CIG's existing customers, or other pipelines and their customers. The proposed facilities are designed to provide incremental service without degradation of service to CIG's existing firm customers. In addition, CIG's

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<sup>15</sup> *Certification of New Interstate Natural Gas Pipeline Facilities*, 88 FERC ¶ 61,227 (1999); *clarified*, 90 FERC ¶ 61,128 (2000); *further clarified*, 92 FERC ¶ 61,094 (2000) (Policy Statement).

project is designed to meet new electric generation demand and there is no evidence that service on other pipelines will be displaced or bypassed. As explained below, we also find that CIG's proposed services are in accord with Commission policy. Thus, we conclude that CIG's proposal will not have adverse impacts on existing pipelines or their customers.

27. CIG has designed the Totem Storage Field project to minimize the impact on landowners and the environment. CIG states that much of the land where the project will be developed has been previously disturbed as a result of existing oil and gas production activities. CIG has received permission from all of the affected landowners to conduct biological, archaeological, and center line surveys for the project and is in active negotiations with landowners for acquisition of the needed surface and subsurface rights to construct the project. At the time of the filing of the application, CIG reported that it had acquired or had under contract 90 percent of the primary subsurface rights for the project.

28. CIG has entered into a long-term precedent agreement for 100 percent of the design storage capacity of the project. CIG's proposal will provide needed storage infrastructure and service for Public Service to support its wind project developments in the area. Based on the benefits that CIG's proposal will provide to the market and the minimal adverse effects on existing customers, other pipelines, landowners, or communities, we find that approval of the Totem Storage Field project is required by the public convenience and necessity.

#### **B. Lease Agreement with WYCO**

29. As discussed above, CIG proposes that WYCO finance and own the Totem Storage Field. CIG will construct the facilities and WYCO shall lease the facilities to CIG effective upon the date the facilities are ready to be placed in service. For the following reasons, we find that CIG's request to lease capacity from WYCO will be required by the public convenience and necessity and will be granted.

30. The Commission views lease arrangements differently from transportation services under rate contracts. The Commission views a lease of interstate pipeline capacity as an acquisition of a property interest that the lessee acquires in the capacity of the lessor's pipeline. To enter into a lease, the lessee generally needs to be a natural gas company under the NGA and needs section 7(c) certificate authorization to acquire the capacity and operate the facilities. Once acquired, the lessee in essence owns that capacity, and the capacity is subject to the lessee's tariff. The leased capacity is allocated for use by the lessee's customers. The lessor, while it may, in some instances, remain the operator of the pipeline system, no longer has any rights to use the leased capacity. As a

passive owner, WYCO does not require a certificate.<sup>16</sup> The Commission's practice has been to approve a lease if it finds that: (1) there are benefits for using a lease arrangement; (2) the charges for service under the lease are less than, or equal to, the charges for comparable service on the same facilities; and (3) the lease arrangement does not adversely affect existing customers.

31. We find that approval of the lease agreement is consistent with the cited Commission policy. For the term of the Lease Agreement, CIG will have operational control of the facilities and will provide natural gas storage service to Public Service, as well as to potential future customers, consistent with the terms of its proposed rate schedules and tariff. No current storage service will be affected by the proposal. Under the lease agreement, CIG's monthly lease payment is designed to replicate the impact on the cost-of-service that would result from the direct ownership of the facilities by CIG. Thus, there is no cost impact to CIG's customers resulting from CIG leasing these facilities rather than owning these facilities.

32. Upon termination of the lease at the end of its term or otherwise, CIG must continue to provide jurisdictional service from the Totem Storage Field until it requests and is authorized to abandon the facilities under NGA section 7(b). Similarly, if WYCO elects to operate the facilities, it must file for and receive certificate authority under NGA section 7(c).

### **C. Proposed Initial Recourse Rates**

33. CIG's proposed incremental firm storage rates are derived using an annual cost of service of \$24,036,147 for Phase 1, \$24,985,279 for Phase 2, and \$24,337,538 for Phase 3. CIG has designed its firm FS-T storage rates by classifying all costs as either fixed or variable.<sup>17</sup> With regard to the fixed costs of \$23,125,177 for Phase 1, CIG assigns one-half to the capacity component and one-half to the deliverability component. The capacity component of \$11,562,589 (*i.e.*, one-half of \$23,125,177) is then divided by the Maximum Annual Capacity of 6,000,000 Dth to yield a monthly charge of \$0.1606 per Dth. The deliverability component is derived by taking the allocated fixed costs divided by the Maximum Daily Withdrawal Quantity to yield the deliverability rate.

34. Variable costs, which are assigned wholly to the injection/withdrawal charges and billed on the customers' actual use of the service, are calculated by dividing the annual variable cost (*e.g.*, \$910,970 for Phase 1) by the maximum injection/withdrawal

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<sup>16</sup> See, *e.g.*, *Northwest Pipeline Corp.*, 121 FERC ¶ 61,158, at P 11 (2007); *Dome Pipeline Corp.*, 22 FERC ¶ 61,277 (1983).

<sup>17</sup> CIG states that variable costs comprise 3.79 percent of the total cost of service (*i.e.*, \$910,970 for Phase 1, \$946,942 for Phase 2, and \$922,393 for Phase 3).

capacity.<sup>18</sup> CIG uses this rate for both firm and interruptible injections and withdrawals. CIG's FS-T rates are provided below:

<b><u>Monthly Firm Rates (per Dth)</u></b>	Deliverability	Capacity	Injection/ Withdrawal
Phase 1 (Assumes 150,000 MMcf per day Deliverability and 6 Bcf of Maximum Annual Capacity)	\$6.4237	\$0.1606	\$0.0759
Phase 2 (Assumes 200,000 MMcf per day of Deliverability and 6 Bcf of Maximum Annual Capacity)	\$5.0080	\$0.1669	\$0.0789
Phase 3 (Assumes 200,000 MMcf per day of Deliverability and 7 Bcf of Maximum Annual Capacity)	\$4.8782	\$0.1394	\$0.0659

35. CIG's interruptible IS-T rate implements a base Interruptible Storage Rate, equivalent to a monthly capacity charge, and is calculated by dividing the annual fixed costs<sup>19</sup> by the Maximum Annual Capacity. The IS-T rates are applied monthly to the average daily balance of gas in storage for the shipper's account during the month. The IS-T Rate Schedule also implements an injection and withdrawal charge, each identical to the injection and withdrawal charge for firm storage service in Rate Schedule FS-T. The proposed IS-T rates are presented below:

<b><u>Monthly Interruptible Rates (per Dth)</u></b>	Capacity	Injection/Withdrawal
Phase 1 (Assumes 6 Bcf of Maximum Annual Capacity)	\$0.3212	\$0.0759
Phase 2 (Assumes 6 Bcf of Maximum Annual Capacity)	\$0.3338	\$0.0789

<sup>18</sup> CIG presents the maximum injection/withdrawal capacity for Phase 1 to be 12,000,000 Dth, 12,000,000 Dth for Phase 2, and 14,000,000 Dth for Phase 3.

<sup>19</sup> CIG presents annual fixed costs of \$23,125,177 for Phase 1, \$24,038,337 for Phase 2, and \$23,415,145 for Phase 3.

Phase 3 (Assumes 7 Bcf of Maximum Annual Capacity)	\$0.2788	\$0.0659
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36. In developing the proposed cost of service rates for the new storage facilities, CIG has utilized the pre-tax return approved by the Commission in Docket No. RP06-397-000, CIG's last general rate case.<sup>20</sup> CIG proposes to depreciate its new gas storage plant using a 1.95 percent rate based upon CIG's settled composite storage depreciation rate, which was also approved by the Commission in the Docket No. RP06-397-000 proceeding. CIG states that this proposed depreciation rate implies an effective 51.2-year life for the Totem Storage facilities.

37. CIG presents a lost and unaccounted for (L&U) charge of 0.15 percent, and states that this charge is consistent with treatment accorded High Plains Pipeline. Further, CIG states that in the High Plains application, CIG relied on historical experience to set its initial estimate of L&U retention, which is at the low end of levels experienced by pipelines.<sup>21</sup> Finally, CIG states that the proposed Totem Project L&U percentage will be adjusted periodically to reflect actual experience, pursuant to CIG's FERC Gas Tariff.

38. CIG proposes a fuel charge of 1.05 percent for the Totem Storage project. CIG states that two natural gas-fired engines will be installed at the Totem Storage facilities, and the fuel consumption is based on the manufacturer's fuel rate at 100 percent load at 6736 Btu/hp-hr. The calculated fuel consumption is then based on the calculated fuel rate times the required horsepower, resulting in a fuel rate of 1.05 percent.<sup>22</sup>

39. The Commission has reviewed CIG's proposed cost of service, allocation, and rate design used to develop its initial recourse rates. Specifically, use of the previously approved rate of return remains reasonable and a depreciation rate based on a 51.2-year life is appropriate for the natural gas storage facilities that CIG proposes in this filing. The proposed rate for L&U and the proposed fuel rate are also reasonable. We conclude that the proposed rates for the Totem Storage facilities reasonably reflect current Commission policy and are hereby approved.

40. CIG has not proposed to allocate costs or credit revenue for IS-T interruptible services. The Commission's policy regarding interruptible services requires either a 100

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<sup>20</sup> *Colorado Interstate Gas Co.*, 116 FERC ¶ 61,126 (2006).

<sup>21</sup> Responses to OEP Data Request, February 1, 2008, at Question 6 ("It is generally accepted that 0.15% to 0.25% L&U experience is the typical low-end range experienced on interstate pipelines.").

<sup>22</sup> *Id.* at Question 7.

percent credit of the interruptible revenues, net of variable costs, to firm and interruptible customers, or an allocation of costs and volumes to these services.<sup>23</sup> Accordingly, we direct CIG to revise its tariff to either provide for IS-T revenue crediting or to revise its rates and allocate costs to the IS-T interruptible services.

#### **D. Engineering**

41. Commission staff completed an engineering analysis of the facility proposed for natural gas storage, including the design capacity of the proposed facility. Based on this analysis, we conclude that the facilities are properly designed to provide 10.7 Bcf of total storage capacity (7 Bcf working gas and 3.7 Bcf cushion gas). Further, we conclude that the natural gas facilities proposed by CIG are properly designed to withdraw up to 200 MMcf per day. The certificate authority issued herein is conditioned upon CIG following the engineering terms and conditions provided in Appendix B to this order.

#### **E. Environmental Analysis**

42. On February 28, 2007, CIG filed a request to implement the Commission's Pre-filing Process for the project. On March 15, 2007, the Commission granted CIG's Pre-Filing request and issued a Pre-Filing docket number PF07-6-000. In addition, CIG hosted an Open House on April 17, 2007 in Bennett, Colorado, to inform stakeholders about the project and provide an opportunity for the stakeholders to ask project related questions and express comments and concerns.

43. On April 30, 2007, we issued a *Notice Of Intent To Prepare an Environmental Assessment For the Proposed CIG Totem Gas Storage Field Project and Request for Comments on Environmental Issues* (NOI). The NOI was mailed to interested parties including federal, state, and local officials; agency representatives; environmental and public interest groups; Native American tribes; local libraries and newspapers; and affected property owners. The NOI comment period ended on May 30, 2007. In response to the NOI, we received comments from the Colorado Oil and Gas Conservation Commission (COGCC); The U.S. Army Corps of Engineers (USACOE); and the U.S. Fish and Wildlife Service (USFWS).

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<sup>23</sup> *Alternatives to Traditional Cost-of-Service Ratemaking for Natural Gas Pipelines and Regulation of Negotiated Transportation Services of Natural Gas Pipelines (Alternative Rate Policy Statement)*, 74 FERC ¶ 61,076, at 61,241 (1996), *reh'g and clarification denied*, 75 FERC ¶ 61,024 (1996), *reh'g denied*, 75 FERC ¶ 61,066 (1996); *petition for review denied, Burlington Resources Oil & Gas Co. v. FERC*, 172 F.3d (D.C. Cir. 1998); *Natural Gas Pipeline Negotiated Rate Policies and Practices, modification of negotiated rate policy*, 104 FERC ¶ 61,134 (2003), *order on reh'g and clarification*, 114 FERC ¶ 61,042 (2006). *See also NorAm Gas Transmission Co.*, 77 FERC ¶ 61,011 (1996).

44. The COGCC had concerns about protection of fresh water aquifers and casing depth requirements for existing and new boreholes; noise and air quality regulations; public safety, and regulations governing water resources. The USACOE provided general comments about permit requirements under Section 404 of the Clean Water Act. The USFWS had concerns about threatened and endangered species and their habitats. Our staff addressed all substantive comments in the environmental assessment (EA).

45. Our staff prepared an EA for CIG's proposal. The EA addresses geology and soils; water resources and wetlands; vegetation, wildlife, and fisheries; endangered and threatened species; land use; cultural resources; air quality and noise; and alternatives. On April 7, 2008, the EA was placed in the public record.

46. Based on the discussion in the EA, we conclude that if constructed, replaced, abandoned, or operated in accordance with CIG's application and supplements, and the terms and conditions provided in Appendix A to this order, approval of this proposal would not constitute a major federal action significantly affecting the quality of the human environment.

47. Any state or local permits issued with respect to the jurisdictional facilities authorized herein must be consistent with the conditions of this certificate. The Commission encourages cooperation between interstate pipelines and local authorities. However, this does not mean that state and local agencies, through application of state or local laws, may prohibit or unreasonably delay the construction or operation of facilities approved by this Commission.<sup>24</sup>

48. The Commission on its own motion, received and made a part of the record all evidence, including the application (s), as supplemented, and exhibits thereto, submitted in this proceeding and upon consideration of the record,

The Commission orders:

(A) A certificate of public convenience and necessity is issued in Docket No. CP08-30-000 authorizing CIG to construct and operate the Totem Storage Field, and lease capacity from WYCO, as described more fully in the order and in the application.

(B) The certificate authority granted in Ordering Paragraph (A) shall be conditioned on the following:

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<sup>24</sup>See, e.g., *Schneidewind v. ANR Pipeline Co.*, 485 U.S. 293 (1988); *National Fuel Gas Supply v. Public Service Comm'n*, 894 F.2d 571 (2d Cir. 1990); and *Iroquois Gas Transmission System, L.P.*, 52 FERC ¶ 61,091 (1990) and 59 FERC ¶ 61,094 (1992).

- (1) CIG's completion of the authorized construction of the proposed facilities and making them available for service within 3 years of the issuance of this order pursuant to section 157.20(b) of the Commission's regulations.
- (2) CIG's compliance with all applicable Commission regulations under the NGA including but not limited to, Parts 154 and 284, and paragraphs (a), (c), (e), and (f) of section 157.20 of the regulations;
- (3) CIG's compliance with the environmental conditions listed in Appendix A to this order; and
- (4) CIG's compliance with the engineering conditions listed in Appendix B to this order.

(C) CIG shall execute a firm service agreement equal to the level of service represented in its precedent agreement prior to commencing construction of the Totem Storage Field.

(D) CIG shall notify the Commission's environmental staff by telephone, email, or facsimile of any environmental noncompliance identified by other federal, state, or local agencies on the same day that such agency notifies CIG. CIG shall file written confirmation of such notification with the Secretary of the Commission within 24 hours.

(E) CIG's proposed initial rates for services for the Totem Storage Field are approved. CIG must maintain its records for the expansion project in a manner to comply with the requirements of section 154.309 of the Commission's regulations.

(F) CIG must file, no less than 30 days, or more than 60 days, prior to commencing service, actual tariff sheets consistent with its pro forma tariff sheets, as modified in this order.

By the Commission.

( S E A L )

Kimberly D. Bose,  
Secretary.

**APPENDIX A**

1. CIG shall follow the construction procedures and mitigation measures described in its application and supplements (including responses to staff data requests) and as identified in the EA unless modified by this Order. CIG must:
  - a. request any modification to these procedures, measures, or conditions in a filing with the Secretary of the Commission (Secretary);
  - b. justify each modification relative to site-specific conditions;
  - c. explain how that modification provides an equal or greater level of environmental protection than the original measure; and
  - d. receive approval in writing from the Director of the OEP **before using that modification.**
  
2. The Director of OEP has delegation authority to take whatever steps are necessary to ensure the protection of all environmental resources during construction and operation of the project. This authority shall allow:
  - a. the modification of conditions of this Order; and
  - b. the design and implementation of any additional measures deemed necessary (including stop work authority) to assure continued compliance with the intent of the environmental conditions as well as the avoidance or mitigation of adverse environmental impact resulting from project construction and operation.
  
3. **Prior to any construction**, CIG shall file an affirmative statement with the Secretary, certified by a senior company official, that all company personnel, environmental inspectors, and contractor personnel would be informed of the environmental inspector's authority and have been or would be trained on the implementation of the environmental mitigation measures appropriate to their jobs before becoming involved with construction and restoration activities.
  
4. The authorized facility locations shall be as shown in the EA, as supplemented by filed alignment sheets. **As soon as they are available, and before the start of construction**, CIG shall file with the Secretary any revised detailed survey alignment maps/sheets at a scale not smaller than 1:6,000 with station positions for all facilities approved by this Order. All requests for modifications of environmental conditions of this Order or site-specific clearances must be written and must reference locations designated on these alignment maps/sheets.

CIG's exercise of eminent domain authority granted under Natural Gas Act (NGA) section 7(h) in any condemnation proceedings related to this Order must be consistent with these authorized facilities and locations. CIG's right of eminent

domain granted under NGA section 7(h) does not authorize it to increase the size of its natural gas pipeline to accommodate future needs or to acquire a right-of-way for a pipeline to transport a commodity other than natural gas.

5. CIG shall file with the Secretary detailed alignment maps/sheets and aerial photographs at a scale not smaller than 1:6,000 identifying all route realignments or facility relocations, and staging areas, pipe storage yards, new access roads, and other areas that would be used or disturbed and have not been previously identified in filings with the Secretary. Approval for each of these areas must be explicitly requested in writing. For each area, the request must include a description of the existing land use/cover type, and documentation of landowner approval, whether any cultural resources or federally listed threatened or endangered species would be affected, and whether any other environmentally sensitive areas are within or abutting the area. All areas shall be clearly identified on the maps/sheets/aerial photographs. Each area must be approved in writing by the Director of OEP **before construction in or near that area.**

This requirement does not apply to (route variations required herein or) extra workspace allowed by the Upland Erosion Control, Revegetation, and Maintenance Plan, minor field realignments per landowner needs and requirements that do not affect other landowners or sensitive environmental areas such as wetlands.

- a. Examples of alterations requiring approval include all route realignments and facility location changes resulting from:
  - (1) implementation of cultural resources mitigation measures;
  - (2) implementation of endangered, threatened, or special concern species mitigation measures;
  - (3) recommendations by state regulatory authorities; and
  - (4) agreements with individual landowners that affect other landowners or could affect sensitive environmental areas.
6. **Within 60 days of the acceptance of this certificate and before construction begins**, CIG shall file an initial Implementation Plan with the Secretary for review and written approval by the Director of OEP describing how CIG will implement the mitigation measures required by this Order. CIG must file revisions to the plan as schedules change. The plan shall identify:

- a. how CIG would incorporate these requirements into the contract bid documents, construction contracts (especially penalty clauses and specifications), and construction drawings so that the mitigation required at each site is clear to onsite construction and inspection personnel;
  - b. the number of environmental inspectors assigned per spread, and how the company would ensure that sufficient personnel are available to implement the environmental mitigation;
  - c. company personnel, including environmental inspectors and contractors, who would receive copies of the appropriate material;
  - d. the training and instructions CIG would give to all personnel involved with construction and restoration (initial and refresher training as the project progresses and personnel change); with the opportunity for OEP staff to participate in the training session(s);
  - e. the company personnel (if known) and specific portion of CIG's organization having responsibility for compliance;
  - f. the procedures (including use of contract penalties) CIG would follow if noncompliance occurs; and
  - g. for each discrete facility, a Gantt or PERT chart (or similar project scheduling diagram) and dates for:
    - (1) the completion of all required surveys and reports;
    - (2) the mitigation training of onsite personnel;
    - (3) the start of construction; and
    - (4) the start and completion of restoration.
7. CIG shall employ at least one (or as may be established by the Director of OEP) environmental inspector for the project. The environmental inspector(s) shall be:
- a. responsible for monitoring and ensuring compliance with all mitigation measures required by this Order and other grants, permits, certificates, or other authorizing documents;
  - b. responsible for evaluating the construction contractor's implementation of the environmental mitigation measures required in the contract (see condition 6 above) and any other authorizing document;
  - c. empowered to order correction of acts that violate the environmental conditions of this Order, and any other authorizing document;
  - d. responsible for documenting compliance with the environmental conditions of this Order, as well as any environmental conditions/permit requirements imposed by other federal, state, or local agencies; and
  - e. responsible for maintaining status reports.

8. CIG shall file updated status reports prepared by the head environmental inspector with the Secretary on a biweekly basis **until all construction and restoration activities are complete**. On request, these status reports would also be provided to other federal and state agencies with permitting responsibilities. Status reports shall include:
  - a. the current construction status of the project, work planned for the following reporting period, and any schedule changes for stream crossings or work in other environmentally sensitive areas;
  - b. a listing of all problems encountered and each instance of noncompliance observed by the environmental inspector(s) during the reporting period (both for the conditions imposed by the Commission and any environmental conditions/permit requirements imposed by other federal, state, or local agencies);
  - c. corrective actions implemented in response to all instances of noncompliance, and their cost;
  - d. the effectiveness of all corrective actions implemented;
  - e. a description of any landowner/resident complaints which may relate to compliance with the requirements of this Order, and the measures taken to satisfy their concerns; and
  - f. copies of any correspondence received by CIG from other federal, state or local permitting agencies concerning instances of noncompliance, and CIG's response.
9. CIG must receive written authorization from the Director of the OEP **before commencing service from the project**. Such authorization will only be granted following a determination that rehabilitation and restoration of the ROW and other areas affected by the project are proceeding satisfactorily.
10. **Within 30 days of placing the certificated facilities in service**, CIG shall file an affirmative statement with the Secretary, certified by a senior company official:
  - a. that the facilities have been constructed in compliance with all applicable conditions, and that continuing activities would be consistent with all applicable conditions; and
  - b. identifying which of the certificate conditions CIG has complied with or would comply with. This statement shall also identify any areas affected by the project where compliance measures were not properly implemented, if not previously identified in filed status reports, and the reason for noncompliance.
11. **Within 30 days of placing the facilities in service**, CIG shall file a report with the Secretary discussing whether any complaints were received concerning well yield

or water quality and how each was resolved for water wells within 150 feet of the project area. **Within 1 year of completion of construction**, CIG shall file a report with the Secretary identifying all potable water supply systems damaged by construction and how they were repaired.

12. CIG shall not begin construction activities **until**:
  - a. the staff receives a concurrence letter or comments from the USFWS regarding the proposed project; and
  - b. CIG has received written notification from the Director of OEP that construction or use of mitigation may begin.
13. **Prior to the beginning of construction activities**, CIG shall include in its environmental training program for all personnel, a species awareness training session for all federal and state-managed ground-dwelling species that potentially occur at the proposed project area.
14. **Prior to construction**, CIG shall file a drilling noise analysis for each well drilling site with noise sensitive areas (NSAs) within ½-mile including the following:
  - a. identify all NSAs;
  - b. the estimated number of days of drilling required for each location, and whether drilling would be done 24 hours per day;
  - c. a topographic map showing the distance and direction of the nearest NSAs;
  - d. the existing day-night average noise (Ldn) at the nearest NSAs and the proposed noise impacts at the NSAs during drilling activities; and
  - e. a description of any noise mitigation (or propose alternate measures such as temporary relocation, compensation, etc.) which would be implemented during drilling activity to reduce noise impacts at the NSAs below 55 dBA Ldn, or 10 dBA over background if ambient levels are above 55 dBA Ldn.
15. CIG shall make all reasonable efforts to assure its predicted noise levels from the proposed modifications at the Totem Compressor Station are not exceeded at all four nearby NSAs and file noise surveys showing this with the Secretary **no later than 60 days after placing the compressor station in service**. However, if the noise attributable to the operation of the compressor station at full load exceeds an  $L_{dn}$  of 55 dBA at any nearby NSAs, CIG should file a report on what changes are needed and should install additional noise controls to meet the level **within 1 year of the in-service date**. CIG should confirm compliance with this requirement by filing a second noise survey with the Secretary **no later than 60 days after it installs the additional noise controls**.

**APPENDIX B**

1. Maximum inventory of natural gas stored in the CIG Totem Storage Field shall not exceed the certificated levels of 10.7 Bcf at 14.73 psia and 60 degrees Fahrenheit, and the maximum shut-in bottom hole storage pressure shall not exceed 2,800 psi without prior authorization of the Commission.
2. The Totem Storage Field shall be operated in such manner as to prevent/minimize gas loss or migration.
3. CIG shall conduct an annual inventory verification study on each cavern, and file results with the Commission.
4. CIG shall submit semiannual reports (to coincide with the termination of the injection and withdrawal cycles) containing the following information (volumes shall be stated at 14.73 psia and 60 degrees Fahrenheit and pressures shall be stated in psia):
  - (1) The daily volumes of natural gas injected into and withdrawn from the storage reservoir.
  - (2) The volume of natural gas in the reservoirs at the end of the reporting period.
  - (3) The maximum daily injection and withdrawal rates experienced during the reporting period, average working pressure on such maximum days, taken at a central measuring point where the total volume injected or withdrawn is measured.
  - (4) Results of any tracer program by which the leakage of injected gas may be determined. If leakage of gas exists, the report should show the estimated total volume of gas leakage, the volume of recycled gas, and the estimated remaining inventory of gas in the reservoir at the end of the reporting period.
  - (5) Any surveys of pressures in gas wells, and the results of back-pressure tests and inventory verification studies conducted during the reporting period.
  - (6) The latest revised structure contour maps showing location of the wells and the location of the gas-water contact if one exists. These maps need not be filed if there is no material change from the maps previously filed.

- (7) For the reporting period, a summary that includes the below ground surface depth and casing settings of wells drilled, worked over, or recompleted. Additionally, summarize results of reservoir characteristics from any logs or cores taken in each well.
- (8) Discussion of current operating problems and conclusions.
- (9) Such other data or reports which may aid the Commission in the evaluation of the storage project.

CIG shall continue to file these reports semiannually until the storage inventory volume and pressure have reached or closely approximate the maximum permitted in this order. Thereafter, the reports shall continue on a semiannual basis for a period of one year.