

131 FERC ¶ 61,154  
UNITED STATES OF AMERICA  
FEDERAL ENERGY REGULATORY COMMISSION

Before Commissioners: Jon Wellinghoff, Chairman;  
Marc Spitzer, Philip D. Moeller,  
and John R. Norris.

Southern Star Central Gas Pipeline, Inc.

Docket No. CP10-2-000

ORDER ISSUING CERTIFICATE

(Issued May 20, 2010)

1. On October 9, 2009, Southern Star Central Gas Pipeline, Inc. (Southern Star) filed an application under section 7(c) of the Natural Gas Act (NGA) to construct certain facilities in order to expand storage capabilities at its Elk City storage field in Kansas (Elk City Project). Southern Star also seeks authorization pursuant to NGA section 4(f) to provide storage service through the expanded facilities at market-based rates. As discussed below, this order grants the requested certificate authorization, as well as Southern Star's request for market-based rate authority, subject to conditions.

**I. Background**

2. Southern Star is a natural gas company subject to the Commission's jurisdiction and transports and stores natural gas in interstate commerce on behalf of various customers. Southern Star operates seven storage fields in Kansas and one in Oklahoma.

3. The Elk City storage field is located in Elk, Chautauqua, and Montgomery Counties, Kansas.<sup>1</sup> Currently, the storage field contains approximately 60

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<sup>1</sup> The Elk City storage field was originally a natural gas production reservoir depleted in the early 1920s and converted to gas storage in 1945 by Union Gas System, Inc. By order issued September 24, 1959, Cities Service Gas Company (a predecessor to Southern Star) was authorized to acquire, own, develop, and operate the storage field, *Cities Service Co.*, 20 FPC 390 (1958). Further development of the Elk City field was authorized in *Williams Natural Gas Co.*, 75 FERC ¶ 61,159 (1996), 77 FERC ¶ 61,150 (1996) and *Williams Natural Gas Pipelines Central, Inc.*, 83 FERC ¶ 61,120 (1998); 85 FERC ¶ 61,184 (1998).

injection/withdrawal wells and seven observation wells that access the Burgess Sandstone, a storage formation, at an average depth of approximately 1,350 feet. As currently certificated, the Elk City field has a maximum storage capacity of 30.7 billion cubic feet (Bcf), comprising 7.8 Bcf of working gas and 22.9 Bcf of base gas. The certificated maximum shut-in wellhead pressure of the field is 595 pounds per square inch gauge (psig), and the maximum certificated withdrawal capacity is 229,000 thousand cubic feet (Mcf) per day.

## **II. Proposal**

### **A. Facilities and Operation**

4. Southern Star proposes to increase the total and working gas storage capacity and the maximum deliverability of the Elk City field. Southern Star states that a gas storage study performed by Netherland, Sewell & Associates, Inc. (NSAI Study) concludes that the total capacity of the Elk City storage field is 33.3 Bcf, which is 2.6 Bcf greater than the currently-certificated maximum capacity. Southern Star proposes to offer the entire additional 2.6 Bcf as working gas capacity. In addition, Southern Star proposes to convert 1.4 Bcf of base gas to working gas.<sup>2</sup> In total, Southern Star's proposal increases the total capacity of the Elk City storage field by 2.6 Bcf, increases the working gas capacity by 4.0 Bcf, and decreases the base gas capacity by 1.4 Bcf. After completion of the project, the Elk City storage field will have a total capacity of 33.3 Bcf, comprising 11.8 Bcf of working gas and 21.5 Bcf of base gas. In addition, Southern Star proposes to increase the maximum daily withdrawal capacity of the Elk City field from 229,000 Mcf/day to 269,000 Mcf/day.

5. In order to increase the maximum daily withdrawal capacity, Southern Star seeks authority to install additional compression at a new site adjacent to the east boundary of the existing Elk City dehydration plant. Specifically, Southern Star proposes to install one 6,283 horsepower (hp) compressor unit and appurtenant facilities.

6. Southern Star requests authorization to revise its current operational plan to reflect the expanded service and recommendations of the NSAI Study.<sup>3</sup> The revised operational plan reflects the requested total capacity, working gas capacity, base gas capacity, and maximum withdrawal rate indicated above. The revised operational plan also removes

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<sup>2</sup> Southern Star states that it plans on selling the base gas prior to the time the extra space will be needed for the increased injections for expansion customers.

<sup>3</sup> The operational plan for the Elk City storage field was established in *Williams Gas Pipelines Central, Inc.*, 84 FERC ¶ 61,176 (1998).

the current pattern of injections and withdrawals to allow Southern Star the flexibility to operate the field as recommended by the NSAI Study.

7. Lastly, the NSAI Study indicates that the Elk City storage field contains 1.9 Bcf more gas in inventory than records previously indicated.<sup>4</sup> The additional 1.9 Bcf is the result of a change in methodology for calculating gas inventory verification and storage losses. Specifically, Southern Star proposes to use a 10-year rolling average Apparent Pore Volume (APV) calculation, rather than a full life of the field average APV. Southern Star states that the 1.9 Bcf of additional storage gas must be removed prior to offering the proposed storage services. As a result, Southern Star proposes to credit to the existing firm storage customers, as of April 1, 2011, their pro rata share of the 1.9 Bcf based on each customer's firm Maximum Storage Quantity (MSQ) compared to the total firm MSQ. Southern Star also requests authorization to provide 0.7 Bcf of incremental storage services at its existing Commission approved rate from the date of this order until service utilizing the new storage capacity is placed into service.<sup>5</sup>

#### **B. Open Season and Request for Market-based Rates**

8. Southern Star conducted three separate binding open seasons for the Elk City Project,<sup>6</sup> stating that it was seeking market-based rates under NGA section 4(f) and establishing a cost-based reserve price. Notices of the open seasons were posted on Southern Star's electronic bulletin board and all customers were permitted to bid on the capacity on a non-discriminatory and non-preferred basis. During the first open season, Southern Star proposed to construct facilities expanding the Elk City field by 5 Bcf of working gas and 50,000 Mcf per day of daily deliverability, with conforming bids for 100-day service, at a rate equal to or greater than the cost-based reserve price of \$1.35 per Dth<sup>7</sup> and a minimum term of ten years. Southern Star received one conforming bid for

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<sup>4</sup> The additional 1.9 Bcf occupies a portion of the 2.6 Bcf of additional capacity discussed above.

<sup>5</sup> The 0.7 Bcf reflects the total increase in the capacity of the field (2.6 Bcf) less the 1.9 Bcf of gas currently occupying this capacity.

<sup>6</sup> The three open seasons were conducted from: (1) January 12, 2009 to February 20, 2009; (2) May 12, 2009 to June 2, 2009; and (3) June 29, 2009 to July 14, 2009.

<sup>7</sup> Southern Star designed the cost-based reserve rates for the open season postings based upon the construction costs to provide the proposed service expansion. Southern Star indicates that the cost-of-service methodology was based on prior Commission approved cost-of-service determinates. For example, Southern Star indicates that the proposed depreciation rates and return on rate base were based upon the settlement of its  
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300,000 Mcf and five bids at deeply discounted rates rendering the bids non-binding. Based on the results of the initial open season, shipper feedback, and the inability to obtain long-term 10-year contracts, Southern Star conducted a second open season for 4 Bcf of storage, 40,000 Mcf per day of daily deliverability and 100-day service, with a rate equal to a cost-based reserve price of \$1.14 per Mcf and a minimum term of 5 years. Southern Star received one conforming bid during the second open season for 1.3 Bcf of gas and 13,000 Dth per day of daily deliverability and additional non-conforming bids for the remaining 2.7 Bcf of storage capacity. Southern Star then conducted a third open season offering the remaining unsubscribed storage capacity of 2.7 Bcf with a daily deliverability of 27,000 Dth per day. Southern Star received an additional conforming bid during the third open season. The three open seasons resulted in four conforming bids for the 4.3 Bcf of storage capacity and 40,000 Mcf of daily deliverability for a minimum of a five-year term at the cost-based reserve rate.

9. Southern Star alleges that it faces significant risk in constructing the expanded storage capacity and that without market-based rate authorization, the discounted rates would not allow it to recover its cost of service. Southern Star contends it bears increased risk because customers are only willing to enter into short-term contracts of five years, rather than the longer term 10-year minimum originally proposed. Southern Star argues that utilizing market-based rates will provide the opportunity to earn a fair return on short-term contracts now, and in the future, as market conditions may change. Further, Southern Star argues that it faces significant risk in operating the additional Elk City storage capacity, asserting that if the field does not perform as the models have predicted, Southern Star will be required to spend additional capital to ensure it can sustain the additional deliverability. Southern Star indicates that without market-based rates it would not be willing to accept the associated financial risk and proceed with the Elk City Project.

### **III. Procedural Matters**

10. Notice of Southern Star's application was published in the *Federal Register* on October 26, 2009 (74 Fed. Reg. 54,980). Tenaska Gas Storage (TGS); Atmos Energy Corporation; Missouri Gas Energy; Black Hills Corporation; Niska Gas Storage, LLC; and Kansas Gas Service filed timely, unopposed motions to intervene. The timely,

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most recent section 4 rate case in Docket No. RP08-350-000. *See Southern Star Central Gas Pipeline, Inc.*, 127 FERC ¶ 61,210 (2009). Further, Southern Star designed the cost-based reserve rates in the following manner: (1) allocating Administrative and General Expenses utilizing the Kansas-Nebraska formula, the same method employed in Docket No. RP08-350-000; (2) basing property taxes and insurance on Southern Star's historical experience of 1.5 percent; and (3) calculating Operation and Maintenance expenses based on Southern Star's historical experience at compressor stations.

unopposed motions to intervene are granted by operation of Rule 214 of the Commission's regulations.<sup>8</sup>

11. TGS filed comments in support of the proposed project. Kansas Gas Service commented raising questions concerning Southern Star's proposal, and those concerns are addressed below. The Kansas Corporation Commission (KCC) and the Missouri Public Service Commission (MoPSC) each filed a notice of intervention as state commissions.<sup>9</sup> Those interventions expressing various concerns with Southern Star's proposal included comments and a request for technical conference.<sup>10</sup> Several parties filed comments in response to the Commission's environmental review of the proposed facilities. Those comments are addressed in the Environmental Assessment (EA) prepared for the proposed project and in the environmental section below.

#### **IV. Discussion**

12. Since the construction and operation of the proposed facilities would involve the transportation of natural gas in interstate commerce, the proposals are subject to the jurisdiction of the Commission under section 7(c) of the NGA.

##### **A. Certificate Policy Statement**

13. The Certificate Policy Statement provides guidance as to how the Commission will evaluate proposals for certificating new construction.<sup>11</sup> The Certificate 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 Certificate Policy Statement explained that in deciding whether to authorize the expansion of pipeline facilities, the Commission balances the public benefits against the potential adverse consequences. The Commission's goal is to give appropriate consideration to the enhancement of competitive transportation alternatives, the possibility of overbuilding,

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<sup>8</sup> 18 C.F.R. § 385.214(c) (2009).

<sup>9</sup> 18 C.F.R. § 385.214(a)(2) (2009).

<sup>10</sup> Southern Star states in its March 10, 2010 response to Data Request Question No. 10, that due to additional information it provided and further discussions it held with the KCC and MoPSC, the parties have agreed that a technical conference is not needed.

<sup>11</sup> *Certification of New Interstate Natural Gas Pipeline Facilities*, 88 FERC ¶ 61,227 (1999), *order on clarification*, 90 FERC ¶ 61,128 (2000), *order on clarification*, 92 FERC ¶ 61,094 (2000) (Certificate Policy Statement).

subsidization by existing customers, the applicant's responsibility for unsubscribed capacity, and the avoidance of the unnecessary exercise of eminent domain or other disruptions of the environment.

14. Under this policy, the threshold requirement for existing pipelines proposing new 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 other adverse effects 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 proposals. 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 then proceed to complete the environmental analysis where other interests are considered.

15. As discussed below, current customers will not subsidize the storage services since the new services will be provided on an incremental basis and none of the costs associated with the proposed expansion will be allocated to existing customers. The proposed project will have no adverse effect on other pipelines in the area or on their captive customers. Southern Star minimized landowner impacts by acquiring an option to purchase the land where the proposed new compressor facilities will be constructed. Further, Southern Star states that temporary workspace will be acquired from the landowner for the construction and installation of the compression. All other work will take place on existing Southern Star property, which will minimize landowner impacts.

16. With respect to the 2.6 Bcf increase in total capacity and the increase in deliverability provided by the new compressor facilities, Southern Star's proposal will not result in any adverse operational effects on existing Southern Star customers. However, as discussed in more detail below, Southern Star's proposal to convert 1.4 Bcf of cushion gas to working gas may adversely impact existing customers.

17. Thus, based on the benefits Southern Star's project will provide to the market and the minimal adverse effects on existing customers, other pipelines, landowners, or communities, the Commission finds, consistent with the Certificate Policy Statement and NGA section 7, that the public convenience and necessity requires approval of Southern Star's proposal to increase the Elk City storage field's total and working gas capacity by 2.6 Bcf and to increase the deliverability of the field by 40,000 Mcf per day. However, as discussed below, Southern Star's proposal to convert 1.4 Bcf of cushion gas to working gas may result in a loss of capacity and adversely impact existing customers.

Therefore, the Commission will deny Southern Star's proposal to convert 1.4 Bcf of cushion gas to working gas as not in the public convenience and necessity.<sup>12</sup>

**B. Engineering Analysis**

**1. Total Storage Capacity**

18. The NSAI Study evaluated the Elk City field using an APV analysis. The APV analysis compares reservoir pressure in the spring when inventory is at its low point to reservoir pressure in the fall when inventory is at its high point. Because errors in measurement or small changes in capacity can lead to large discrepancies, APV is averaged over several seasons rather than on a year-by-year basis. Southern Star traditionally calculated the capacity of the Elk City field using an average APV for the life of the field. However, when the storage field was being developed, there were large variations in the APV calculation. Using the life of field APV average incorporates these variations even though APV has since stabilized.

19. Further, Southern Star indicates that the Elk City storage field is influenced by aquifer pressure support. Southern Star notes that its current methodology of inventory calculation, "life of the field" APV, is valid for the other storage reservoirs on its system that exhibit tank-like characteristics, specifically, those that are not influenced by aquifer pressure support, and those that do not experience a material change in hydrocarbon pore volume (HCPV) over time. Southern Star asserts that the NSAI Study recommends using a 10-year rolling average APV for inventory verification of the Elk City storage field as a more accurate methodology to track inventory and storage losses.

20. In this case, specifically because the field has stabilized over time, a 10-year rolling average APV is a more accurate indication of the capacity of the field. The 10-year average APV indicates that the capacity of the Elk City field is 33.3 Bcf. This value is consistent with the total capacity proposed by Southern Star.

21. KCC requests that Southern Star explain how the 10-year average APV calculation would have changed experienced field losses and Lost and Unaccounted for Fuel (LAUF) by providing the experienced field losses and LAUF calculations using the

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<sup>12</sup> Although Southern Star is not authorized to provide the full 4.0 Bcf of storage services, the Commission finds Southern Star's proposal to construct a compressor station to increase the deliverability of the storage field by 40,000 Mcf will provide Southern Star and its customers with more flexibility regarding its ability to cycle the 2.6 Bcf of working gas approved herein. Further, should Southern Star seek to amend its certificate in the future to provide the additional 1.4 Bcf of working gas, Southern Star may use this compression as described in the certificate application.

10-year average APV method over the past five years. Similarly, MoPSC requests that Southern Star explain whether its proposed methodology of determining gas losses is only to be applied to the Elk City storage field and not the Webb storage field, which like the Elk City field is also influenced by aquifer pressure support. KCC and MoPSC request that Southern Star explain the anticipated effect on LAUF gas at the Elk City field, in 2011. KCC requests the Commission require Southern Star to explain the basis for the NSAI Study recommendation. MoPSC questions whether the NSAI Study examined Southern Star's other storage fields to determine whether they were candidates for expansion to increase storage revenues. Further, KCC suggests that Southern Star should be required to explain why the change in methodology should not be accompanied by a "true-up" adjustment for overpayment of LAUF in previous cycles.

22. Southern Star explains that it does not believe that the Elk City storage field losses will increase or decrease as a result of the expansion or changes to the operational plan. Southern Star indicates that it will change its operating plan such that targeted inventory levels are no longer used and injection and withdrawal patterns will be adjusted as needed in an effort to maintain a constant APV. Southern Star contends that even with a nearly constant APV and the new 10-year rolling average of the APV for loss calculation, it will experience the same type of storage losses at the Elk City storage field that are normally associated with any depleted gas reservoir storage field. Southern Star indicates that it will reflect any losses in the annual fuel use filings as required under its tariff. Southern Star indicates that a 10-year rolling average APV is a more accurate methodology to calculate storage losses at the Elk City storage field. Citing the NSAI Study, Southern Star suggests that the 10-year rolling average APV is appropriate because the Elk City storage field receives pressure support from a connected aquifer.<sup>13</sup>

23. Southern Star indicates that it is unable to project the impact the new methodology will have on the LAUF, as it would require Southern Star to calculate future gas storage losses. Southern Star indicates that the LAUF calculation for the previous annual LAUF filings would only change by the difference in the storage loss calculations. To accommodate the KCC's concerns, Southern Star provides an example recalculating the most recent annual LAUF filing using the 10-year rolling average APV method, indicating that the Elk City storage losses would have been 23,770 Mcf utilizing the 10-year rolling average APV methodology instead of the 412,842 Mcf reported utilizing the traditional full life APV methodology.

24. As discussed below, Southern Star is crediting existing storage customers for the 1.9 Bcf of found gas. By crediting existing customers, Southern Star is ensuring that any previous overpayment of LAUF is returned to their firm storage customers. With respect to KCC's and MoPSC's comments regarding other natural gas storage fields owned by

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<sup>13</sup> NSAI Study section 6.2.2.

Southern Star, those facilities are outside the scope of this proceeding. The Commission finds that Southern Star has adequately addressed KCC's concerns and explained the NSAI Study's recommendation of the rolling 10-year average APV methodology for calculating the Elk City storage field losses.

## 2. Working Gas Capacity

25. Southern Star proposes to increase its working gas capacity in two ways: (1) by utilizing the additional storage capacity available from adjusting the APV calculation to a 10-year rolling average (2.6 Bcf), and (2) by converting 1.4 Bcf of base gas to working gas.<sup>14</sup>

26. With respect to the additional 2.6 Bcf, the additional storage capacity is the result of a more accurate calculation. In fact, the NSAI Study estimates that 1.9 Bcf is already present in the storage field. Since the APV calculation has remained constant over the past 10 years, Southern Star has demonstrated that the field can accommodate the additional 2.6 Bcf of working gas capacity without having to increase the storage pressure and creating a risk of lost gas due to over pressurizing the storage field.

27. With respect to the 1.4 Bcf of base gas converted to working gas, Southern Star's proposal risks losing storage capacity from the Elk City field and adversely affecting existing customers. Because the Elk City field is supported by an aquifer, storage capacity may be lost to the aquifer when the storage field is operating at the minimum pressure. Storage capacity losses occur in storage fields that are in pressure communication with an aquifer because the average daily reservoir pressure is not sufficient to prevent a net influx of water from the aquifer. Over time, the influx of water reduces the capacity of the storage field and the influx of water will only be removed by increasing the pressure in the storage field.

28. The NSAI Study confirms that an increase in working gas capacity by conversion of base gas could potentially lead to capacity losses. The reservoir simulation done in the NSAI Study confirms that the Elk City field could lose storage capacity as a result of aquifer encroachment. Southern Star states that it intends to mitigate this capacity loss by injecting additional volumes of gas in the early part of the injection season. While this

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<sup>14</sup> In its comments, the KCC asks Southern star to identify any future plans for expansion and to explain the relationship between those future plans and the current proposal. As stated in Southern Star's January 20, 2010 Response to Staff Data Request, Question No. 5, Southern Star does not propose to increase the storage pressure at the Elk City field at this time. Southern Star states that prior to any increase in storage pressure, additional data about the Elk City field must be gathered.

proposal is consistent with the conclusions set forth in the NSAI Study, neither Southern Star nor the NSAI Study provided any reservoir simulation models to determine what injection profile for the Elk City field would be needed to ensure that no capacity is lost. Southern Star further states that there is no risk of losing storage capacity because it is unlikely that the entire storage volume will be withdrawn from the field. While it is true that over the past seven years on average only 82 percent of working gas is withdrawn, this is not a sufficient justification for decreasing the base gas capacity and risking a loss in storage volume. Each customer has the right to withdraw all of their storage capacity from the field and Southern Star must operate the storage field anticipating that this will be the case. Southern Star's assumption that a portion of working gas will, in essence, operate as base gas is not appropriate. Given that the conversion of base gas to working gas could potentially result in a loss of storage capacity, the Commission will deny Southern Star's request to convert 1.4 Bcf of base gas to working gas.

29. Although the Commission is denying a portion of Southern Star's proposal because of a potential long-term decrease in capacity of the storage field, Southern Star is not prevented from filing an application to amend this certificate in the future to convert base gas to working gas. However, if Southern Star chooses to do so, it must provide technical justification, such as a reservoir simulation model that reflects how the storage field must be operated in order to prevent the loss of storage capacity. In addition, Southern Star must discuss how, or if, its current tariff needs to be revised to ensure that the Elk City field is operated in a way that will not result in the loss of storage capacity.

30. The KCC commented that Southern Star should further justify the statement that the Elk City Project would not result in a material loss of gas. In order to determine if there would be gas lost as a result of its application, Southern Star provided the Commission with a geologic and engineering study (NSAI Study) that evaluated the Elk City field using an APV material balance, an Aquifer Support Material Balance Analysis, and a Full Field Simulation Model. All three models indicated that the capacity of the Elk City field has been under-reported. With the exception of the base gas conversion discussed above, the Commission finds that the Elk City field will not experience gas or capacity loss as a result of the proposed project.

### **3. Operating Plan**

31. Southern Star is currently required to inject and withdraw a certain amount of gas each month in accordance with its approved operating plan. Southern Star seeks to remove these limitations in order to have more flexibility in the operation of its field. Southern Star's revised operating plan is approved. By removing the limitations on injections and withdrawals, the revised operating plan will allow Southern Star to effectively manage the seasonal average reservoir pressure and maintain a constant APV.

32. In its comments, the KCC requests that Southern Star more fully explain its plans for enhanced monitoring of observation wells, and questions who will bear the associated

costs. As stated in Southern Star's January 20 data response to Question No. 4, Southern Star has installed a bottom hole pressure gauge in an existing northern structure observation well (Elk City #O-66). This observation well provides Southern Star with a real time monitoring system providing accurate reservoir pressure data. Further, Southern Star's revised operating plan details additional monitoring that will be provided, such as installing pressure monitoring, metering, and communication equipment on all Elk City wells; monitoring shut-in wells for changes in well bore liquid levels; and operating Elk City wells #60, #61, #62, #63, and #64 as withdrawal only wells. In order to ensure that existing customers do not subsidize the current market-based rates proposal, any enhanced monitoring that is necessary as a result of this storage expansion must be separately accounted for and not charged to existing customers.

#### **4. Compressor Station**

33. Southern Star proposes to install one 6,283 hp compressor unit in order to increase the maximum deliverability of the Elk City field by 40,000 Mcf per day. Although the Commission is not authorizing Southern Star to provide the full 4 Bcf of storage capacity (as noted above), the proposed compressor station is properly designed to provide the additional deliverability. This increase in maximum deliverability will provide Southern Star and its customers with more flexibility regarding its ability to cycle the 2.6 Bcf of working gas approved here. Further, should Southern Star amend its certificate in the future to provide the additional 1.4 Bcf of working gas, Southern Star may propose to use this compression as envisioned in this certificate application.

### **C. Rates**

#### **1. Market-Based Rates under Section 4(f)**

34. Southern Star requests authority to charge market-based rates for its proposed expansion of storage service under section 4(f) of the NGA. In Order No. 678, the Commission promulgated regulations to implement the provisions of section 4(f) to permit underground natural gas storage service providers that are unable to show that they lack market power to nevertheless provide service at market-based rates.<sup>15</sup> Specifically, Order No. 678 requires that underground natural gas storage providers meet the following criteria in order to negotiate market-based rates: (1) the capacity providing the storage service must relate to a "specific facility" requiring certification placed in service after August 8, 2005, the date of the Energy Policy Act of 2005, be it a new

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<sup>15</sup> *Rate Regulation of Certain Natural Gas Storage Facilities*, Order No. 678, FERC Stats. & Regs., Regulations Preambles 2006-2007 ¶ 31,220 (2006), Order No. 678-A, *order on clarification and reh'g*, 117 FERC ¶ 61,190 (2006).

storage cavern or a facility which expands capacity at an existing cavern or reservoir;<sup>16</sup> (2) market-based rates must be in the public interest and necessary to encourage the construction of storage capacity in an area needing storage services;<sup>17</sup> and (3) customers must be adequately protected from the potential exercise of market power.<sup>18</sup>

**a. Facilities Must be Constructed After August 8, 2005**

35. In order to obtain authority to charge market-based rates for storage capacity under section 284.505(a),<sup>19</sup> the storage capacity must be related to a specific facility put into service after August 8, 2005. MoPSC questions whether Southern Star's proposal meets this requirement. Since Southern Star plans to build a new compressor facility that is necessary to provide the proposed expansion of service, and plans to place the facility into service on April 1, 2011, Southern Star meets this requirement.

**b. Market-Based Rates Are Necessary to Encourage the Construction of the Storage Capacity in the Area Needing Storage Service**

36. In determining whether allowing market-based rates is in the public interest, the Commission considers, among other things, the extent to which capacity is needed in the area of the project, the risk faced by the project sponsors, and the strength of the applicant's showing that the facilities would not be built except for market-based rate treatment.<sup>20</sup>

37. The Commission has stated that an applicant can demonstrate that storage services are needed in an area by providing evidence of: (i) a general lack of storage in the area; (ii) full utilization of existing storage capacity; (iii) pipeline constraints in the area; and/or (iv) projected increased demand for natural gas in the area to be served.<sup>21</sup>

38. Southern Star's existing storage capacity, including its various expansions, has been fully subscribed since October 1, 1993 when its services were restructured pursuant

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<sup>16</sup> Order No. 678, FERC Stats. & Regs. ¶ 31,220 at P 115.

<sup>17</sup> *Id.* P 125-132.

<sup>18</sup> *Id.* P 153-159.

<sup>19</sup> 18 C.F.R. § 284.505(a) (2009).

<sup>20</sup> Order No. 678, FERC Stats. & Regs. ¶ 31,220 at P 128-129.

<sup>21</sup> *Id.* P 131.

to Order No. 636. In addition, Southern Star asserts that customers have shown a significant interest in new storage capacity, even though they have been unwilling to contract for long-term capacity needed to support cost-based rates.<sup>22</sup> Thus the Commission finds there is a demonstrated need for natural gas storage in the area to be served by the Elk City Project.

39. The Commission has indicated that the best means for demonstrating that cost-based rates are not sufficient to encourage the construction of storage capacity is for the applicant to present evidence that it offered its capacity at cost-based rates through an open season and was unable to obtain sufficient long-term commitments for service.<sup>23</sup> As discussed above, Southern Star held three binding open seasons for up to 5.0 Bcf of storage capacity, soliciting bids at cost-based reserve rates. Customers were not willing to enter into long-term contracts supporting cost-based rates during the open season. Based upon the above, the Commission finds that market-based rates are necessary to encourage the construction of the proposed storage capacity.

### **c. Customer Protection**

40. The final requirement for obtaining market-based rate authority under NGA section 4(f) is that customers be adequately protected. In Order No. 678, the Commission discussed various ways in which an applicant for market-based rates could ensure that both existing cost-based rate customers and potential market-based rate customers are adequately protected. The Commission noted that protection of potential storage customers started with a fair and open opportunity to contract for proposed new capacity and stated that one way an applicant could demonstrate that this requirement had been met was by showing that it had conducted a fair and transparent open season. As discussed above, the Commission finds that the open seasons conducted by Southern Star satisfy this requirement. The Commission also stated that, like every Part 284 transporter, storage providers charging market-based rates pursuant to section 4(f) must comply with the nondiscriminatory access requirements of the Commission's regulations. Further, the Commission stated that applicants which already serve customers under prior authorizations would be required to demonstrate that existing customers will not be subject to additional costs, risks, or degradation of service resulting from the new market-based rate services. In addition, successful applicants for section 4(f) authority would be

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<sup>22</sup> During the initial open season for 5.0 Bcf, Southern Star received six bids for a total of 6,936,203 Mcf of storage capacity, but only one of the bids for 300,000 Mcf was conforming for a ten-year term. For the second and third open seasons for 4.0 Bcf, Southern received four bids for 4,250,000 Mcf of capacity with three of the bids conforming for 4.0 Bcf of storage capacity for a minimum term of five years.

<sup>23</sup> Order No. 678, FERC Stats. & Regs. ¶ 31,220 at P 129.

required to separately account for the costs, services, and commitments associated with section 4(f) authorizations and to provide such service under an open-access tariff stating the terms and conditions of the service offered. Finally, Order No. 678 provides that an applicant for section 4(f) authority must demonstrate how it intends to safeguard against withholding capacity and specify whether and, if so, how it will establish a reserve price.<sup>24</sup> As discussed below, the Commission finds that Southern Star's proposal satisfies all these requirements.

**(1) Auction Procedure**

41. As its primary means of implementing adequate measures to prevent the withholding of capacity, Southern Star proposes an open and transparent auction process for selling unsubscribed firm and interruptible capacity, and establishing a reserve price for the auction. The Commission has recognized that auctions "can be used as methods of mitigating the effects of market power by limiting the ability of sellers to withhold capacity, to price discriminate, or to show favoritism."<sup>25</sup> Southern Star asserts that its proposed auction process adheres to the principles outlined in Order No. 637 regarding: (1) notification of auction; (2) predictable timing; (3) open to all bidders on a nondiscriminatory basis; (4) user-friendly with accessible rules; (5) full prior disclosure of procedures for bidding in an auction and how winning bids will be selected; (6) no favoritism in selecting the winning bid, including monitoring of the application of selection criteria and methods for verifying reserve price; and (7) disclosure of transaction information, including prices and volumes.<sup>26</sup> Southern Star's auction

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<sup>24</sup> *Id.* P 154-67.

<sup>25</sup> *Regulation of Short-Term Natural Gas Transportation Services and Regulation of Interstate Natural Gas Transportation Services*, Order No. 637, FERC Stats. & Regs., Regulations Preambles July 1996-December 2000 ¶ 31,091, at 31,294; *clarified*, Order No. 637-A, FERC Stats. & Regs., Regulations Preambles July 1996-December 2000 ¶ 31,099; *reh'g denied*, Order No. 637-B, 92 FERC ¶ 61,062 (2000); *aff'd in part and remanded in part sub nom. Interstate Natural Gas Association of America v. FERC*, 285 F.3d 18 (D.C. Cir. 2002); *order on remand*, 101 FERC ¶ 61,127 (2002), *order on reh'g*, 106 FERC ¶ 61,088 (2004), *aff'd sub nom. American Gas Association v. FERC*, 428 F.3d 255 (D.C. Cir. 2005). (Auctions, if properly designed, can provide for efficient allocation of capacity and natural gas, reduce the transaction costs of finding and arranging capacity transactions, and provide for more accurate dissemination of relative pricing information to the marketplace. Auctions also can be used as methods of mitigating the effects of market power by limiting the ability of sellers to withhold capacity, to price discriminate, or to show favoritism.)

<sup>26</sup> Order No. 637, FERC Stats. & Regs. ¶ 31,091 at 31,296.

procedures are set forth in its open-access transportation tariff and available to all market participants.<sup>27</sup>

42. Southern Star proposes to post all available market-based rate storage capacity on its electronic bulletin board prior to the auction, conducting the auctions on its electronic bulletin board, and permitting customers to submit bids and monitor the auction electronically. A prerequisite to submitting a bid is satisfying Southern Star's credit requirements set forth in section 8.5 of the GT&C. Under Southern Star's proposed procedures, there are two ways that an auction for capacity can be initiated: (1) Southern Star can initiate the auction if it has excess storage capacity available, or (2) a customer can initiate an auction by requesting available firm market-based rate storage service. The notice of auction will contain: (1) quantity of capacity available; (2) term; (3) time(s) of the auction; (4) steps necessary to participate; (5) criteria for determining the winning bid; and (6) reserve price.<sup>28</sup> Once the bidding period terminates, all bids are binding. Southern Star will not accept a bid below the reserve price without conducting a new auction which reflects a reduced reserve price where all bidders will have the opportunity to participate with the knowledge that Southern Star will accept a reduced price. If the winning bidder fails to execute a new service agreement, Southern Star will have the right to re-auction the capacity and the customer that failed to execute a service agreement will be required to pay the difference between the winning bid price and the price received in the re-auction.

43. Section 284.505(a)(2) requires that a storage service provider seeking market-based rate authority pursuant to section 4(f) must provide a means of protecting customers from the potential exercise of market power. In Order No. 678, the Commission found that "a proposal that acts to prevent withholding as a method of exercising substantial market power, tempered with a reasonable reserve price which would allow a section 4(f) applicant to recover its investment appears to be the best way

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<sup>27</sup> See proposed section 34 of the General Terms and Conditions (GT&C), "Auction for Storage Service Subject to Market-Based Rates" at Pro Forma Sheet Nos. 310-312.

<sup>28</sup> Southern Star's reserve price for the expansion capacity will be priced at \$1.14 per Dth, which is the cost-based rate for the proposed facilities with a projected construction cost of \$23,153,510, first year cost of service of \$4,559,024 and a MSQ of 4,000,000 Mcf. The reserve price is applicable to either Southern Star or the customer initiating the auction. If Southern Star seeks to change the reserve price, it is required to file a section 4 rate proceeding requesting such a change. The \$1.14 per Dth reserve rate is the same rate Southern Star used in its second and third open season and is based on Southern Star's Commission approved cost-of-service determinates.

to satisfy the test."<sup>29</sup> Southern Star's cost-based reserve price is appropriately designed based on the construction costs and Southern Star's Commission approved cost-of-service determinates. Further, if the parties are unable to agree on a price, the minimum acceptable bid will be the cost-based reserve price. The Commission finds that Southern Star's auction process for selling firm and interruptible storage service, using the proposed expansion capacity, meets the customer protection requirement of NGA section 4(f).

**(2) Enforcement of Customer Protection**

44. MoPSC asserts that Southern Star has not adequately demonstrated that its proposal is consistent with section 4(f)(1)(B),<sup>30</sup> which requires that customers are adequately protected, and not subject to additional costs, risks, or degradation of service resulting from new services provided under section 4(f).<sup>31</sup> MoPSC states that Southern Star has experienced increased storage losses in recent years which have been the subject of numerous proceedings at the Commission,<sup>32</sup> with the Elk City field experiencing relatively high gas losses. MoPSC further states that since Southern Star's customers do not designate into which storage field their gas is injected or withdrawn, cost allocation for market-based rate service should be designed to avoid subsidization by current cost-based storage customers. MoPSC asserts that an adequate tracking mechanism needs to be in place to ensure that there is adequate data available in any future fuel reconciliation or rate case to protect against cross-subsidization of any new market-based storage services by existing customers.

45. Southern Star explains that to ensure that the new facilities will be paid for only by those customers contracting for new capacity, it will: (1) separately account for construction costs for the expansion facilities; (2) establish a separate cost center for operations and maintenance costs associated with the expansion facilities, instructing field personal to assign costs to the new cost center; (3) allocate general and administrative (A&G) costs consistent with the Kansas-Nebraska allocation method used

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<sup>29</sup> Order No. 678, FERC Stats. & Regs. ¶ 31,220 at P 163.

<sup>30</sup> *Id.* P 153.

<sup>31</sup> *Id.* P 156.

<sup>32</sup> *Williams Gas Pipelines Central, Inc.*, 101 FERC ¶ 61,407 (2002); *Southern Star Central Gas Pipelines, Inc. (formerly Williams Gas Pipelines Central, Inc.)*, 108 FERC ¶ 63,038 (2004); *Southern Star Central Gas Pipeline Inc.*, 109 FERC ¶ 61,378 (2004); 115 FERC ¶ 61,219 (2006); 117 FERC ¶ 61,357 (2006); 121 FERC ¶ 61,306 (2007); 124 FERC ¶ 61,016 (2008); and 125 FERC ¶ 61,388 (2008).

in Southern Star's prior rate proceedings and remove such costs from its existing cost-based services in future rate proceedings;<sup>33</sup> and (4) separately identify and track storage injections, withdrawals, and inventory balances related to market-based rate expansion customers, establishing separate revenue accounts for all revenues associated with the market-based rate services.<sup>34</sup>

46. Southern Star's proposed method of allocating costs of constructing and maintaining the expansion facilities, isolating the market-based costs and revenues, and keeping separate books and records will ensure that existing customers will not subsidize the cost of constructing and maintaining the expansion. The books and records must be made available during a rate case, so parties can examine such records to ensure that existing customers are not subsidizing facilities from which they are not receiving service.<sup>35</sup> Further, during Southern Star's annual fuel use filings, it must separately track fuel related to the new compressor and storage injections and withdrawals related to the expansion customers so all parties can monitor the impact of the expansion facilities on the storage fuel and loss rate to ensure that existing cost-based customers are not subsidizing the expansion. Such measures address MoPSC's concerns that cost-based rate customers be shielded from the costs of constructing, operating, and maintaining the facilities, as well as, costs for injections, withdrawals, and fuel use associated with the market-based rates services.

47. In addition, Southern Star's books must be maintained with applicable cross-references as required by section 154.309 of the Commission's regulations. This information must be in sufficient detail so that the data can be identified in Statements G, I, and J in any future NGA section 4 or 5 proceeding. Southern Star is required to retain such records for its cost-based and market-based storage for the period it operates its storage system. Further, Southern Star is required to comply with the Commission's reporting requirements in Form Nos. 2 and 3-Q,<sup>36</sup> which will allow the Commission and

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<sup>33</sup> The Kansas-Nebraska method refers to the methodology for the allocation of A&G costs. *See Kansas-Nebraska Natural Gas Company*, 53 FPC 1721 (1975).

<sup>34</sup> Southern Star is required to file its next NGA section 4(e) general rate case no later than December 1, 2012. *See* Article VIII of the Stipulation and Agreement filed on December 11, 2008, in Docket No. RP08-350-000, approved in *Southern Star Central Gas Pipeline, Inc.*, 122 FERC ¶ 61,120 (2009).

<sup>35</sup> *See* Southern Star's January 20, 2010 Response to Staff Data Request, Question No. 9 and March 10, 2010 Response to Staff Data Request, Question No. 6.

<sup>36</sup> Form No. 2 – Annual Report for Major Natural Gas Companies and Form No. 3-Q – Quarterly Financial Report of Electric Utilities, Licenses and Natural Gas Companies. Further, a new schedule was added to the Form No. 3-Q, “Monthly Quantity  
(continued...)”

other parties to determine whether Southern Star has sold Rate Schedules FS1 and IS1 service in excess of the available incremental storage capacity. Such a policy provides sufficient protection to Southern Star's existing Rate Schedules FS1 (Firm Storage Service with market-based rates) and IS1 (Interruptible Storage Service with market-based rates) customers from paying for market-based rate service. Further, the customers will have the opportunity during a section 4 proceeding to examine Southern Star's books to confirm that the costs for the services have been properly allocated.

**(3) Interruptible Capacity**

48. Southern Star proposes to use 0.7 Bcf of the currently available incremental storage capacity to provide Rate Schedule ISS service at existing Commission-approved, cost-based rates from the date of this order until firm service under market-based rate service is available. The Commission finds that providing additional interruptible service until market-based rate service becomes available will permit greater use of Southern Star's storage facilities and serve the public interest.

**(4) Other Rate Issues Raised by Intervenors**

**a. Allocation of 1.9 Bcf of Found Natural Gas**

49. Southern Star indicates that in order to provide the increased incremental storage service proposed in the Elk City Project, it will recognize that the Elk City storage field contains approximately 1.9 Bcf more gas in inventory than the inventory records reflect. Southern Star suggests that the additional 1.9 Bcf is the result of the NSAI Study's recommendation to use a 10-year rolling average APV calculation for inventory verification and calculated losses. Southern Star asserts that the 1.9 Bcf currently occupies a portion of the 2.6 Bcf of additional capacity reflected in the NSAI Study. Southern Star indicates that the 1.9 Bcf is currently providing pressure support for Southern Star's existing storage service. Southern Star proposes to remove the 1.9 Bcf and credit, as of April 1, 2011, the existing firm storage customers' pro rata share of the 1.9 Bcf based on each customer's firm Maximum Storage Quantity (MSQ) compared to the total firm MSQ.

50. KCC and MoPSC question how Southern Star acquired the additional 1.9 Bcf of gas. KCC requests Southern Star provide the relevant documentation work papers supporting the increase of 1.9 Bcf in storage gas identified in the NSAI Study. KCC asks the Commission to require Southern Star to identify the period of time over which

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& Revenue by Rate Schedule.” *See Revisions to Forms, Statements, and Reporting Requirements for Natural Gas Pipelines*, Order No. 710, FERC Stats. & Regs ¶ 31,267, at P 51 (2008).

Southern Star and/or the NSAI study believe the additional 1.9 Bcf of unaccounted-for storage gas accumulated. KCC contends that Southern Star has not demonstrated whether past and present storage customers paid LAUF charges associated with the additional 1.9 Bcf. MoPSC suggests that the proposal may result in new storage customers receiving a windfall at the expense of customers that contributed to the found gas.

51. Further, KCC asserts that Southern Star failed to explain why it is appropriate to credit only current firm storage customers. MoPSC explains that the measurement of LAUF charges for Southern Star's pipeline system and storage fields are interrelated and there may be additional customers other than the designated firm storage customers that are entitled to a crediting of their prorated share of the 1.9 Bcf. KCC contends that Southern Star has failed to sufficiently demonstrate that the additional 1.9 Bcf of gas is not gas for which past and present customers have already paid LAUF charges.

52. KCC and MoPSC request the Commission require Southern Star to identify the individual customers that paid LAUF charges and quantify the dollar amount of LAUF previously paid by individual customers that correlates with the additional 1.9 Bcf of unaccounted-for storage gas. KCC suggests this method is more appropriate than Southern Star's proposed allocation.

53. Southern Star states that it can not ascertain when or during what time period the 1.9 Bcf was accumulated. As such, Southern Star cannot determine whether the accumulation is due to current or past customers that paid LAUF charges associated with the 1.9 Bcf. As indicated by Southern Star, the same storage customers, with minor exceptions,<sup>37</sup> have held the same MSQ since October 1, 1993, when Southern Star restructured its services.

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<sup>37</sup> See Southern Star's March 10, 2010 Data Response to Question Nos. 2 and 3. Southern Star explains that the majority of the changes fall into three categories: (1) the distribution company or municipality was acquired by another company; (2) Southern Star reduced the amount of capacity held for system balancing as part of an NGA section 4 proceeding and held an open season for additional firm storage capacity; and (3) the Kansas Municipal Gas Agency (KMGA) provides agency services for municipalities that vary from year-to-year. Southern Star indicates that the municipality will either receive their portion of the allocation as part of the KMGA allocation or as their own allocation. Further, Southern Star provided a list of its customers as of October 1, 1993, October 1 1997, and January 1, 2010 and their respective MSQ, which confirms the minimal change in storage customers for the past 17 years. Southern Star's storage service is fully subscribed and none of the existing cost-based contracts will expire between now and April 1, 2011.

54. We agree that it likely would be impossible for Southern Star to identify the individual customers that may have paid for any specific portion of the 1.9 Bcf of gas at issue. However, Southern Star has provided detailed documentation in its March 10, 2010 data response regarding each customer's MSQ as of October 1, 1993, October 1, 1997, and January 1, 2010, respectively. This information supports Southern Star's contention that its storage customers today are essentially the same customers that have been paying for its storage services for the past 17 years. Thus, the Commission finds that Southern Star's proposal to credit the 1.9 Bcf of gas to existing customers as of April 1, 2011, is a reasonable method for allocating the gas among those who may have paid charges associated with it in the past. Further, Southern Star's proposal ensures that expansion customers will not be allocated any of the 1.9 Bcf of gas.

**b. Proceeds from the Sale of 1.4 Bcf of Base Gas**

55. To create a portion of the proposed 4.0 Bcf of storage capacity, Southern Star proposes to convert 1.4 Bcf of the current 22.9 of base/cushion gas at the Elk City field to working gas, selling the working gas, and retaining the proceeds. Southern Star contends that it paid for the 22.9 Bcf of base/cushion gas in the Elk City field, reporting such volumes in its Form 2. It states that the total value recorded in Account No. 117.1 for all storage fields is \$9,084,020, with a total volume of 97,139,734 Dth. Southern Star further explains that of the 22.9 Bcf of base/cushion case at Elk City, 18.2 Bcf is recoverable gas, with 4.7 Bcf native non-recoverable gas.<sup>38</sup>

56. MoPSC and KCC contend that there may be customers entitled to the proceeds from the 1.4 Bcf of gas sales proposed by Southern Star. The MoPSC and the KCC request that Southern Star provide additional information to determine the appropriate allocation of the proceeds from the gas sales.

57. As discussed above, the Commission will not permit Southern Star to convert base gas to working gas. Therefore the issue of distribution of the proceeds of the sale is moot.

**D. Pro Forma Tariff**

58. Southern Star proposes to offer market-based firm and interruptible storage services,<sup>39</sup> providing these services on an open-access, not unduly discriminatory basis.

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<sup>38</sup> See Southern Star's March 10, 2010 Response to Staff Data Request, Question No. 1.

<sup>39</sup> Southern Star proposes Rate Schedules FS1 and IS1.

Southern Star states that it will provide these storage services pursuant to its pro forma tariff attached as Exhibit P to its application. The Commission finds that Southern Star's proposed tariff, as revised, is consistent with section 4(f) of the NGA. The Commission directs Southern Star to file revised actual tariff sheets no more than 60 days prior to the commencement of service.

59. As discussed above, Southern Star, in auctioning capacity, has developed a cost-based reserve price of \$1.14 per Dth, based on the projected \$23.1 million construction cost, cost of service of \$4,559,024, and an MSQ of 4 Bcf. Since Southern Star's request for 4.0 Bcf of working gas storage capacity is now limited to 2.6 Bcf of storage capacity, the projected \$23.1 million of construction costs, cost of service, and billing determinates are also affected. Southern Star, therefore, is required to provide revised construction costs for the 2.6 Bcf of working gas capacity, a revised cost of service, and a revised reserve rate to support the adjustments required by this order. Further, in several places in its tariff, Southern Star indicates that it will be providing 4,000,000 Dth of storage capacity.<sup>40</sup> Since Southern Star's market-based storage capacity is now limited to 2,600,000 Dth of storage capacity, Southern Star is required to revise those sections of its tariff.

#### **E. Request for Waivers**

60. Since it is proposing market-based storage rates, Southern Star requests a waiver of the filing requirement contained in section 157.14(a) of the Commission's regulations, namely, Exhibit N (Revenues Expenses and Income.) The request for waiver of this requirement is granted.

#### **VI. Environmental Analysis**

61. On November 16, 2009, the Commission issued a *Notice of Intent to Prepare an Environmental Assessment* (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.

62. The Commission received comments in response to the NOI from the Kansas State Historic Preservation Office (SHPO) and one landowner. The SHPO stated that it had already reviewed the project and had no objection to its implementation. The landowner stated that Southern Star's efforts to avoid and minimize environmental impacts on this project were exceptional.

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<sup>40</sup> See Pro Forma Sheet Nos. 11A, 155, 161, and 313.

63. To satisfy the requirements of the National Environmental Policy Act, the Commission's staff prepared an environmental assessment (EA) for Southern Star's proposal that was placed in the public record on March 30, 2010. The EA addresses water resources, wildlife, vegetation, fisheries, federally listed threatened and endangered species, cultural resources, air quality, noise quality, and alternatives.

64. 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 of facilities approved by this Commission.<sup>41</sup>

65. Based on the discussion in the EA, the Commission concludes that if constructed in accordance with Southern Star's application and supplements, and in compliance with the environmental conditions in Appendix B to this Order, our approval of this proposal would not constitute a major federal action significantly affecting the quality of the human environment.

66. At a hearing held on May 20, 2010, the Commission on its own motion, received and made a part of the record in this proceeding all evidence, including the application and exhibits thereto, submitted in support of the authorizations sought herein, and upon consideration of the record,

The Commission orders:

(A) A certificate of public convenience and necessity is issued to Southern Star to construct its proposal, as described more fully in the application and as approved and conditioned in the body of this order.

(B) The certificate authority issued in Ordering Paragraph (A) is conditioned on Southern Star's compliance with all applicable Commission regulations under the NGA, particularly the general terms and conditions set forth in paragraphs (a), (c), (e), and (f) of section 157.20 of the regulations.

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<sup>41</sup> See, e.g., *Schneidewind v. ANR Pipeline Co.*, 485 U.S. 293 (1988); *National Fuel Gas Supply v. Public Service Commission*, 894 F.2d 571 (2d Cir. 1990); and *Iroquois Gas Transmission System, L.P., et al.*, 52 FERC ¶ 61,091 (1990) and 59 FERC ¶ 61,094 (1992).

(C) Southern Star shall construct and make available for service the facilities authorized herein within one year from the date this order is issued, pursuant to paragraph (b) of section 157.20 of the Commission's regulations.

(D) Southern Star's request to charge market-based rates for firm and interruptible storage service under section 4(f) is approved, as discussed and subject to the condition of this order.

(E) Southern Star must submit actual tariff sheets and construction cost data for 2.6 Bcf of storage capacity, revised cost-of-service data, and a revised reserve rate consistent with the requirements contained in the body of this order 60 days prior to the date of service.

(F) Southern Star is authorized to utilize 0.7 Bcf of storage service to provide interruptible storage service under Rate Schedule ISS until service under market-based rates is available.

(G) The certificate issued in Ordering Paragraph (A) is conditioned on Southern Star's compliance with the engineering conditions listed in Appendix A to this order.

(H) The certificate issued in Ordering Paragraph (B) is conditioned on Southern Star's compliance with the environmental conditions listed in Appendix B to this order.

(I) Southern Star shall notify the Commission's environmental staff by telephone, e-mail, and/or facsimile of any environmental noncompliance identified by other federal, state, or local agencies on the same day that such agency notifies Southern Star. Southern Star shall file written confirmation of such notification with the Secretary of the Commission within 24 hours.

By the Commission.

( S E A L )

Kimberly D. Bose,  
Secretary.

## APPENDIX A

### Engineering Conditions

1. The maximum inventory of natural gas stored in the Elk City storage field shall not exceed the certificated levels of 33.3 Bcf comprised of 10.4 Bcf of working gas and 22.9 Bcf of base gas at 14.73 psia and 60 degrees Fahrenheit. The maximum daily withdrawal rate from the Elk City storage field shall not exceed 269,000 Mcf/day.
2. Southern Star shall operate the Elk City storage field in such a manner as to prevent/minimize gas loss or migration. To ensure gas losses will be mitigated, Southern Star must file an annual inventory verification report and hysteresis curves to account for any potential gas loss (volumes shall be stated at 14.73 psia and 60 degrees Fahrenheit, and pressures shall be stated in psia):
3. Southern Star 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):
  - (a) The daily volumes of natural gas injected into and withdrawn from the storage reservoir;
  - (b) The volume of natural gas in the reservoir at the end of the reporting period;
  - (c) 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;
  - (d) 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;
  - (e) Any surveys of pressures in gas wells, and the results of back-pressure tests conducted during the reporting period;
  - (f) The latest revised structural and isopach maps showing the surface and bottomhole locations of the wells and the location of the gas-water contact. These maps need not be filed if there is no material change from the maps

previously filed;

- (g) A summary of wells drilled, worked over, or recompleted during the reporting period with subsea depth of formation and casing settings, as well as copies of any new core analyses, back-pressure tests, or well log analyses;
- (h) Discussion of current operating problems and conclusions; and
- (i) Such other data or reports which may aid the Commission in the evaluation of the storage project.

The semiannual report shall continue to be filed until the storage inventory volume and pressure have reached or closely approximate the maximum permitted in the Commission's Order. Thereafter, the reports shall continue on a semiannual basis for a period of one year.

## APPENDIX B

### Environmental Conditions

1. Southern Star shall follow the construction procedures and mitigation measures described in its application and supplements and as identified in the EA, unless modified by the Order. Southern Star must:
  - a. request any modifications to these procedures, measures, or conditions in a filing with the 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 Office of Energy Projects (OEP) before using that modification.
2. The Director of OEP has delegated authority to take whatever steps are necessary to insure the protection of all environmental resources during construction and operation of the project. This authority would allow:
  - a. the modification of conditions of the 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 construction**, Southern Star 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, Southern Star 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 the facilities approved by the Order. All requests for modifications of environmental conditions of the Order or site-specific clearances must be written and must reference locations designated on these alignment maps/sheets.
5. Southern Star 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 OEP before construction in or near that area. This requirement does not apply to minor field realignments per landowner needs and requirements which do not affect other landowners or sensitive environmental areas such as wetlands.

Examples of alterations requiring approval include all route realignments and facility location changes resulting from:

- a. implementation of cultural resources mitigation measures;
  - b. implementation of endangered, threatened, or special concern species mitigation measures;
  - c. recommendations by state regulatory authorities and agreements with individual landowners that affect other landowners or could adversely affect sensitive environmental areas.
6. Southern Star must receive written authorization from the Director of OEP **before commencing service** from the project. Such authorization will only be granted following a determination that rehabilitation and restoration of the right-of-way and other disturbed areas is proceeding satisfactorily.
  7. Southern Star shall file a noise survey with the Secretary **no later than 60 days** after placing the Elk City Compressor Station in service. If the noise attributable to the operation of the facility at full load exceeds an  $L_{dn}$  of 55 dBA at any nearby noise sensitive areas, Southern Star shall install additional noise controls to meet that level **within one year** of the in-service date. Southern Star should confirm compliance with the  $L_{dn}$  of 55 dBA requirement by filing a second noise survey with the Secretary **no later than 60 days** after it installs the additional noise controls.
  8. **Prior to receiving written authorization from the Director of OEP to commence construction of project facilities**, Southern Star shall file with the Secretary documentation that it has received all authorizations required under federal law (or evidence of waiver thereof).