

132 FERC ¶ 61,168
UNITED STATES OF AMERICA
FEDERAL ENERGY REGULATORY COMMISSION

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

Petal Gas Storage, L.L.C.

Docket No. CP10-50-000

ORDER ISSUING CERTIFICATE

(Issued August 24, 2010)

1. On January 29, 2010, Petal Gas Storage, L.L.C. (Petal Gas) filed an application in Docket No. CP10-50-000 seeking authority under section 7(c) of the Natural Gas Act (NGA)¹ and Part 157 of the Commission's regulations² for a certificate of public convenience and necessity to convert, operate, and maintain an existing salt-brine production cavern, Cavern No. 12A, within the Petal Salt Dome for use as a new salt dome natural gas storage cavern, and to construct an approximately 1,525-foot, 16-inch-diameter natural gas pipeline and appurtenant facilities to connect the cavern to Petal Gas's existing facilities (Cavern No. 12A Conversion Project). The Cavern No. 12A Conversion Project, with a proposed storage capacity of 8.2 billion cubic feet (Bcf), consisting of 5.0 Bcf of working gas and 3.2 Bcf of cushion gas, will be located east of Hattiesburg, Mississippi, within Petal Gas's existing natural gas storage complex. Petal Gas also requests continued authority to charge market-based rates for its storage services and requests continued waiver of those parts of the Commission's regulations requiring the submission of cost data.

2. As discussed below, the Commission finds that approval of Petal Gas's proposal is required by the public convenience and necessity. Therefore, the Commission grants Petal Gas's requested authorizations, subject to the conditions set forth below.

¹ 15 U.S.C § 717f(c) (2006).

² 18 C.F.R. Part 157 (2010).

I. Background

3. Petal Gas, a Delaware limited liability company and a wholly-owned subsidiary of Enterprise Products Partners, L.P. (Enterprise), with its principal place of business in Forrest County, Mississippi, is a natural gas company as defined by section 2(6) of the NGA.³ Petal Gas is primarily engaged in the storage and delivery of natural gas for others in interstate commerce.

4. In 1993, the Commission issued Petal Gas an initial certificate authorizing it to construct, own, and operate Cavern No. 6 on the Petal Salt Dome in Forrest County, Mississippi.⁴ Between 1999 and 2007, the Commission granted Petal Gas certificates to construct and operate five additional natural gas storage caverns including, in the order of certification, Cavern Nos. 7, 3, 8, 9 and 10.⁵ Petal Gas filed prior notice pursuant to section 157.214 of the Commission's regulations⁶ and its blanket certificate, to increase the authorized storage capacity of Cavern No. 8 from 7.9 Bcf (5.0 Bcf of working gas and 2.9 Bcf of cushion gas) to 9.058 Bcf (5.859 Bcf of working gas and 3.199 Bcf of base

³ 15 U.S.C. § 717a(6) (2006).

⁴ *Petal Gas Storage Co.*, 64 FERC ¶ 61,190 (1993), *as amended*, 67 FERC ¶ 61,135 (1994). Salt dome storage caverns are created by injecting large volumes of water into subsurface geologic salt formations to dissolve the salt and pumping the brine fluids from the cavern.

⁵ *See Petal Gas Storage Co.*, 86 FERC ¶ 61,224 (1999), (authorizing construction of Cavern No. 7); *Petal Gas Storage, L.L.C. (formerly, Petal Gas Storage Co.)*, 90 FERC ¶ 61,243 (2000) (approving increased capacity of Cavern Nos. 6 and 7), *as amended*, 96 FERC ¶ 61,177 (2001) (approving minor design modifications to Cavern Nos. 6 and 7); *Petal Gas Storage, L.L.C.*, 102 FERC ¶ 61,243 (2003) (authorizing the conversion of existing subsurface brine storage cavern, Cavern No. 3, to natural gas service and construction of Cavern No. 8); and *Petal Gas Storage, L.L.C.*, 118 FERC ¶ 61,253 (2007) (authorizing the conversion of natural gas liquids storage cavern, Cavern No. 9, to natural gas service and construction of Cavern No. 10, in two phases). Subsequently, Petal Gas abandoned Cavern No. 9 after it was found to be in communication with two other inactive brine caverns located outside of Petal Gas's boundaries. *Petal Gas Storage, L.L.C.*, 121 FERC ¶ 62,186 (2007).

⁶ 18 C.F.R. § 157.214 (2010).

gas). Between 2000 and 2007, the Commission also granted Petal Gas authorizations for various pipeline and compression facilities associated with its storage operation.⁷

5. Most recently, the Commission authorized Petal Gas to: construct and operate two new salt dome natural gas storage caverns, Cavern Nos. 1 and 2, add 15,000 hp of compression to the Petal No. 3 Compressor Station, and construct other appurtenant facilities.⁸ Therefore, in total, Petal Gas's natural gas storage facilities are currently certificated for seven caverns with a total capacity of 52.46 Bcf, consisting of 31.06 Bcf of working gas and 21.4 Bcf of cushion gas, a maximum injection capability of 1,732 MMcf per day, and a peak deliverability of 3,065 MMcf per day.⁹

6. Petal Gas states that it has constructed and expanded its facilities, as described above, in order to meet the growing market demand for its natural gas storage services. Petal Gas states that it expects market demand for its storage services to increase further and is, therefore, seeking Commission approval for the proposed facilities in order to meet that market demand.

⁷ *Petal Gas Storage, L.L.C.*, 92 FERC ¶ 61,220 (2000) (authorizing construction of new compression at its storage facilities, a 5.5-mile-long storage header loop, and enlargement of an existing interconnection with Tennessee Gas Pipeline Company); *Petal Gas Storage, L.L.C.*, 97 FERC ¶ 61,097 (2001) (authorizing construction of a 59-mile pipeline and interconnecting facilities to Southern Natural Gas Company through which it provides cost-based transportation services); *Petal Gas Storage, L.L.C.*, 102 FERC ¶ 61,243 (authorizing construction of Petal No. 2 Compressor Station with 5,000 horsepower (hp)); *Petal Gas Storage, L.L.C.*, 110 FERC ¶ 61,260 (2005) (authorizing increase of mainline pressure on Pipeline 100 to expand capacity from 700 MMcf per day to 1.3 Bcf per day); *Petal Gas Storage, L.L.C.*, 119 FERC ¶ 61,227 (2007) (authorizing construction of Petal No. 3 Compressor Station with 15,000 hp).

⁸ *Petal Gas Storage, L.L.C.*, 124 FERC ¶ 61,066 (2008). Petal Gas requested, and was granted, an extension of time until July 18, 2011, to complete the facilities and place them in service.

⁹ The numbering of Petal Gas's storage caverns is not based on the order of certification, but rather on the layout of a geographic grid of wells established prior to their conversion and certification as jurisdictional facilities.

II. Proposal

A. Facilities

7. Petal Gas states that its proposed Cavern No. 12A Conversion Project involves converting an existing brine-production cavern within the Petal Salt Dome into a new salt dome natural gas storage cavern. According to Petal Gas, Enterprise currently owns and operates the cavern for salt-brine production to support Enterprise's natural gas liquids business. Petal Gas states that the size, depth and location of the cavern within the Petal Salt Dome makes it suitable for conversion for use as a natural gas storage cavern and, therefore, Petal Gas has obtained an option from Enterprise to purchase the cavern conditioned upon Petal Gas's receipt of certificate authority from the Commission for its proposal.

8. Petal Gas states that Cavern No. 12A is located on an existing well pad so no additional acreage will be necessary for the proposed project. Petal Gas continues that the additional solution mining required to convert the cavern to a natural gas storage cavern would be conducted over approximately twelve months and the water would be obtained from a Petal Gas affiliate and delivered through existing water supply piping and disposed of in existing disposal wells. Petal Gas states that the proposed total capacity of Cavern No. 12A is 8.2 Bcf, consisting of 5.0 Bcf of working gas and 3.2 Bcf of cushion gas. Petal Gas states the conversion of Cavern No. 12A will also increase its total maximum injection capability by 250 MMcf per day and will increase its peak deliverability by 600 MMcf per day.

9. Petal Gas also proposes to construct an approximately 1,525-foot-long, 16-inch-diameter natural gas pipeline, and related facilities, to connect Cavern 12A to Petal Gas's existing withdrawal header. Petal Gas states that the proposed new pipeline and temporary construction rights-of-way are located primarily on property owned by Petal Gas or its affiliates. Petal Gas states that only a short section of the pipeline will cross property owned by a third party.

B. Rates

10. Petal Gas states that it is currently fully subscribed on a firm basis for Cavern Nos. 3, 6, 7, 8 and 10. Petal Gas further states that from January 15, 2010 to January 26, 2010, it conducted a preliminary, non-binding open season seeking support for up to 5.0 Bcf of firm natural gas storage capacity that it projected would be available by September 1, 2011. According to Petal Gas, it received interest exceeding 5.0 Bcf of storage capacity, and continues to negotiate binding precedent agreements with interested parties. Petal Gas states that it believes the proposed capacity will be fully-subscribed and the majority of its prospective customers will require an in-service date in the fall of 2011.

11. Petal Gas states that it proposes no changes to its currently-effective FERC Gas Tariff or to the services that it offers. Petal Gas proposes to offer the same firm and interruptible storage services from its proposed Cavern No. 12A Conversion Project at market-based rates that it offers at its other storage facilities. Petal Gas currently offers services under the following rates: Firm Storage Service under Rate Schedules FSS and FSS-1 (lower priority), Interruptible Storage Service under Rate Schedule ISS, Advancing Service under Rate Schedule AVS, Firm Transportation Service under Rate Schedule FTS, and Interruptible Transportation Service under Rate Schedule ITS.

12. Therefore, Petal Gas requests authority to charge market-based rates for the storage services it proposes to provide through the Cavern 12A Conversion Project facilities. Petal Gas explains that in previous proceedings, the Commission approved its similar proposals to charge market-based rates for storage services.¹⁰ Petal Gas asserts that its market share, even with the proposed capacity additions, will be below the levels found to be acceptable by the Commission in 2008 in Docket No. CP08-66-000.¹¹ Petal Gas argues that it is unable to exert market power,¹² that its customers have many options for storage service, and that it faces competition from other companies that provide storage service and from the capacity release market for storage services, as well as from various alternatives to storage such as LNG, seasonal and swing contracts, and pipeline park and loan services.

13. Based on its position that it will not be able to exercise market power and should be allowed to continue charging market-based rates, Petal Gas also requests a waiver of the Commission's regulations requiring the submission of cost data. Accordingly, Petal Gas did not include Exhibits K, L, N and O to its application.

¹⁰ *Citing Petal Gas Storage Co.*, 64 FERC ¶ 61,190 (1993); *Petal Gas Storage Co.*, 86 FERC ¶ 61,224 (1999); *Petal Gas Storage, L.L.C.*, 90 FERC ¶ 61,243 (2000); *Petal Gas Storage, L.L.C.*, 102 FERC ¶ 61,243 (2003); *Petal Gas Storage, L.L.C.*, 118 FERC ¶ 61,253 (2007); *Petal Gas Storage, L.L.C.*, 124 FERC ¶ 61,066 (2008).

¹¹ *Petal Gas Storage, L.L.C.*, 124 FERC ¶ 61,066 at P 22-23.

¹² Petal Gas points out that its market power analysis is conservatively based on the aggregate of the storage capacity owned by all of Enterprise's subsidiaries operating natural gas storage facilities in the Gulf Coast region. It also includes the storage capacity of Petal Gas's Cavern Nos. 1 and 2, even though construction of these caverns has not yet commenced.

III. Notice and Interventions

14. Notice of Petal Gas's application was published in the *Federal Register* on February 23, 2010 (75 Fed. Reg. 8051). No interventions, comments, or protests were filed.

IV. Discussion

15. Petal Gas's proposed Cavern 12A Conversion Project consists of facilities that will be used to transport natural gas in interstate commerce; therefore, the proposed facilities will be subject to the NGA and the Commission's jurisdiction.

A. Certificate Policy Statement

16. The Commission's September 15, 1999 Certificate Policy Statement provides guidance as to how it will evaluate proposals for certificating new construction.¹³ 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 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 goal is to give appropriate consideration to the enhancement of competitive transportation alternatives, the possibility of overbuilding, 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.

17. Under this policy, the threshold requirement for pipelines proposing new projects is that the pipeline must be prepared to financially support the project without relying on subsidization from its existing customers. The next step is to determine whether the applicant has made efforts to eliminate or minimize any 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 route of the new pipeline. If residual adverse effects on these interest groups are identified after efforts have been made to minimize them, we 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

¹³*Certification of New Interstate Natural Gas Pipeline Facilities*, 88 FERC ¶ 61,227 (1999), *order on clarification*, 90 FERC ¶ 61,128, *order on clarification*, 92 FERC ¶ 61,094 (2000) (Certificate Policy Statement).

interests will we proceed to complete the environmental analysis where other interests are considered.

18. The Commission finds that Petal Gas has met the threshold requirement of the Certificate Policy Statement that existing customers not subsidize the costs of a new project. This will be the case because all of Petal Gas's existing customers receive storage service under contracts at market-based rates and these contracts will not change as a result of the Cavern 12A Conversion Project. Existing customers will continue to pay rates that will not be increased to include, or roll in, the costs of this project. Furthermore, as discussed below, the Commission is approving Petal Gas's request to charge customers on the proposed expansion project market-based rates; therefore, Petal Gas will assume the economic risks associated with the project's costs to the extent that any capacity is unsubscribed.

19. The Commission also finds that the Cavern 12A Conversion Project will have no adverse impact on Petal Gas's existing customers' service. Similarly, the proposed project will not adversely affect existing pipelines or natural gas storage providers in the market or their captive customers since the project will help meet a currently unserved market demand for storage. Additionally, the new storage facilities should benefit all customers by improving the flexibility and reliability of the storage service provided by Petal Gas. We also note that no storage company in Petal Gas's market area filed a protest in this proceeding.

20. With respect to the effect the project might have on nearby landowners in the area, we find that there will be few, if any, adverse impacts on such landowners, primarily because Cavern 12A is located on an existing well pad and no new acreage will be required for its conversion to natural gas storage. With regard to the interconnecting pipeline, except for a short section crossing a third party's property, the pipeline will be located on land owned by Petal Gas or an affiliate. Furthermore, as proposed, the short section of third-party property will be crossed via horizontally-controlled directional drilling due to potential conflicts with other utilities and, therefore, no surface disturbance will occur. The Commission's finds that to the extent there are minimal adverse impacts on existing customers, competing pipelines, or landowners, the benefits that will accrue from the project will outweigh those impacts.

21. Petal Gas has also demonstrated that there is substantial interest in the proposed new storage capacity on the part of potential customers, as evidenced by the response to its non-binding open season. Thus, there appears to be a market for the Cavern No. 12A Conversion Project. For all the reasons stated, the Commission finds that the Cavern No. 12A Conversion Project is required by the public convenience and necessity. The project will meet new market demand, will not be subsidized by existing customers, and will not result in significant impacts on the environment or landowners.

B. Market-Based Rates

22. Petal Gas requests authority charge market-based rates for the expanded storage services associated with the Cavern No. 12A Conversion Project.

23. While the Commission previously granted Petal Gas's requests to charge market-based rates for similar services, the last time it did so, in Docket No. CP08-66-000, it expressly conditioned its approval on the Commission's reexamination of Petal Gas's authorization to charge market-based storage rates for firm and interruptible storage if: (1) Petal Gas expands its storage capacity beyond the level authorized; (2) an affiliate increases storage capacity; (3) an affiliate links storage facilities to Petal Gas; or (4) Petal Gas, or an affiliate, acquires an interest in, or is acquired by, an interstate pipeline connected to Petal Gas.¹⁴ We required Petal Gas to notify the Commission within 10 days of any such change in circumstances that may alter its market-power status.¹⁵ Accordingly, in its application in this proceeding, Petal Gas submitted a market study showing that expansion of its storage facilities will not affect the Commission's previous determination that Petal Gas lacks significant market power in providing storage services.

24. Generally, the Commission evaluates requests to charge market-based rates for storage under the analytical framework of the *Alternative Rate Policy Statement*.¹⁶ This framework has two principle purposes: (1) to determine whether the applicant can withhold or restrict services and, as a result, increase prices by a significant amount for a significant period of time, and (2) to determine whether the applicant can discriminate unduly in price or terms and conditions of service.¹⁷ To find that an applicant cannot withhold or restrict services, significantly increase prices over an extended period, or discriminate unduly, the Commission must find that there is a lack of market power¹⁸

¹⁴ *Petal Gas Storage, L.L.C.*, 124 FERC ¶ 61,066 at P 24.

¹⁵ *Id.*

¹⁶ *Alternatives to Traditional Cost-of-Service Ratemaking for Natural Gas Pipelines and Regulation of Negotiated Transportation Services of Natural Gas Pipelines*, 74 FERC ¶ 61,076 (1996) (*Alternative Rate Policy Statement*). See also *Rate Regulation of Certain Natural Gas Storage Facilities*, Order No. 678, FERC Stats. & Regs. ¶ 31,220 (2006), *order on clarification and reh'g*, Order No. 678-A, 117 FERC ¶ 61,190 (2006).

¹⁷ *Orbit Gas Storage, Inc.*, 126 FERC ¶ 61,095, at P 19 (2009).

¹⁸ The Commission defines "market power" as "the ability of a pipeline to

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because customers have good alternatives¹⁹ or that the applicant or Commission can mitigate the market power with specified conditions.²⁰

25. The Commission's analysis of whether an applicant has the ability to exercise market power consists of three major steps. First, the Commission reviews whether the applicant has specifically and fully defined the relevant markets²¹ to determine which specific products or services are identified and the suppliers of those products and services that provide good alternatives to the applicant's ability to exercise market power.²² Additionally, as part of the first step, the applicant must identify the relevant geographic market.²³ Second, the Commission measures an applicant's market share and market concentration.²⁴ Third, the Commission evaluates other relevant factors, such as ease of entering the market. In prior orders, the Commission has approved requests to charge market-based rates for storage services based on findings that proposed projects could not exercise market power due to the small size of the projects, the applicants' anticipated shares of the market were small, and there were numerous competitors in the relevant market area.²⁵

profitably maintain prices above competitive levels for a significant period of time." *See Alternative Rate Policy Statement*, 74 FERC ¶ 61,076 at 61,230.

¹⁹ A good alternative is an alternative to the proposed project that is available soon enough, has a price low enough, and has a quality high enough to permit customers to substitute the alternative for an applicant's service. *Id.* at 61,231.

²⁰ Generally, an applicant will include in its application a market power study in support of its request, as Petal Gas has done in this case. *See* Application, Exhibit Z1. A market power study usually defines the relevant products and geographic markets, measures market shares and concentrations, and evaluates other factors such as replacement capacity, ease of entry, and non-storage alternatives.

²¹ Relevant product markets consists of the applicant's service and other services that are good alternatives to the applicant's services. *See Alternative Rate Policy Statement*, 74 FERC ¶ 61,076 at 61,231.

²² *Id.*

²³ *Id.* at 61,232-34.

²⁴ *Id.* at 61,234.

²⁵ *See, e.g., Port Barre Investments, L.L.C. d/b/a Bobcat Gas Storage*, 116 FERC ¶ 61,052 (2006); *Pine Prairie Energy Center, LLC*, 109 FERC ¶ 61,215 (2004); and *Egan*

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26. In support of its request, Petal Gas filed, as Exhibit Z1 to its application, a market power study based on the criteria established in the *Alternative Rate Policy Statement*. Petal Gas's market power study defines the relevant product and geographic markets, measures market share and concentration, looks at changes that have occurred since its last market power analysis, and evaluates other relevant factors. Petal Gas identifies the relevant product market as firm and interruptible natural gas storage services. Petal Gas identifies the relevant geographic market as Alabama, Louisiana, Mississippi, and portions of east and south Texas (the Gulf States region).

27. Attachment 1 of Petal Gas's market power study summarizes working gas capacity market share and concentration and working gas capacity by owner and field within the Gulf States region. Attachment 2 shows peak deliverability market share and concentration and peak deliverability by owner and field within the Gulf States region. Attachment 3 lists 38 proposed expansions of existing storage facilities and proposed developments of new facilities in the Gulf States region.²⁶ Petal Gas states that the calculations of market share and market concentration presented in Attachments 1 and 2 only consider those storage facilities that are not designated specifically for the use of the corporate parent. Furthermore, Petal Gas states that the analysis reflected in Attachments 1 and 2 includes only those storage facilities that are currently operational or have nearly completed construction (i.e., are expected to be in-service in 2010) and does not include the 38 additional projects listed in Attachment 3 that could also enter the market to compete with Petal Gas's proposed expansion, although some of these facilities may be in service when the proposed expansion comes online. Attachments 1 and 2 also include two of Petal Gas's caverns (Cavern Nos. 1 and 2), with a total of 10 Bcf of working gas capacity and 1.0 Bcf of peak deliverability, that have been certificated by the Commission,²⁷ but are not currently in service and are not expected to be in service prior to the proposed expansion herein. Petal Gas states that all storage entities that are affiliated with one another have been grouped at the corporate level, including for purposes of this analysis, Petal Gas and its affiliated facilities.

Hub Partners, L.P., 99 FERC ¶ 61,269 (2002).

²⁶ Petal states that the natural gas storage data used to conduct the analyses presented in Attachments 1 through 3 was based on the information presented in Intelligence Press' "Natural Gas Storage and LNG Facilities in the United States and Canada" published in 2004, as updated through various FERC filings, trade press research, information on company websites, and other publicly-available materials.

²⁷ *Petal Gas Storage, L.L.C.*, 124 FERC ¶ 61,066.

28. Petal Gas states that its market power study is conservative and narrowly defined. Petal Gas states its market power study is based on the aggregate of the storage capacity owned by its parent company, Enterprise (including Petal Gas's facilities, the Hattiesburg Gas Storage facility, the Wilson storage facility, and the Pontchartrain Grand Bayou facility), and does not include close substitutes to Petal Gas's and its affiliates' storage services available in the Gulf States region, such as pipeline capacity, local gas production and LNG supplies. In addition, as noted above, Petal Gas's market power study includes two of Petal Gas's caverns (Cavern Nos. 1 and 2) that have been certificated by the Commission, but are not currently in-service.

29. A company can exercise market power because it has a large market share so it can raise prices acting alone or because it can act with others to raise prices.²⁸ Here, with relatively small market shares, as Attachments 1 and 2 of Petal Gas's market power analysis show, Petal Gas will not be able to exert market power in the relevant market area. Including Petal Gas's current operations and the storage capacity that will become available from the project proposed in this proceeding, Attachment 1 shows that the storage facilities in the Gulf States geographic market have a total working gas capacity of 973,959 MMcf, with Enterprise's (including its affiliates and Petal Gas) working gas capacity comprising 46,273 MMcf, or 4.8 percent of the total. Attachment 2 shows that the storage facilities in the Gulf States geographic market have a total peak deliverability of 37,310 MMcf per day, with Enterprise's (including its affiliates and Petal Gas) peak deliverability comprising 4,895 MMcf per day, or 13.1 percent of the total. In addition, Attachment 3 shows that an additional 494,840 MMcf of working gas capacity and 24,922 MMcf per day of peak day deliverability are proposed at 38 other existing or new facilities in the Gulf States region. Therefore, Petal Gas is unlikely to be able to exercise market power with its small market shares.

30. The Commission applies the Herfindahl-Hirschman Index (HHI), which is used to analyze whether a competitive market exists for a specific product, to determine market concentration for gas pipeline and storage markets.²⁹ The *Alternative Rate Policy Statement* explains that a low HHI (generally less than 1,800) indicates that sellers cannot exert market power because customers have sufficiently diverse alternatives in the relevant market. While a low HHI suggests a lack of market power, a high HHI (generally greater than 1,800) requires closer scrutiny to determine a seller's ability to exert market power.³⁰ Attachment 1 of Petal Gas's market power analysis, which

²⁸ See *Alternative Rate Policy Statement*, 72 FERC ¶ 61,076 at 61,234.

²⁹ See *Alternative Rate Policy Statement*, 72 FERC ¶ 61,076 at 61,235.

³⁰ See *Rate Regulation of Certain Natural Gas Storage Facilities*, Order No. 678, FERC Stats. & Regs. ¶ 31,220, at P 55 (2006) (noting that the Commission is not

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includes the proposed expansion capacity, shows that its HHI is 727 for working gas capacity and Attachment 2 shows that its HHI is 701 for peak day deliverability. These measures of market concentration are well below the Commission's threshold level of 1,800, indicating that Petal Gas will not have market power in the relevant Gulf States region after the proposed expansion.

31. Finally, Petal Gas points to other factors that support the conclusion that it will not be able to exert market power in the Gulf States region and that there are no significant barriers to entry in the Gulf States region. Petal Gas states there have been 37 separate, unaffiliated storage expansions or new storage facilities, not including Petal Gas, certificated by the Commission in the Gulf States region between March, 2000 and October, 2009³¹ and there are numerous proposed storage projects in the relevant market as well. For example, as Petal Gas shows in Attachment 3, there are at least 38 additional storage projects that have been proposed in the Gulf States region totaling nearly 500 Bcf of working gas capacity and 25 Bcf per day of deliverability, which, if constructed, would add over 50 percent to the existing working gas capacity and over 67 percent to the existing deliverability in the Gulf States region. Petal Gas also asserts that it does not own the transportation facilities that are required to deliver the natural gas from the storage cavern to the end-users, and some of the transportation service providers maintain their own storage facilities.³²

32. In view of these considerations, and the fact that Petal Gas's request for market-based rates is unopposed, the Commission finds that Petal Gas may continue to charge market-based rates for its storage services, including the additional services that are the subject of this proceeding. However, consistent with the Commission's finding in Docket No. CP08-66-000, we will condition this finding on a requirement that Petal Gas notify the Commission of future circumstances that may significantly affect its market-

changing the 1,800 HHI threshold level).

³¹ See FERC, *Certificated Storage Projects Since 2000 for Expansion of or New Capacity* (May 2010), available at <http://www.ferc.gov/industries/gas/indus-act/storage/certificated.pdf>.

³² Petal Gas also alleges that there are numerous alternatives to storage available to customers that have not been included in the market power study, including local natural gas production, LNG import and peak-shaving facilities, pipeline park and loan services, and seasonal/swing services provided by marketers, and there is an active capacity release market on interstate pipelines operating in the Gulf States region. However, Petal Gas's market power study did not analyze these purported alternatives, nor did we consider them in making our decision on Petal Gas's proposal.

power status.³³ Thus, the Commission's approval of continued market-based rate authority is subject to reexamination if: (1) Petal Gas expands its storage capacity beyond the level authorized in this proceeding; (2) an affiliate increases storage capacity; (3) an affiliate links storage facilities to Petal Gas; or (4) Petal Gas, or an affiliate, acquires an interest in, or is acquired by, an interstate pipeline connected to Petal Gas. Accordingly, Petal Gas shall notify the Commission within 10 days of any such change in circumstances that may alter Petal Gas's market-power status. The notification shall include a detailed description of the new facilities and their relationship to Petal Gas's operations.

C. Requests for Waivers

33. Petal Gas requests waiver of the Commission's regulations requiring the submission of cost data based on its position that it will not be able to exercise market power and therefore should be allowed to continue charging market-based rates. Accordingly, Petal Gas did not include Exhibits K, L, N and O to the application.

34. The Commission will grant Petal Gas's request for waiver of section 157.14(a) of the Commission's regulations requiring it to submit Exhibits K (Cost of Facilities), Exhibit L (Financing), Exhibit N (Revenues, Expenses, and Income), and Exhibit O (Depreciation and Depletion) as a part of its certificate application to support cost-based rates. We have previously waived these requirements for Petal Gas when we approved its proposals for market-based rates, as we are doing in this proceeding, because the information in these exhibits is not relevant where there is not need to calculate cost-based rates.³⁴ The Commission will also waive section 157.6(b)(8) requiring the filing of detailed cost-based data, section 284.7(e) requiring a pipeline to charge reservation charges and to utilize the straight fixed-variable rate design, Part 201's accounting and annual reporting requirements and sections 260.1 and 260.2 (Form Nos. 2 and 2-A), respectively, of the Commission's regulations because these requirements are also inapplicable when market-based rates are charged. However, these waivers do not extend to the information on pages 520 and 520a of Form No. 2-A, relating to gas volumes, because this data is necessary for the Commission's assessment of annual charges.³⁵ Pipelines providing storage services, like Petal Gas, are required to file this

³³ *Petal Gas Storage, L.L.C.*, 124 FERC ¶ 61,066 at P 24. *See also Copiah County Storage Company*, 99 FERC ¶ 61,316 (2002); *Egan Hub*, 99 FERC ¶ 61,269 (2002).

³⁴ *Petal Gas Storage, L.L.C.*, 124 FERC ¶ 61,066 at P 39.

³⁵ *See, e.g., Dominion Cove Point LNG, LP*, 115 FERC ¶ 61,337, at P 147 (2006) (storage provider required to pay Annual Charge Adjustment on the volumes transported or delivered).

information.³⁶ Further, the Commission will grant a waiver of section 157.14(a)(10) requiring the submission of gas supply data, since such information does not apply to storage operations, and section 157.14(a)(11) requiring submission of market data, since such information does not apply to market-based rates storage operations.

35. However, the above waivers are subject to review in the event that Petal Gas's market power or market-based rates require reexamination. The Commission's granting of these waivers is also conditioned upon Petal Gas maintaining sufficient records of cost and revenue data consistent with the Uniform System of Accounts so that it will be available if the Commission requires Petal Gas to produce this information in the future.

D. Engineering

36. Commission staff completed an engineering analysis of Petal Gas's proposed Cavern No. 12A Conversion Project. Based on this analysis, we conclude that the facilities are properly designed to provide a total of 8.2 Bcf of total storage capacity (5.0 Bcf working gas and 3.2 Bcf cushion gas). Further, we conclude that the natural gas facilities proposed by Petal Gas are properly designed to inject up to 250 MMcf per day and withdraw up to 600 MMcf per day. The approval of the Cavern No. 12A Conversion Project shall be subject to the conditions listed in Appendix A to this order.

E. Environmental

37. On March 19, 2010, the Commission issued a *Notice of Intent to Prepare an Environmental Assessment for the Proposed Cavern 12A Conversion Gas Storage 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.

38. In response to our NOI, we received one letter of comment, from the Alabama-Coushatta Tribe of Texas. The Tribal Historic Preservation Officer indicated that the project is outside of the tribe's area of interest.

39. To satisfy the requirements of the National Environmental Policy Act of 1969,³⁷ our staff prepared an environmental assessment (EA) for Petal Gas's proposal. The analysis in the EA addresses geology, soils, water resources and wetlands, vegetation and

³⁶ See, e.g., *SG Resources Mississippi, L.L.C.*, 118 FERC ¶ 61,048, at P 29 (2007) and *Central New York Oil & Gas Company, LLC*, 116 FERC ¶ 61,277, at P 39 (2006).

³⁷ 42 U.S.C. §§ 4321-4307f (2006).

wildlife, sensitive species, cultural resources, land use, socioeconomics, air quality and noise, safety and reliability, and alternatives. The EA was placed into the public record on July 15, 2010.

40. Based on the analysis in the EA, we conclude that if constructed and operated in accordance with Petal Gas's application and supplements, and in compliance with the environmental conditions in the 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.

41. 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.³⁸

V. Conclusion

42. For all of the reasons discussed above, the Commission concludes that the Cavern No. 12A Conversion Project is required by the public convenience and necessity and authorizes Petal Gas to undertake the construction and operation of the project facilities, subject to the discussion herein, the engineering and environmental conditions set forth in the Appendices, and the ordering paragraphs to this order.

43. 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) Petal Gas is issued a certificate authorizing it to construct and operate the facilities that are part of the Cavern No. 12A Conversion Project, as more particularly described herein and in Petal Gas's application.

(B) The authorization issued in Ordering Paragraph (A) is conditioned on Petal Gas's compliance with all applicable Commission regulations under the Natural Gas Act, particularly the general terms and conditions set forth in Parts 154, 157, and 284, and

³⁸See, 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).

paragraphs (a), (c), (e), and (f) of section 157.20 of the regulations, except that the requirements of section 157.20(c)(3) are waived.

(C) Pursuant to section 157.20(b) of the Commission's regulations, the facilities authorized in Ordering Paragraph (A) must be constructed and placed in service within three years of the date of the final order in this proceeding.

(D) The authorization issued in Ordering Paragraph (A) is conditioned upon Petal Gas's compliance with the engineering and environmental conditions set forth in Appendices A and B of this order.

(E) Petal Gas's request for authorization to charge market-based storage rates for firm and interruptible storage service is granted subject to the conditions discussed in this order, including the condition to reexamine Petal Gas's market power and market-based storage rate authority in the event that: (1) Petal Gas expands its storage capacity beyond the amount authorized in this proceeding; (2) an affiliate increases storage capacity; (3) an affiliate links storage facilities to Petal Gas; or (4) Petal Gas, or an affiliate, acquires an interest in, or is acquired by, an interstate pipeline connected to Petal Gas. Petal Gas shall notify the Commission within 10 days of any such change in circumstances that may alter Petal's market-power status.

(F) Petal Gas's request for waiver of Commission's regulations that have been deemed inapplicable to storage providers with market-based rates is granted, as discussed in this order.

(G) Petal Gas is granted waiver of the applicable portions of Parts 201 and 260 of the Commission's regulations; however, the waiver does not extend to the FERC's assessment of annual charges and Petal Gas is required to maintain records to separately identify the original cost and related depreciation on its gas storage facilities and to file pages 520 and 520a of Form 2-A for calculation of the ACA.

(H) Petal Gas shall file any tariff revisions necessary to comply with the requirements contained in the body of this order no more than 60 days or less than 30 days prior to the commencement of service under the proposed expansion.

(I) Petal Gas 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 Petal Gas. Petal Gas shall file written confirmation of such notification with the Secretary of the Commission within 24 hours.

By the Commission.

(S E A L)

Nathaniel J. Davis, Sr.,
Deputy Secretary.

Appendix A

Engineering Conditions

This authorization includes the following conditions:

1. The maximum inventory of natural gas stored in Petal Gas's Cavern No. 12A Conversion Project shall not exceed the certificated levels of 8.2 Bcf at 14.73 psia and 60° F for Cavern No. 12A; the maximum gas storage shut-in stabilized pressure gradient of each cavern shall not exceed 0.85 psi/ft. The minimum pressure gradient shall be limited to 0.2 psi/ft.
2. The final gas storage operating capacity of the cavern, working gas capacity, cushion gas capacity and the minimum pressure shall be determined after the facility's operating parameters are evaluated and filed with the Commission (include data and work papers to support the actual operating capacity determination).
3. Before commencing gas storage operations, Petal Gas shall:
 - a. Conduct a Mechanical Integrity Test for the cavern, and file the results with the Commission, before initiation of each well/cavern to natural gas storage;
 - b. File with the Commission copies of the latest interference tracer surveys, or other testing or analysis on each cavern to verify the lack of communication between the caverns;
 - c. Establish and maintain a subsidence monitoring network over the proposed caverns storage area;
 - d. Determine the volume of the rubble at the base of the cavern, including the methodology for determining such volume;
 - e. Provide the Commission geological cross section (when additional data is obtained) through the total project area showing all geologic units; and
 - f. Assemble, test and maintain an emergency shutdown system.
4. Twice annually, Petal Gas shall conduct a leak detection test during storage operations to determine the integrity of each cavern, well bore, casing and wellhead, and file the results with the Commission until one year after the storage inventory volume reaches or closely approximates the full authorized capacity, unless otherwise ordered by the Commission.
5. Each cavern's well shall be periodically logged to check the integrity of each casing string. Additionally, every five years Petal Gas shall conduct sonar surveys of the caverns to monitor their dimensions and shape, including the cavern roof,

and to estimate pillar thickness between openings throughout the storage operations, and file results with the Commission.

6. Petal Gas shall conduct an annual inventory verification study on each cavern, and file results with the Commission.
7. Petal Gas shall operate the Cavern No. 12A Conversion Project in such a manner as to prevent gas loss or migration.
8. Petal Gas shall file with the Commission semi-annual reports (to coincide with the maximum and minimum storage pressures) containing the following information in accordance with section 157.214 (c) of the Commission's regulations (volumes shall be stated at 14.73 psia and 60 °F, and pressures shall be stated in psia):
 - a. The daily volume of natural gas injected into and withdrawn.
 - b. The inventory of natural gas and shut-in wellhead pressure for each cavern at the end of each reporting period.
 - c. The maximum daily injection and withdrawal rates experienced for the storage field during the reporting period; and, the average working pressure on such maximum days taken at a central measuring point where the total volume injected or withdrawn is measured.
 - d. The results of any tests performed to determine the actual size, configuration, or dimensions of each storage cavern.
 - e. A discussion of current operating problems and conclusions.
 - f. Other data or reports which may aid the Commission in the evaluation of the storage project.
9. Petal Gas shall continue to file the above semi-annual reports in accordance with section 157.214(c) of the Commission's regulations for a period of one year following the date facility operation at maximum level is initiated.

Appendix B

Environmental Conditions

As recommended in the EA, this authorization includes the following conditions:

1. Petal Gas 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 environmental assessment (EA), unless modified by the Order. Petal Gas 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 Office of Energy Projects (OEP) before using that modification.
2. The Director of OEP has delegated 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 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 any construction**, Petal Gas shall file an affirmative statement with the Secretary, certified by a senior company official, that all company personnel, environmental inspectors (EIs), and contractor personnel will be informed of the EI's authority and have been or will 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 soon as they are available, and before the start of construction**, Petal Gas 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 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. Petal Gas 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, 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 extra workspace allowed by Petal Gas's Upland Erosion Control, Revegetation, and Maintenance Plan, and/or 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
 - d. agreements with individual landowners that affect other landowners or could affect sensitive environmental areas.
6. **Within 60 days of the acceptance of the Certificate and before construction** begins Petal Gas shall file an Implementation Plan with the Secretary for review and written approval by the Director of OEP. Petal Gas must file revisions to the plan as schedules change. The plan shall identify:
 - a. how Petal Gas will implement the construction procedures and mitigation measures described in its application and supplements (including responses to staff data requests), identified in the EA, and required by the Order;
 - b. how Petal Gas will 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;

- c. the number of EIs assigned per spread, and how the company will ensure that sufficient personnel are available to implement the environmental mitigation;
 - d. company personnel, including EIs and contractors, who will receive copies of the appropriate material;
 - e. the location and dates of the environmental compliance training and instructions Petal Gas will give to all personnel involved with construction and restoration, and refresher training as the project progresses and personnel change, with the opportunity for OEP staff to participate in the training sessions;
 - f. the company personnel (if known) and specific portion of Petal Gas's organization having responsibility for compliance;
 - g. the procedures (including use of contract penalties) Petal Gas will follow if noncompliance occurs; and
 - h. 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 environmental compliance training of onsite personnel;
 - (3) the start of construction; and
 - (4) the start and completion of restoration
7. Beginning with the filing of its Implementation Plan, Petal Gas shall file updated status reports with the Secretary on a bi-weekly basis until all construction and restoration activities are complete. On request, these status reports will also be provided to other federal and state agencies with permitting responsibilities. Status reports shall include:
- a. an update on Petal Gas's efforts to obtain the necessary federal authorizations;
 - b. the 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;
 - c. a listing of all problems encountered and each instance of noncompliance observed by the Environmental Inspectors 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);
 - d. a description of the corrective actions implemented in response to all instances of noncompliance, and their cost;
 - e. the effectiveness of all corrective actions implemented;

- f. a description of any landowner/resident complaints which may relate to compliance with the requirements of the Order, and the measures taken to satisfy their concerns; and
 - g. copies of any correspondence received by Petal Gas from other federal, state, or local permitting agencies concerning instances of noncompliance, and Petal's response.
8. Petal Gas must receive written authorization from the Director of OEP **before placing the project into service**. Such authorization will only be granted following a determination that rehabilitation and restoration of the right-of-way and other areas affected by the project are proceeding satisfactorily.
9. **Within 30 days of placing the authorized facilities in service**, Petal Gas shall file an affirmative statement with the Secretary, certified by a senior company official:
- a. that the facilities have been constructed and installed in compliance with all applicable conditions, and that continuing activities will be consistent with all applicable conditions; or
 - b. identifying which of the Certificate conditions Petal Gas has complied with or will 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.
10. **Prior to receiving written authorization from the Director of OEP to commence construction of project facilities**, Petal Gas shall file with the Secretary documentation that it has received all authorizations required under federal law (or evidence of waiver thereof).