

147 FERC ¶ 61,120
UNITED STATES OF AMERICA
FEDERAL ENERGY REGULATORY COMMISSION

Before Commissioners: Cheryl A. LaFleur, Acting Chairman;
Philip D. Moeller, John R. Norris,
and Tony Clark.

Arlington Storage Company, LLC

Docket No. CP13-83-000

ORDER ISSUING CERTIFICATE AND REAFFIRMING MARKET-BASED RATES

(Issued May 15, 2014)

1. On February 26, 2013, Arlington Storage Company, LLC (Arlington) filed an application pursuant to section 7(c) of the Natural Gas Act (NGA)¹ and Part 157 of the Commission's regulations² for authorization to expand its Seneca Lake Storage Project (Seneca Lake Project), located in Schuyler County, New York. The proposed expansion project, referred to as the Gallery 2 Expansion Project (Gallery 2 Project), involves the conversion of two interconnected bedded salt caverns (collectively known as Gallery 2), previously used for liquefied petroleum gas (LPG) storage, to natural gas storage. The Gallery 2 Project would increase the working gas capacity of Seneca Lake Project from 1.45 billion cubic feet (Bcf) to 2.00 Bcf. Arlington also requests the Commission to reaffirm Arlington's authorization to charge market-based rates for its firm and interruptible storage and hub services.
2. The Commission grants the requested certificate authorization, subject to the conditions described herein. The Commission also approves Arlington's request to reaffirm its market-based rate authority, as more fully discussed and conditioned below.

¹ 15 U.S.C. § 717f (c) (2012).

² 18 C.F.R. Part 157 (2013).

I. Background

3. Arlington, a wholly-owned subsidiary of Crestwood Equity Partners LP (Crestwood),³ is a natural gas company organized and existing under the laws of Delaware and is a developer of underground natural gas storage facilities in New York. Arlington offers firm and interruptible natural gas storage services in interstate commerce through the Seneca Lake Project.⁴ The Seneca Lake Project is located in Schuyler County, New York, on property owned by Arlington and abutted by property owned by Arlington's affiliate, U.S. Salt, LLC, (U.S. Salt) a salt mining company. The Seneca Lake Project interconnects with Dominion Transmission, Inc. and Millennium Pipeline Company, LLC, interstate pipeline systems.

A. Proposal

4. The Seneca Lake Project, which is within the Watkins Glen Brine Field, currently consists of two, interconnected, bedded salt caverns, known as Gallery 1, connected to a compressor station by a 16-inch-diameter pipeline. The Seneca Lake Project has a working gas capacity of 1.45 Bcf, with maximum daily injection and withdrawal capabilities of 72,500 dekatherms (Dth) per day and 145,000 Dth per day, respectively.

5. Arlington proposes to expand its Seneca Lake Project by converting two other existing interconnected bedded salt caverns, Gallery 2, previously used for LPG storage, to natural gas storage service. When the conversion is complete, the Gallery 2 caverns will have a total working gas capacity of approximately 0.55 Bcf, resulting in the Seneca Lake Project having a total working gas capacity of 2.00 Bcf and a total natural gas storage capacity of 3.09 Bcf. Arlington does not propose to change its certificated maximum daily injection or withdrawal rates.

6. The Gallery 2 Project construction and operation will occur on lands owned by Arlington. As part of the expansion project Arlington proposes to: (1) construct approximately 170 feet of 16-inch-diameter pipeline and 330 feet of 8-inch-diameter pipeline to connect Well Nos. 30A and 31A to its existing 16-inch-diameter pipeline; (2) install a 400 horsepower (hp) electric motor-driven compressor, near the Gallery 2

³ In May 2013, Crestwood acquired Inergy, LP, previous parent company of Arlington.

⁴ Arlington received Commission authorization to acquire the Seneca Lake Project in 2010, and completed its acquisition in 2011. *Arlington Storage Co., LLC*, 132 FERC ¶ 61,171 (2010) (2010 Order).

wellheads, to be used for gas injections during the debrining process and to achieve the maximum allowable operating pressure (MAOP) on injections once the caverns are placed into natural gas storage service; (3) construct temporary debrining facilities, consisting of a 75 hp electric motor brine pump and brine pipeline; (4) install electric and instrument air lines connecting the Gallery 2 caverns to the Seneca Lake Project compressor station; and (5) use Cavern Well No. 45 for debrining and future monitoring of the caverns.⁵

7. Currently, the Gallery 2 caverns have five existing wellheads, Cavern Well Nos. 30, 30A, 31, 31A, and 45 but Arlington will only use 30A and 31A as injection/withdrawal wells, and Cavern well No. 45 as the observation well for the Gallery 2 Project. Cavern Well Nos. 30 and 31 will be permanently plugged and abandoned.⁶ As noted above, Cavern Well No. 45 will be initially used to debrine Gallery 2 and be used as an observation well going forward. In 2012, Arlington drilled Cavern Well Nos. 30A and 31A prior to the filing of this application, mistakenly assuming it was acting under its blanket certificate authority.⁷ Arlington now asks for certification of these wells as part of the Gallery 2 Project.

8. The Gallery 2 caverns are currently full of brine. The debrining process involves injecting natural gas into Well Nos. 30A and 31A to displace the brine from the caverns through Cavern Well No. 45. Arlington estimates that it will remove one million barrels

⁵ We note that Arlington also requested authorization to plug and abandon two of its existing wells (Well Nos. 30 and 31) which were formerly used in the operation of the Gallery 2 caverns' brine production and LPG storage operation. Since these wells were never certificated or used for jurisdictional purposes, no abandonment authorization is required.

⁶ Cavern Well Nos. 30, 31, and 45 were plugged in 1989 when LPG service was discontinued, Footnote 2 of application. Arlington reopened the wells for the purpose of evaluating each well's suitability for use in natural gas operation.

⁷ Inasmuch as Arlington's construction actions associated with the Gallery 2 expansion were carried out without appropriate authorization from the Commission, we find that Arlington violated section 7(c) of the NGA and its Part 157 blanket construction certificate issued in Docket No. CP10-99-000. However, since Arlington acted in good faith based on its incorrect interpretation of the existing regulations and neither customers nor the environment were harmed by the activities, we find that no enforcement action is necessary with respect to the prior activities.

of brine from Gallery 2. The brine will be conveyed to U.S. Salt's existing brine processing facilities through Arlington's proposed temporary brine pipeline.

9. Arlington states that the Gallery 2 Project will increase the Seneca Lake Project's high deliverability gas storage capacity by roughly one-third. Arlington contends that the added storage capacity will enhance reliability by allowing more gas to be delivered from storage directly into a highly weather-sensitive market area on peak days.

10. Arlington held a non-binding open season from March 5 to March 29, 2013, for 0.55 Bcf of expansion firm storage capacity at the Seneca Lake Project.⁸ Arlington received expressions of interest from six prospective customers in the total amount of 6.2 Bcf, more than eleven times the amount of firm storage capacity offered.⁹ Arlington states that it is evaluating the open season results and plans to commence negotiations for rates and terms of service with qualified prospective customers.¹⁰

B. Requests for Waivers

11. Because it requests affirmation of its market-based rate authority, Arlington requests that the Commission waive certain filing, accounting, and reporting requirements including: (1) section 157.6(b)(8) (applicants to submit cost and revenue data); (2) sections 157.14(a)(13), (14), (16), and (17) (cost-based exhibits); (3) section 157.14(a)(10) (gas supply data); (4) the accounting and reporting requirements of Part 201 and sections 260.1 and 260.2 (Form Nos. 2 and 2A); (5) section 284.7(e) (reservation charge); and (6) section 284.10 (straight fixed-variable rate design methodology).

II. Notice, Interventions, and Comments

12. Notice of Arlington's application was published in the *Federal Register* on March 12, 2013 (78 Fed. Reg. 15,712). Timely, unopposed motions to intervene and comments in opposition were filed by the Damascus Citizens for Sustainability, Inc., GasFree

⁸ In conjunction with its open season, Arlington also provided customers that hold firm storage service agreements with the Seneca Lake Project an opportunity to turn back capacity, but received no requests to do so.

⁹ Arlington's June 3, 2013 Response to Staff's Engineering and Rates Data Request at 8, response (b).

¹⁰ Arlington's April 10, 2013 Response to Initial Round of Comments on Application at Attachment A, Submission of Open Season Results.

Seneca,¹¹ and NYH20, Inc. Timely, unopposed motions to intervene are granted by operation of Rule 214 of the Commission's Rules of Practice and Procedure.¹² Over 400 people filed comments in opposition to the project. Many of these comments were specifically about an adjacent, non-jurisdictional LPG project (Finger Lakes Project) proposed by Finger Lakes LPG Gas Storage, LLC, an affiliate of Arlington. That project is under evaluation by the New York State Department of Environmental Conservation (NYSDEC).¹³ While the Gallery 2 Project is not associated with the Finger Lakes Project, the two projects are proposed to be located in the same salt formation.

13. The New York Public Service Commission, Pivotal Utility Holdings, PSEG Resources & Trade, LLC, and Peter King filed untimely motions to intervene. Mr. King included comments with his motion to intervene, raising environmental issues. We will grant these late-filed motions to intervene, since to do so at this stage of the proceeding will not unduly delay, disrupt, or otherwise prejudice the proceeding or other parties.¹⁴

III. Discussion

14. Since the proposed facilities will be used to transport natural gas in interstate commerce, subject to the jurisdiction of the Commission, the construction and operation of the facilities are subject to the sections 7(c) and (e) of the NGA and to the Commission's regulations.¹⁵

A. Certificate Policy Statement

15. The Commission's Certificate Policy Statement provides guidance as to how we will evaluate proposals for new construction.¹⁶ The Certificate Policy Statement

¹¹ Earthjustice files on behalf of Gas Free Seneca.

¹² 18 C.F.R. § 385.214(c) (2013).

¹³ NYSDEC filed a motion to intervene but withdrew its intervention on April 26, 2013 when it asked for Cooperating Agency Status.

¹⁴ See 18 C.F.R. § 385.214(d) (2013).

¹⁵ 15 U.S.C. § 717f (2012).

¹⁶ *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).

establishes 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 natural gas 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, subsidization by existing customers, the applicant's responsibility for unsubscribed capacity, the avoidance of unnecessary disruptions of the environment, and the unneeded exercise of eminent domain in evaluating construction of new natural gas facilities.

16. Under this policy, the threshold requirement for natural gas companies proposing new projects is that the applicant 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 storage facilities in the market and their captive customers, or landowners and communities affected by the construction. If residual adverse effects on these interest groups are identified after efforts have been made to minimize them, the Commission will evaluate the project by balancing the evidence of public benefits to be achieved against the residual adverse effects. This is essentially an economic test. Only when the benefits outweigh the adverse effects on economic interests will the Commission proceed to complete the environmental analysis where other interests are considered.

17. As indicated above, the threshold requirement under the Certificate Policy Statement is that the applicant must be prepared to financially support the project without relying on subsidization from its existing customers. As authorized below, Arlington will provide services from the Gallery 2 Project at market-based rates. As a consequence, Arlington will assume all financial risk associated with the operation of Gallery 2 at the Seneca Lake Facility and there can be no subsidization of the new service by any existing customers. Thus, the Commission finds that Arlington has satisfied the no subsidy threshold requirement of the Certificate Policy Statement.

18. The Gallery 2 Project will not have adverse impacts on existing storage facilities or their customers, since the project is located in a competitive market area in which competitive alternatives exist. With respect to the project's impacts on landowners and communities, Arlington states in its application that all construction and operation of the project will be located on lands owned by Arlington, and surrounded by lands owned by Arlington's affiliate, U.S. Salt.¹⁷ Arlington asserts that all project facilities are located

¹⁷ Arlington's Application at 13.

well away from property of adjacent landowners and from any noise sensitive areas.¹⁸ Furthermore, as discussed below, the construction for this project will be minimal as the caverns already exist and the majority of the facilities are either underground or temporary.

19. Gas Free Seneca asserts that Arlington's non-binding expressions of interest are not enough to establish a need for the facility.¹⁹ Gas Free Seneca also states that Arlington has not shown a need for the project because it did not establish that the natural gas stored in Gallery 2 would be used to meet seasonal peak-day demands. Arlington states that after its open season, it has potential customers for over eleven times the amount of firm storage capacity proposed at the storage facility.²⁰ While Arlington has no precedent agreements, Arlington contends that the expressions of interest demonstrate a market demand and need for the project. Under the Certificate Policy Statement, we do not require an applicant to submit precedent agreements or service agreements with its certificate application in order to demonstrate the need for a project.²¹ Nor do we require a demonstration that gas transported will be used for any specific purpose. Arlington held an open season and received expressions of interest for over eleven times the amount of capacity available at the project. Notwithstanding that no precedent agreements have been signed, the response demonstrates a significant market interest in the availability of additional Northeast market area storage. We find that Arlington has satisfied our requirements for demonstrating a need for the project.

20. Based on the above findings, the Commission concludes that Arlington has demonstrated sufficient need for the project, given it will have no identifiable adverse impacts on existing customers, other pipelines, landowners, or communities. Thus, consistent with the Certificate Policy Statement and section 7(c) of the NGA, the Commission concludes that approval of Arlington's proposal is required by the public convenience and necessity, subject to the conditions discussed below.

¹⁸ *Id.* at 3.

¹⁹ Gas Free Seneca's October 15, 2013 Comments.

²⁰ Arlington's June 3, 2013 Response to Staff's Engineering and Rates Data Request at 8, response (b).

²¹ *See, Arlington Storage Co., LLC*, 128 FERC ¶ 61,261, at P 8 (2009) (*Arlington*). Certificate Policy Statement, 88 FERC at 61,747.

B. Engineering Issues

21. Our review of the engineering data submitted by Arlington indicates that Arlington's proposal to convert Gallery 2 from LPG to natural gas storage is technically sound and feasible. Our review further confirms that the Seneca Lake Project, upon completion of the expansion, is properly designed to provide a total of 2.0 Bcf of total working gas capacity, with a withdrawal capacity of 145,000 Dth per day; that the geological and engineering parameters for the proposed underground salt cavern gas storage facilities are well defined; and that the cavern locations are well within the design criteria and confinement of the salt formation.

22. The capacity of the Seneca Lake Project after Arlington's proposed expansion will be as follows:

	Gallery 1	Gallery 2	Seneca Lake
Base Gas capacity, Bcf	0.89	0.20	1.09
Working Gas capacity, Bcf	1.45	0.55	2.0
Total Gas capacity, Bcf	2.34	0.75	3.09
Maximum pressure, psi/ft	0.9	0.9	

23. Arlington proposes to cycle Gallery 2 between 0.9 psi per foot and 0.2 psi per foot, as measured at the casing shoe of the monitoring well, Cavern Well No. 45. Because salt deforms plastically when under a pressure differential, all caverns will shrink over time.²² The Interstate Oil and Gas Compact Commission's *Hydrocarbon Storage in Mined Caverns Report* (IOGCC Report) states that monitoring to demonstrate cavern stability and successful hydrodynamic containment should be carried out throughout the life of the facility.²³ We have reviewed the sonar survey and mechanical integrity test (MIT) data submitted by Arlington. This information established the size, shape, and volume of

²² See Thomas, Robert and Gehle, Richard, *A Brief History of Salt Cavern Use*, Solution Mining Research Institute, 2000 ("large volume losses due to salt creep have occurred in natural gas caverns").

²³ *Hydrocarbon Storage in Mined Caverns, A Guide for State Regulators*, Interstate Oil and Gas Compact Commission, 2000.

Gallery 2 and demonstrated the ability of the cavern to hold pressure. We will require Arlington to conduct annual inventory verification tests, and every five years, sonar surveys or other tests as approved by the Commission, to monitor the caverns' size, shape, and roof to ensure the integrity of the caverns or to detect any lost or migrated gas (Engineering Condition 5). In addition, the engineering conditions set forth in Appendix A of this order will apply to both Gallery 1 and Gallery 2, unless otherwise specified.

24. Gas Free Seneca filed comments on the geology of Arlington's caverns. Comments about the age of the caverns and wells, the Jacoby-Dellwig Fault and a connection between Gallery 1 and Gallery 2; the cavern roof collapse in Cavern Well No. 30 and the integrity of Gallery 2; and the salt pillar thickness will be discussed below. We will discuss the rest of Gas Free Seneca's comments in the environmental discussion.

25. Regarding Gas Free Seneca's comments on the age of Gallery 2 caverns, we are not aware of any instances where cavern age affected the integrity of a cavern or a cavern's ability to hold natural gas. Therefore, we conclude the age of the Gallery 2 caverns is not an integrity issue. However, the age of a well that penetrates a cavern can be an issue. As stated above, Arlington determined that the ages and condition of Cavern Well Nos. 30 and 31 made them unsuitable for use as injection/withdrawal wells in natural gas storage operations. Arlington proposes to permanently plug and abandon Cavern Well Nos. 30 and 31. Arlington drilled two new wells, Cavern Well Nos. 30A and 31A, completing them in accordance with current industry standards. Arlington determined that the size, casing, and wellbore condition of Cavern Well No. 45, despite its age, made it suitable for use in debrining the Gallery and as an observation well for Gallery 2. As part of the engineering requirements in Appendix A, we require Arlington to conduct periodic assessments of all the cavern wells to ensure the cement/casing bonds have not been compromised (Engineering Conditions 4 and 5).

26. Regarding the Jacoby-Dellwig Fault, we acknowledge its presence located east of brine Cavern Well Nos. 29, 37, and 41, which puts it west of Gallery 1 and east of Gallery 2. We also acknowledge that a surface brine flow event occurred while Cavern Well No. 29, located south of the Galleries and not part of either Gallery, was being constructed because its hydraulic fractures apparently intersected the Jacoby-Dellwig fault. However, natural gas has been stored in Gallery 1 with no evidence of leaking, and pressure testing results indicated no pressure loss in either Gallery.²⁴ Further, neither Gallery intersects with the fault, and any hydraulic fractures created during the construction of the two Galleries would have long since healed due to the salt's inherent plasticity, as explained below. In addition, the structure contour map on the top of the

²⁴ Arlington's January 2, 2014 Response to Engineering and Data Request at 2.

salt gives no indications of faults breaking into the overlying sediments. Therefore, all of the discussions indicate faulting is confined to the salt and the intervening rock layers. Furthermore, the cross-sections (one North-to-South and the other West-to East) illustrate the absence of faulting and the uniformity of the Camillus Shale caprock in the vicinity of Gallery 2. Finally, the seismic activity in the area around Gallery 2 is low, as discussed below in the environmental section. Based on our analysis of the information in the record, we conclude the presence of the Jacoby-Dellwig fault near the Seneca Lake Project does not compromise the integrity of either Gallery. However, to ensure continued operational integrity, we will require Arlington to monitor both Galleries for any gas loss, and determine how any such gas escaped, and where it has gone (Engineering Condition 7). We will also require Arlington to monitor the surface in and immediately around the Seneca Lake Project facility for any surface expression of gas migration (Engineering Condition 7).

27. We note the comments made by Gas Free Seneca's geologist Dr. Clark²⁵ regarding the environmental assessment's (EA) omission of the Cavern Well No. 30 roof collapse event discussed in the geologic literature by former U.S. Salt Geologist Dr. Jacoby.²⁶ Historical roof collapse was the subject of an engineering data request, issued by Commission staff to Arlington on May 15, 2013.²⁷ Arlington responded to this and other engineering questions on June 3, 2013, stating that, to their knowledge, there have been no roof failures in Galleries 1 or 2, or in any other cavern within the Watkins Glen Brine Field in which natural gas or natural gas liquids have been stored.²⁸

²⁵ To support its claims, Gas Free Seneca filed with the Commission reports from two geologists, Dr. Richard Young (Dr. Young), Professor Emeritus of Geological Sciences at the State University of New York, and Dr. H.C. Clark (Dr. Clark), retired Professor of Geology and Geophysics at Rice University. These reports provide a detailed discussion of the regional structural geology, and the presence of sub-surface faulting within New York State, and excerpts from several professional publications including those of a former U.S. Salt geologist, Dr. C.H. Jacoby (Dr. Jacoby).

²⁶ Jacoby, C.H., *Storage of Hydrocarbons in Bedded Salt Deposits Formed by Hydraulic Fracturing*, Proceedings of the Third Symposium on Salt, Cleveland, Ohio, 463-469 (1969b).

²⁷ FERC's May 15, 2013 Engineering and Rates Data Request.

²⁸ Arlington's June 3, 2013 Response to Staff's Engineering and Rates Data Request at 4.

28. Dr. Jacoby's literature states that Cavern Well No. 30 experienced the fall of a 400,000 ton block of rock from the roof during the time Gallery 2 was used for LPG storage. The process of cycling LPG, a liquid, involves the displacement of two immiscible²⁹ liquids. In LPG storage, after cavern development, LPG is injected, displacing the brine. To withdraw the LPG, brine is injected, displacing the LPG. Dr. Jacoby's literature states that unless saturated brine is used continually in recycling product (LPG), there is a distinct possibility of undermining fault blocks, and even when saturated brine is used as a recycling fluid, there would remain some minor quantities of salt that would continue to be dissolved. As described by Dr. Jacoby, this dissolution of salt and the resultant Cavern Well No. 30 roof collapse occurred during the recycling of brine used to store LPG in Gallery 2.³⁰

29. As discussed in section A.4.0 of the EA, Arlington proposes to convert Gallery 2 to store natural gas in vapor form, not LPG or other natural gas liquids. In natural gas storage, natural gas is used to completely displace the brine from the cavern. Natural gas is cycled in and out of the cavern through pressure difference. Brine is not reinjected into the cavern as part of the cycling process. Gallery 2 is currently full of brine, as it is no longer in LPG service. Once the Gallery is debrined (dewatered), as described in section A.6.0 of the EA, natural gas will be stored within the caverns. Recycling of brine, either saturated or undersaturated, is not within the scope of Arlington's Gallery 2 Project, and is not consistent with the operations of natural gas storage within Gallery 2. Thus, once dewatered further dissolution of the salt in the Gallery will not occur.

30. Gas Free Seneca claims that salt bed caverns found at Gallery 2 provide a less comprehensive seal when compared to salt-dome cavern integrity, and that this must be considered along with the role of geologic faulting in the site area and within the caverns. Cavern integrity is evaluated on an individual basis, taking into account, among other things, all geological information, including the type of formation, i.e. bedded salt cavern or salt dome. Based on all the information filed, there is no physical reason to conclude that the bedded salt caverns of Gallery 2 do not have a comprehensive integrity. As discussed in section B.1.3 of the EA, Arlington's evaluation of well logs, isopach maps, and structure maps in the vicinity of Gallery 2 determined that there is no faulting in the

²⁹ Incapable of mixing together.

³⁰ Jacoby, C.H., *Storage of Hydrocarbons in Bedded Salt Deposits Formed by Hydraulic Fracturing*, Proceedings of the Third Symposium on Salt, Cleveland, Ohio, 463-469 (1969b); and Jacoby, C.H., Szyprowski, S., Paul, D.K., *Earth Science Aspects in the Disposal of Inorganic Wastes, Proceedings of the Fourth Symposium on Salt*, Houston, Texas (1973).

Camillus Shale caprock above the proposed storage galleries. Further, as discussed in the environmental section below, the geologic literature states that structure contour and isopach maps reveal that both the upper and lower surfaces of the salt are relatively uniform, that the top and bottom of the salt are horizontal in parallel planes,³¹ and the faulting occurred within the salt mass between these over and underlying bedrock units. In addition, the brine pressure test conducted in Gallery 2 showed no loss, indicating the Gallery has integrity. We find no indication that Arlington's Gallery 2 Project caverns do not have a comprehensive seal and integrity when compared with caverns developed in salt domes.

31. However, as cavern integrity is an issue we are always concerned about, we will require Arlington to conduct a new sonar survey of Gallery 2, through all three cavern wells, to obtain the current size of the gallery, the size and shape of the rubble pile, and the shape of the roof around each well (Engineering Condition 3). Arlington will need to file the results of this survey before dewatering can commence. In addition, we require Arlington to monitor the roof and integrity of the caverns through either periodic sonar surveys or other Commission approved cavern integrity monitoring plan, as stated in Appendix A. This monitoring program will apply to both Gallery 1 and Gallery 2.

32. Generally, the Commission will reference state regulations governing the minimum distance between caverns needed to ensure that operations in one cavern do not impact the integrity of any adjacent cavern. If a state does not have those types of regulations, the Commission uses a minimum distance between caverns of 300 feet, which is the minimum distance used by many states. Arlington states the NYSDEC has not promulgated any regulations prescribing minimum distances or setbacks specific to underground natural gas storage.³² However, the NYSDEC's established practice is to base permit approval on rock mechanics testing performed on core samples, geologic mapping and the finite-element or finite-difference modeling that is performed to prove or disprove the capacity of the proposed storage cavern to support safe storage of the products over time. Arlington's geologists have determined that the salt pillar distance between storage caverns in this salt formation should be more than 60 feet for adjacent

³¹ Jacoby, C.H., *Storage of Hydrocarbons in Bedded Salt Deposits Formed by Hydraulic Fracturing*, Proceedings of the Third Symposium on Salt, Cleveland, Ohio, 463-469 at 464 (1969b). Jacoby, C.H. and Dellwig, L.F., *Appalachian Foreland Thrusting in Salina Salt*, Watkins Glen New York, Proceedings of the Fourth Symposium on Salt, Houston, Texas, 227-233 at 231 (1973).

³² Arlington's June 3, 2013 Response to Staff's Engineering and Rates Data Request at 4.

caverns with maximum cavern diameters of no more than 350 feet. The Gallery 2 caverns lie approximately 380 feet west of the Gallery 1 caverns. The next closest cavern, Cavern Well No. 58, is approximately 780 feet to the west of Gallery 2. The closest cavern is more than six times the minimum distance determined with reference to NYDEC practice. Furthermore, the caverns are not near the property lines of U.S. Salt's brine field surrounding Gallery 2. We require Arlington to work proactively with its affiliate, U.S. Salt on future development of the brine field. If U.S. Salt's cavern development program includes any new cavern closer to Arlington's Seneca Lake Project boundaries than Cavern Well No. 58, it is incumbent upon Arlington to ensure no new caverns are developed within 300 feet of either Gallery 1 or Gallery 2.

C. Market Based Rates

33. Arlington proposes to offer the additional firm and interruptible storage and hub services that Gallery 2 will support, on an open-access basis at market-based rates under the terms and conditions of its current tariff on file with the Commission.³³ Arlington contends that the additional storage facilities proposed as part of this expansion project will not result in any changes in Arlington's services or require any changes to its tariff. Arlington asserts that there is no need for the Commission to reconsider its prior determination that Arlington lacks market power.

34. Generally, the Commission evaluates requests to charge market-based rates for storage under the analytical framework of its Alternative Rate Policy Statement.³⁴ Under the Alternative Rate Policy Statement, the Commission evaluates requests for market-based rates pursuant to two principal 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

³³ *Arlington Storage Co., LLC*, Docket No. RP09-872-000 (unpublished delegated letter order issued August 21, 2009).

³⁴ *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, *reh'g and clarification denied*, 75 FERC ¶ 61,024 (1996), *petitions for review denied sub nom., Burlington Resources Oil & Gas Co. v. FERC*, 172 F.3d 918 (D.C. Cir. 1998) (Alternative Rate Policy Statement). *Rate Regulation of Certain Natural Gas Storage Facilities*, Order No. 678, FERC Stats. & Regs. ¶ 31,220, *order on clarification and reh'g*, Order No. 678-A, 117 FERC ¶ 61,190 (2006).

discriminate unduly in price or terms and conditions of service.³⁵ 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 power,³⁶ because customers have good alternatives,³⁷ or that the applicant or Commission can mitigate the market power with specified conditions.³⁸

35. Arlington requests reaffirmation of its authority to charge market-based rates for its firm and interruptible storage services and its interruptible hub services without filing a new market power study. Arlington also requests any waiver of 18 CFR Part 284 subpart M that the Commission deems necessary for it to grant this request. Arlington asks the Commission to consider the market power study it submitted in 2010 when it acquired the Seneca Lake Project. Arlington states that the 2010 Market Power Study (2010 study) included an analysis of the Gallery 2 caverns in the aggregate capacity attributed to the Seneca Lake Project.³⁹

36. The 2010 study presents a detailed market share and market concentration analysis of the then-current working gas capacity and market concentration for the New York and Pennsylvania storage area. Arlington's 2010 study showed that the market concentration for working gas capacity and maximum daily withdrawal capability in the New York and Pennsylvania area results in Herfindahl-Hirschman Index (HHI) levels of 2,129 and 2,057, respectively, which are above the 1,800 threshold level set forth in the Alternative Rate Policy Statement. However, the 2010 study also showed that the Seneca Lake Project's market shares nevertheless are relatively small: only 0.4 percent for working

³⁵ See *Blue Sky Gas Storage, LLC*, 129 FERC ¶ 61,210 (2009); *Orbit Gas Storage, Inc.*, 126 FERC ¶ 61,095 (2009).

³⁶ The Commission defines "market power" as "the ability of a pipeline to profitably maintain prices above competitive levels for a significant period of time." Alternative Rate Policy Statement, 74 FERC at 61,230.

³⁷ A good alternative is an alternative to the proposed project that is available soon enough, has a price that is low enough, and has a quality high enough to permit customers to substitute the alternative for an applicant's service. *See Id.*

³⁸ 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.

³⁹ Arlington's Application at 21.

gas capacity and 1.4 percent for maximum daily withdrawal capability.⁴⁰ Arlington's 2010 study showed that the New York and Pennsylvania storage market is concentrated due to the presence of two storage providers, Dominion Transmission Inc. (DTI) and National Fuel Gas Supply Corporation (National Fuel). Both DTI (which has approximately 40 percent of capacity and 40 percent withdrawal capability) and National Fuel (which has 15 percent capacity and 12 percent withdrawal capability) are regulated by the Commission and their Commission-approved rates are cost-based, alleviating the market power potential of relatively small applicants. The Commission has determined that companies with Commission-regulated, cost-based rates cannot exercise market power to increase prices above the cost-based rate cap.⁴¹

37. Since the approval of Arlington's 2010 study, only one storage company, UGI Storage, has added capacity (14.7 Bcf) in the New York and Pennsylvania market area.⁴² This storage facility addition further dilutes the HHI level in Arlington's market area.

38. Therefore, the Commission concludes that the addition of Arlington's expanded aggregate working gas storage capacity of 0.55 Bcf will not allow Arlington to exercise market power in the relevant market. Furthermore, Arlington's request for reaffirmation of its authorization to charge market-based rates is unopposed. For these reasons, Arlington's request for reaffirmation of its market-based rate authority is approved.

39. However, as in the 2010 Order, approval of market-based rates for the indicated services is subject to re-examination in the event that: (a) Arlington adds storage capacity to the project beyond the capacity authorized in this order; (b) an affiliate increases storage capacity; (c) an affiliate links storage facilities to the project; or (d) Arlington, or an affiliate, acquires an interest in, or is acquired by, an interstate pipeline connected to the project. Since these circumstances could affect its market power status, Arlington must notify the Commission within 10 days of acquiring knowledge of any such changes. The notification must include a detailed description of the new facilities

⁴⁰ The 2010 study showed that the market shares of Arlington's total storage field (Thomas Corners Project, Adrian Field Storage Project, and Seneca Lake Project), along with the Stagecoach Project, now owned by Crestwood Equity Partners LP, were relatively small, only 7.9 percent for working gas capacity and 8.0 percent for maximum daily withdrawal capability.

⁴¹ *Central New York*, 94 FERC ¶ 61,194, at 61,706-07 (2001).

⁴² *UGI Storage Co.*, 133 FERC ¶ 61,073 (2010), *order on reh'g*, 134 FERC ¶ 61,239 (2011).

and their relationship to Arlington and the project.⁴³ The Commission also reserves the right to require an updated market power analysis at any time.

40. Arlington is not proposing any changes to its existing tariff. Arlington proposes to offer firm and interruptible storage and hub services utilizing Gallery 2 on an open-access basis at market-based rates under the terms and conditions of its existing tariff. The Commission finds that the additional storage facilities proposed by Arlington in this application will not result in any changes in Arlington's services or require any changes to Arlington's FERC NGA Gas Tariff.

D. Request for Waivers of Filing, Reporting and Accounting Requirements

41. Arlington requests that the Commission waive the following sections of the Commission's regulations: (1) section 157.6(b)(8) (applicants to submit cost and revenue data); (2) sections 157.14(a)(13), (14), (16), and (17) (cost-based exhibits); (3) section 157.14(a)(10) (gas supply data); (4) the accounting and reporting requirements of Part 201 and sections 260.1 and 260.2 (Form Nos. 2 and 2A); (5) section 284.7(e) (reservation charge); and (6) section 284.10 (straight fixed-variable rate design methodology).

42. In light of the prior approval of market-based rates for Arlington's storage service and the current request for continuation of authority to provide service at market-based rates, the cost-related information required by the above-described regulations is not relevant. Consistent with previous Commission orders,⁴⁴ Arlington's request for waiver of the regulations requiring the filing of cost-based rate related information is granted, except that such waivers do not extend to the Annual Charge Assessment.⁴⁵ Arlington must file page 520 of Form No. 2 or 2-A, reporting gas volume information, in order to permit the Commission to accurately calculate the annual charge.⁴⁶ Arlington concurs in

⁴³ See, e.g., *Port Barre Investments*, 116 FERC ¶61,052 (2006); *Copiah County Storage Co.*, 99 FERC ¶ 61,316 (2002); *Egan Hub Partners, L.P.*, 99 FERC ¶ 61,269 (2002).

⁴⁴ See, e.g., *Tricor Ten Section Hub, LLC*, 136 FERC ¶ 61,242, at PP 40-41 (2011); *Black Bayou Storage, LLC*, 123 FERC ¶ 61,277, at P 35 (2008); *Port Barre Investments, L.L.C. d/b/a Bobcat Gas Storage*, 116 FERC ¶ 61,052, at P 33 (2006).

⁴⁵ See *BGS Kimball Gas Storage, LLC*, 117 FERC ¶ 61,122, at P 49 (2006).

⁴⁶ *Unocal Windy Hill Gas Storage, LLC*, 115 FERC ¶ 61,218, at P 38 (2006).

its application that it will file page 520 of Form 2 or 2-A.⁴⁷ In addition, Arlington must maintain records of cost and revenue data consistent with the Commission's Uniform System of Accounts and stand ready to present these records if requested.

E. Environmental Review

43. On April 3, 2013, the Commission issued a Notice of Intent to Prepare an Environmental Assessment for the Proposed Gallery 2 Expansion Project (Gallery 2 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, as defined in the Commission's regulations (i.e., landowners within one-half mile of the proposed compressor unit).

44. We received over 400 written comments in response to our NOI and Arlington's application.⁴⁸ The commenters included individuals, the Schuyler County Environmental Management Council, the U.S. Environmental Protection Agency (EPA), and Gas Free Seneca.⁴⁹ The primary issues raised during scoping concerned air quality, increased vehicle traffic, migratory birds, groundwater and surface water, public health and safety, visual impact, cumulative impacts, alternatives to the Gallery 2 Project, preparation of an environmental impact statement (EIS) rather than an EA, and an extension of time for filing comments and interventions on the Gallery 2 Project.

45. To satisfy the requirements of the National Environmental Policy Act of 1969 (NEPA), our staff prepared an EA for Arlington's proposal. The EA was prepared with the cooperation of the New York State Department of Environmental Conservation (NYSDEC). The analysis in the EA addresses geology, soils, water resources, wetlands, vegetation, fisheries, wildlife, threatened and endangered species, land use, recreation, visual resources, cultural resources, air quality, noise, safety, cumulative impacts, and alternatives. The EA also addresses all substantive comments received during the scoping process, as well as environmental issues raised by intervenors.

⁴⁷ Arlington's Application at 22.

⁴⁸ As noted above, many of these comments actually addressed the adjacent, non-jurisdictional Finger Lakes LPG storage project.

⁴⁹ Represented by Earthjustice.

46. On September 13, 2013, the EA was issued for a 30-day comment period and placed into the public record. The EA was also mailed to all interested parties including federal, state, and local officials; agency representatives; environmental and public interest groups; Native American tribes; local newspapers; and affected property owners. The Commission received 41 comment letters on the EA from members of the public, EPA, Schuyler County Environmental Management Council, Gas Free Seneca, Earthjustice (including a compilation of letters that it filed for others), and New York State Senator Tony Avella.

47. An extension of the EA comment period was requested by EPA and Gas Free Seneca due to the federal government shutdown that occurred between October 1 and 16, 2013. To allow affected federal agencies the opportunity to comment, the Commission issued a notice reopening and extending the comment period to November 1, 2013.

48. On October 8, 2013, Gas Free Seneca requested an additional comment period extension to review and comment on geologic materials that were filed by Arlington as critical energy infrastructure information (CEII). The Commission required Arlington to provide these documents to Gas Free Seneca in an October 8, 2013 order. No additional extension of time was necessary; Gas Free Seneca filed its comments on the geologic materials on January 15, 2014, and those comments are addressed in this order.

49. The majority of comments on the EA address: (1) air quality, including compliance with National Ambient Air Quality Standards (NAAQS), air quality modeling requirements, climate change, and potential impacts on nearby vegetative communities and vineyards ; (2) cumulative impacts on air quality, noise, public health, tourism due to increased truck and rail traffic, and safety related to the combined operation of the Gallery 2 Project and the proposed Finger Lakes Project; (3) geologic hazards associated with the proposed development of Gallery 2; (4) water resource impacts associated with brine water disposal and stormwater; (5) vegetation and wildlife impacts associated with invasive species and migratory birds; and (6) alternatives, including the no-action alternative and other storage alternatives in the region.

50. The EPA's comments primarily concern the adequacy of Arlington's air quality modeling. In addition, the EPA recommends that the applicant only use evergreen trees native to the area in its planned screening of the project's compressor from Seneca Lake. Arlington has agreed to plant a screen of evergreen trees between the project's compressor and Seneca Lake in order to mitigate the impact on the existing viewshed. Schuyler County Environmental Management Council comments on the fate of the brine water removed during cavern debrining, the need for stormwater mitigation, and compressor noise mitigation. Gas Free Seneca comments that the EA fails to consider the full extent of geologic risks, and contains flaws in its analysis of groundwater, surface water, vegetation, and noise impacts. Gas Free Seneca also states that the EA is deficient in its treatment of invasive species, cumulative impacts, and alternatives, and that a full

EIS should be prepared for the Gallery 2 Project. Senator Avella comments in support of Gas Free Seneca and also requests that a full EIS be conducted along with a health impact study, or alternatively, that the application be denied.

51. Comments on the EA are addressed below, organized by general topic.

1. Air Quality

52. EPA and Gas Free Seneca comment that Arlington used an outdated model, SCREEN3, for its air quality assessment. The EPA states that although the results were below the NAAQS, the 1-hour nitrogen dioxide (NO₂) impact is close to the standard, and recommends that AERSCREEN or AERMOD be used instead of SCREEN3 for air quality assessments.

53. In order to address the potential exceedance of the 1-hour NO₂ NAAQS standard, our staff requested that Arlington perform a refined air quality modeling analysis using the latest version of EPA's AERMOD air dispersion modeling program. In response, Arlington supplemented its application on January 15, 2014, to now propose a 400 hp electric motor-driven compressor unit in place of the 500 hp gas-fired unit analyzed in the EA. There will be no emissions associated with the electric motor-driven compressor unit; therefore, further air quality modeling was rendered unnecessary by Arlington's new proposal. Electric service for the newly proposed unit is available near the Gallery 2 site, requiring only the replacement of one or two wooden utility poles along an existing access road within the Seneca Lake Project's facility. We find the required electric service will require minimal additional environmental impact at previously disturbed locations.

54. New York State Senator Avella requests that the Commission perform a health impact study. Based on the analysis in the EA and the elimination of any operational emissions associated with the proposal, we do not believe a health impact study is warranted.

55. The EPA comments that Arlington's June 25, 2013 response incorrectly stated that New York State does not have a lead standard. Although this facility may not be subject to a lead standard, we acknowledge that New York does regulate lead for applicable sources.

56. The EPA states that the locations of the monitoring sites establishing criteria air pollutant background concentrations provided in Arlington's June 25, 2013 response are distant from the Gallery 2 Project site, and the EPA recommends that the EA should discuss the "representativeness" of this background relative to the project site. Arlington obtained background concentrations from monitoring stations in: Steuben County, New York; Montoursville, Lycoming County, Pennsylvania; and Scranton, Lackawanna

County, Pennsylvania. Arlington selected these locations on the basis of being the closest available monitoring sites.

57. We note that the latest U.S. Census finds that Steuben County, New York, and Lackawanna and Lycoming Counties, Pennsylvania, as well as the relatively urbanized areas of Scranton and Montoursville (bordering Williamsport), each have population densities considerably greater than that of Schuylers County.⁵⁰ Therefore, the data included in the EA and obtained from the nearest available monitoring sites are conservative estimates of criteria pollutant background concentrations found within Schuylers County and the Gallery 2 Project area.

58. The EPA comments that Arlington's June 25, 2013 response erroneously exempts the emergency engine at Arlington's existing compressor station from carbon monoxide (CO) modeling for purposes of demonstrating compliance with the 1-hour CO NAAQS standard. We note this omission. We also note that adding the emergency generator's contribution to modeled CO concentrations would, at most, minimally increase the predicted maximum concentrations from Arlington's compressor station, which would remain well below the 1-hour CO NAAQS standard.

59. Numerous commenters state that ozone generated from the Gallery 2 Project would adversely affect grapevines in the project area. Our staff reviewed the information from the U.S. Department of Agriculture concerning the effects of ozone on plants. Section B.7.1 of the EA concludes that the emission of ozone precursors from the Gallery 2 Project's originally proposed natural gas-fired compressor would have only minimally added to the existing ambient concentrations of these pollutants and would not have resulted in any appreciable change in the formation of ground-level ozone in the project area or damage to surrounding vegetative communities. However, there will be no ozone emissions associated with the now-proposed electric motor-driven compressor unit, and the project operation will contribute no emissions of greenhouse gases resulting in climate change impacts.

2. Cumulative Impacts

60. Gas Free Seneca, the Schuylers County Environmental Management Council, and many other commenters in support of Gas Free Seneca, claim that the EA is deficient in its treatment of cumulative impacts. Gas Free Seneca specifically states that the EA does not properly consider the cumulative operational impacts of the Gallery 2 Project, the existing natural gas facility, the AmeriGas facility, and the Finger Lakes Project.

⁵⁰ <http://quickfacts.census.gov.html>

61. Of the identified projects that could contribute to cumulative environmental impacts, only the Finger Lakes Project has potential for cumulative impact in the Gallery 2 Project area. The proposed Gallery 2 Project, along with the Finger Lakes Project, was analyzed in the EA for potential cumulative impacts on groundwater, surface water resources, and air quality. The NYSDEC is the lead regulatory agency for the Finger Lakes Project and is currently reviewing the project application under the New York State Oil, Gas, and Solution Mining Law and the State Environmental Quality Review (SEQR) Act. No other projects identified within the 5-mile-radius of Arlington's Gallery 2 Project (U.S. Salt, Cargill Salt Co., and AmeriGas) would involve salt cavern storage of natural gas and none would have a direct or indirect cumulative impact on groundwater, surface water resources, or air quality.

62. Gas Free Seneca also comments that the EA ignores cumulative impacts on aesthetics, noise and community character focusing solely on groundwater, surface water and air quality.⁵¹ However, due to the limited scope and impacts of the Gallery 2 Project, groundwater, surface-water quality, and cumulative air impacts were the only resources identified in the EA that could potentially be cumulatively affected (i.e., there will be no impacts on, for example, fisheries, wildlife, or threatened and endangered species).

63. The EA concludes that there would be negligible cumulative impacts on groundwater and surface water. Further, the EA states that construction of the Finger Lakes Project would occur under the authority of the NYSDEC and would be mitigated to avoid significant impacts on groundwater and surface waters. Because no project-specific evidence has been provided to sufficiently call into question the adequacy of the EA's cumulative impact analysis, we concur that construction and operation of Arlington's Gallery 2 Project and the Finger Lakes Project will not have cumulative impacts on groundwater and surface waters.

64. Gas Free Seneca comments that the proposed plugging [i.e. abandoning and sealing] of Cavern Well Nos. 30 and 31 would require around the clock activity and Arlington should not be permitted to engage in around the clock construction activities. Gas Free Seneca also states that the Gallery 2 Project would result in increased truck and rail traffic that would cumulatively impact tourism.

65. As stated in the EA, construction would occur on Arlington's property during a one-month construction window. The construction equipment would operate on an as-needed basis and, contrary to Gas Free Seneca's suggestion, limited to daytime hours

⁵¹ Gas Free Seneca's October 15, 2013 Comments at 9.

only. The Gallery 2 Project's construction will require the temporary use of vehicles, machines, and other equipment and will increase existing truck traffic in the project's vicinity. Following project construction, truck traffic will return to existing levels. There is no increased rail traffic associated with construction or operation of the Gallery 2 Project facilities. Operation of the Gallery 2 Project will not increase truck or rail traffic over existing levels, including the transport of any hazardous materials. As concluded in the EA in section B.5.0, construction and operation of the Gallery 2 Project would have no significant impact on land use, aesthetics, or impact the local economy (primarily derived from tourism).

66. The EA's cumulative air quality analysis concludes that the construction schedule for the Gallery 2 Project and the Finger Lakes Project is not expected to overlap, and as such, no cumulative impacts on air quality during construction would occur. Gas Free Seneca states that the EA should address cumulative operational impacts for these projects, as well as from the 60,000-gallon AmeriGas aboveground LPG storage facility located in Watkins Glen, New York.

67. Per information obtained from the NYSDEC Draft Supplemental EIS for the Finger Lakes Project facility, electric motor-driven pumps would be utilized at the brine withdrawal and injection locations, and six additional 40 hp compressor units using unspecified sources of power would be operated in association with railcar unloading operations. The operation of electric motor-driven units would not result in air contaminant emissions at their respective locations; however, the 40 hp compressor units would be sources of air contaminants if operated on fossil fuel (e.g., natural gas, LPG, diesel). Additional air pollutants associated with the Finger Lakes Project would include fugitive dust emissions associated with truck and rail transport activities (including criteria pollutant particulate matter), as well as exhaust from the truck and railroad engines. The air pollutant emissions from these activities would be intermittent, and in the case of the 40 hp units, would be minor sources of emissions that would disperse rapidly into the existing background concentrations.

68. Subsequent to issuance of the EA, Arlington now proposes to construct an electric motor-driven unit for the Gallery 2 compressor, in place of the gas-driven unit. An electric motor-driven compressor is not a direct source of air emissions; therefore, its operation will not result in cumulative impacts on air quality within the Gallery 2 Project's region of influence.

69. We agree with the EA's conclusion that the Gallery 2 Project and the Finger Lakes Project will not result in significant cumulative impacts on regional air quality.

70. Several comments state concern that the Gallery 2 Project-related noise would impact public health and, thus, result in cumulative noise impacts. Gas Free Seneca comments that the EA does not assess the possibility of noise traveling across Seneca

Lake. Similarly, the Schuyler County Environmental Management Council states the potential for sound to become “magnified” across Seneca Lake. On February 12, 2014, Arlington filed the results of a noise assessment for the electric motor-driven unit in response to staff’s February 3, 2014 data request. The noise assessment concludes that the Gallery 2 Project would not result in an audibly detectable increase over existing ambient noise levels at the nearest noise sensitive area (NSA), and the combined full-load operation of the Gallery 2 Project and the existing Arlington compressor station would remain below a day-night sound level of 55 decibels on the A-weighted scale.

71. Therefore, noise from the Gallery 2 Project’s operation will contribute minimally to any cumulative noise impacts at the nearest NSAs, which would include the noise contribution from existing ambient noise sources and the proposed Finger Lakes Project. We acknowledge that some other areas, such as any noise receptors across Seneca Lake, could experience some increase in ambient noise levels from the Gallery 2 Project’s operation. However, due to other competing noise sources, including the existing Arlington compressor station and highway and railroad traffic, noise from the Gallery 2 Project would not significantly impact residents or other individuals within the project area.

72. Arlington’s acoustic study also estimates that the combined operation of the existing Arlington compressor station and Gallery 2 Project facilities will not result in a perceptible increase in vibration at nearby NSAs. Environmental Condition 12 in the appendix to this order requires Arlington to file the results of a noise survey demonstrating that noise attributable to the operation of the Gallery 2 Project compressor unit will not exceed a day-night noise level of 55 decibels on the A-weighted scale at any nearby NSAs.

73. Further, due to the Gallery 2 Project’s lack of operational air emissions and the minor noise and vibration emissions, the project operation will not result in cumulative increased risks to public health.

74. Gas Free Seneca also comments that the EA does not analyze the impacts of Arlington’s future expansion plans to develop additional natural gas storage using existing U.S. Salt caverns, and cites Inergy Midstream’s (currently Crestwood Midstream) most recent Annual Report filed with the Securities and Exchange Commission, and its most recent quarterly filings as proof of these future plans. Gas Free Seneca comments that not addressing these expansion plans constitutes segmentation of a much larger project, contrary to the purpose of NEPA, and that the Commission should

evaluate a “range of build out scenarios” extrapolated from Inergy Midstream’s statements to its shareholders.⁵²

75. Improper segmentation of a project occurs when interrelated projects are artificially divided into smaller, less significant components in order to avoid the NEPA requirement that an EIS be prepared for all major federal actions with significant environmental impacts.⁵³ The Council of Environmental Quality’s (CEQ) NEPA regulations provide guidance on when actions should be analyzed together or separately. Specifically, CEQ’s regulations provide that proposals should be analyzed in the same EIS if they are “connected” (i.e., “closely related”).⁵⁴ Actions are connected if they automatically trigger other actions that may require an EIS, cannot or will not proceed unless other actions are taken previously or simultaneously, or are interdependent of a larger action and depend on the larger action for their justification.⁵⁵

76. As explained in this order, the purpose of the Gallery 2 Project is to convert two existing salt caverns, previously used to store LPG, to natural gas storage. The Gallery 2 Project will add 0.55 billion cubic feet of working gas capacity and 0.2 billion cubic feet of base gas capacity within an existing storage facility which will be available to meet seasonal peak-day demands and help respond to market fluctuations. Inergy Midstream’s speculation that the market will require additional natural gas storage capacity utilizing solution-mined cavities at some time in the future is not a proposed project before the Commission and does not constitute a connected action. Therefore, we conclude there is no improper segmentation under NEPA.

3. Geologic Hazards

77. As described in the EA, Arlington’s storage field makes use of existing salt caverns originally developed by U.S. Salt within the Salina Salt Group, which consists of six distinct salt beds and five intervening sedimentary bedrock units of shale, siltstone and anhydrite. Production of commercial salt products is an ongoing operation by U.S. Salt within the Salina Salt Group. The closest caverns to the Gallery 2 Project caverns are Cavern Well No. 58 to the west and the Gallery 1 caverns to the east. The Gallery 2

⁵² Gas Free Seneca’s October 15, 2013 Comments at 8.

⁵³ See *Taxpayers Watchdog, Inc. v. Stanley*, 819 F.2d 294,298 (1987).

⁵⁴ 40 C.F.R. § 1508.25(a)(1)(iii) (2013).

⁵⁵ *Id.* § 1508.25(a)(1).

caverns (Cavern Well Nos. 30, 31, and 45) were previously utilized between 1964 and 1989 for LPG storage. Currently Arlington stores natural gas within its Gallery 1 caverns (Cavern Well Nos. 28 and 27/46) located slightly east of the proposed facilities. Gas Free Seneca comments that the EA's analysis of geologic risks associated with Gallery 2 is too limited in its discussion of significant seismic activity, landslides, or other geologic hazards; and does not take into account the significance of geologic structure and the presence of sub-surface faulting.

78. To support its claims, Gas Free Seneca filed with the Commission reports from two geologists, Dr. Young and Dr. Clark. These reports provide a detailed discussion of the regional structural geology, and the presence of sub-surface faulting within New York State, and excerpts from several professional publications including those of a former U.S. Salt geologist, Dr. Jacoby. Dr. Clark provides a considerable discussion (including cavern completion and abandonment reports) regarding the problems associated with the development of U.S. Salt Cavern Well No. 58, and the relationship of these development problems with a coincidental seismic event in the region. Dr. Clark further discusses a release/flow of cavern brine fluid detected during a hydraulic fracturing program on U.S. Salt Cavern Well No. 29 to a point 0.5 mile from the well location. Both Dr. Young and Dr. Clark, as well as numerous other commenters, refer to a recent (September 10, 2013) low magnitude (M2.0) seismic event located about 13 miles north of the Gallery 2 Project, as evidence of the unpredictable seismicity in the region.

79. Dr. Clark points to a number of alleged deficiencies in the EA including: 1) the EA is brief and generally dismisses commenter concerns about geology, seismicity, and faulting; 2) the Commission should have recognized every element of the geologic repository (published geologic papers and articles) particular to the Gallery 2 Project caverns; 3) the EA should have expanded on comments raised about seismicity in the area; and 4) the EA gives faulting in the Gallery 2 area "short shrift", and responds only to commenter concerns about the possibility of a large strike-slip fault (the Jacoby-Dellwig Fault) passing through one of the caverns.

80. Section B.1.3 of the EA characterizes the Gallery 2 Project area as having a low potential for seismicity, with peak ground acceleration of between 2 to 3 percent gravity. The east coast of the United States is a passive tectonic plate boundary located on the "trailing edge" of the North American continental plate, which is relatively seismically quiet. However, cycles of Appalachian mountain-building events did exist in the Gallery 2 Project area during the late Paleozoic to Mesozoic-Era, which produced compressional pressure on sediments in the basin. Earthquakes do occur in the area of Arlington's Gallery 2 Project, and within the Allegheny Plateau Physiographic Province. These events are cited in the geologic literature, and are documented by the U.S. Geological Survey (USGS). Present-day seismic activity in the region is largely due to trailing edge tectonics and residual compressional stress release from these historical geologic mountain building events.

81. The low-seismic risk discussed in section B.1.3 of the EA is supported by the published literature⁵⁶ cited by Gas Free Seneca's experts, and is further supported by the low intensity of the recent (September 10, 2013) M2.0 earthquake. Magnitude 2 earthquakes are characterized as weak events with no potential for damage and little to no perceived ground shaking.

82. The Cavern Well No. 58 development problems, discussed by Dr. Clark, and its association to a coincidental seismic event was the opinion of one of U.S. Salt's consulting engineers (Mr. Larry Sevenker). Mr. Sevenker's incorrect interpretation of the Cavern Well No. 58 sonar log lead to a false conclusion that the cavern's roof had collapsed due to seismicity in the region.⁵⁷ The seismic event cited in Dr. Clark's comments has never been validated and subsequent reentry into Cavern Well No. 58 and sonar logging in 2009 by U.S. Salt showed that the cavern was intact, and what was originally interpreted as a roof collapse was not.⁵⁸

83. Gas Free Seneca states that the EA's conclusions that the caverns are structurally sound relies heavily on the fact that Gallery 2 was used for years to store LPG. Gas Free Seneca states that increasing storage pressure in the caverns during debrining (dewatering), testing, and/or operation could expand and re-open an existing, unmapped assemblage of fractures. Gas Free Seneca further states that these re-opened fractures could provide preferential pathways for natural gas and/or concentrated brine water to escape and contaminate shallow, potable groundwater or make its way into Seneca Lake, thereby affecting the natural salinity of the lake rendering this potable source of drinking water unusable.

84. Dr. Clark states that the EA is brief and general in the conclusions drawn regarding geologic faults within the region, reported by U.S. Salt's geologist (Dr. Jacoby)

⁵⁶ Jacobi, R.D., *Basement Faults and Seismicity in the Appalachian Basin of New York State* (2002). Geology Department, University of Buffalo, *The State of New York*; and Podwysocki, M.H., Pohn, H.A., Phillips, J. Krohn, D., Purdy, T. and Merin S. (1982). *Evaluation of Remote Sensing, Geological and Geophysical Data for South-Central New York and Northeastern Pennsylvania*. USGS Open File Report 82-319.

⁵⁷ Larry Sevenker's January 15, 2013 Letter to NYSDEC.

⁵⁸ January 24, 2014. Communication between A.J. Rana (FERC Environmental Staff Geologist) and Mr. Peter Briggs (NYSDEC, Director, Bureau of Oil & Gas Permitting and Management). See also, Arlington's June 3, 2013 Response to Staff's Engineering and Rates Data Request.

in a number of publically available professional papers.⁵⁹ Dr. Clark states that the EA should have expanded on citizen comments raising these issues, recognizing that seismicity is a legitimate concern in the Watkins Glen Brine Field and the overall regional tectonic framework and events related to the caverns reveal the stress environment within the subsurface.

85. Dr. Clark cites the geologic literature with information showing that “both” [Gallery 2] caverns are cut by a bedding plane, low-angle thrust fault that enabled the hydraulic fracturing connection between Cavern Wells Nos. 30 and 31, and that this thrust faulting created the underlying cause for a cavern roof collapse in Cavern Well No. 30, when a 400,000 ton mass of bedrock fell from the roof of the cavern to the floor during cavern use for LPG storage.⁶⁰ Further, Dr. Clark points out that the geologic literature describes a major strike-slip fault, the Jacoby-Dellwig Fault, cutting through geologic section [evaporites] with about 1,200 feet of horizontal displacement along the fault trend in a north direction between Gallery 2 (Cavern Well No. 31), and Gallery 1 (Cavern Well No. 28).

86. As discussed in section B.1.3 of the EA, Arlington’s evaluation of well logs, isopach maps, and structure maps in the vicinity of Gallery 2 determined that there is no faulting in the Camillus Shale caprock above the proposed storage galleries. In addition, section B.1.3 of the EA states that the strike-slip fault, in which many commenters expressed their concerns that it is located beneath the Gallery 2 Project caverns, is in fact east of Gallery 2 [between Gallery 1 and Gallery 2].

87. We note the additional published literature cited by Dr. Clark’s January 2014 comments which state that tear faults (small scale local strike slip faults) and thrust faults developed in the Salina Salts and the intervening rock strata between individual salt layers. However, the geologic literature cited by Dr. Clark also describes that structure contour mapping on top of the Salina Salt gives no indication of the faults breaking up the overlying bedrock. The geologic literature states that structure contour and isopach maps reveal that both the upper and lower surfaces of the salt are relatively uniform and

⁵⁹ The Charles Jacoby articles.

⁶⁰ Jacoby, C.H., *Storage of Hydrocarbons in Bedded Salt Deposits Formed by Hydraulic Fracturing*, Proceedings of the Third Symposium on Salt, Cleveland, Ohio, 463-469 (1969b). Jacoby, C.H. and Dellwig, L.F., *Appalachian Foreland Thrusting in Salina Salt*, Watkins Glen New York, Proceedings of the Fourth Symposium on Salt, Houston, Texas, 227-233 (1973).

that the top and bottom of the salt are horizontal in parallel planes.⁶¹ In addition, the literature states that the evaporites located in the center of the sediments became viscoplastic, absorbed most shock associated with the thrusting action during the paleo-mountain building events, and at the same time acted as a lubricant in between two rigid blocks of carbonate bedrock below and above the Salina Salt.⁶² The geologic literature further describes the contact between the bottom salt and the underlying bedrock as sharp and smooth, forming a plane along which the entire salt series was thrust toward the north-northwest.⁶³

88. Dr. Clark's comments that the Salina Salt mass underwent considerable deformation producing low-angle thrust faults and tear faults through the salt and intervening clastic units, and that these faults have been exploited for cavern development and connection through hydraulic fracturing. However, the bedrock units above and below the Salina Salt sequence remains unaffected by the paleo-faulting events, as demonstrated through isopach mapping of the Camillus Shale caprock above the proposed storage galleries, and as noted in Dr. Jacoby's papers cited above.

89. Further, Dr. Jacoby states that failure to maintain sufficient pressure [during hydraulic fracturing] results in the "healing" or closing in of the fractures, and that halite crystallizes in the fractures if sufficient pressure is not maintained until the void is completely filled. Dr. Jacoby describes this crystalline halite material as "substantially stronger" in tension than the original salt, thus resisting refracturing, and that this healing effect allows fractured cavities in faulted salt beds, such as those of New York, to be used for the storage of hydrocarbons.⁶⁴

90. Section B.1.3 of the EA states that pressure changes in the Gallery 2 caverns would occur gradually and that no shock or hammer effect would result in sudden changes in the cavern pressure. Gas Free Seneca claims that hydraulic fracturing

⁶¹ *Id.*

⁶² Jacoby, C.H., Szyprowski, S., Paul, D.K., *Earth Science Aspects in the Disposal of Inorganic Wastes, Proceedings of the Fourth Symposium on Salt*, Houston, Texas (1973).

⁶³ Jacoby, C.H., *Storage of Hydrocarbons in Bedded Salt Deposits Formed by Hydraulic Fracturing*, Proceedings of the Third Symposium on Salt, Cleveland, Ohio, 463-469 (1969b).

⁶⁴ *Id.*

pressures could re-open an existing assemblage of unmapped fractures; however, this ["hydraulic fracturing"] is not proposed for Arlington's Gallery 2 Project cavern debrining and/or operational activities.

91. During Arlington's cavern testing, pressure was applied at the well head and held for an extended period of time while the caverns and wells offset from the caverns were monitored for pressure changes. It was common practice by U.S. Salt to horizontally connect the caverns by hydraulic fracturing. However, as stated above, this is not proposed by Arlington. Dr. Jacoby states that the initial pressure required at the well head to split the salt bed is 1.05 times the vertical distance to the point at which pressure is applied and describes an initial pressure of 2,835 pounds per square inch (psi) necessary to fracture the salt at Cavern Well No. 28 (Gallery 1).⁶⁵

92. Hydraulic fracturing initiation pressures used by U.S. Salt on wells in the Arlington storage field have been in the range of 1.36 psi/foot (ft) to 1.70 psi/ft (2,500 psi to 3,500 psi at the well head) to produce the required fracturing and cavern connection results.⁶⁶ These pressures are much greater than the pressures Arlington would operate the Gallery 2 caverns, which range between 0.2 psi/ft and 0.9 psi/ft (which equates to 400 psi and 1,669 psi at the well head). Further, as discussed above, existing fractures within the Salina Salt that were previously hydraulically fractured during cavern development heal naturally and are substantially stronger in tension than the original salt.⁶⁷ The release of brine fluid from Cavern Well No. 29 was, as Dr. Clark states and what is cited in the geologic literature⁶⁸ the result of preferential fracture flow during the hydraulic fracturing in this cavern.

⁶⁵ Jacoby, C.H., *International Salt Brine at Watkins Glen, New York, Proceedings of the First Symposium on Salt*, Cleveland, Ohio, 506-520, at 508 (1962).

⁶⁶ December 6, 2013. Communication between A.J. Rana (FERC Environmental Staff Geologist) and Mr. Peter Briggs (NYSDEC, Director, Bureau of Oil & Gas Permitting and Management).

⁶⁷ Jacoby, C.H., *Storage of Hydrocarbons in Bedded Salt Deposits Formed by Hydraulic Fracturing*, Proceedings of the Third Symposium on Salt, Cleveland, Ohio, 463-469 (1969b).

⁶⁸ Jacoby, C.H. and Dellwig, L.F., *Appalachian Foreland Thrusting in Salina Salt*, Watkins Glen New York, Proceedings of the Fourth Symposium on Salt, Houston, Texas, 227-233 (1973).

93. Given the proposed operational pressures, it is unlikely that fluid (brine) migration from the Gallery 2 caverns will contaminate potable groundwater sources or Seneca Lake.

94. In consideration of our review of the geologic information provided by Gas Free Seneca's expert geologists, we restate the EA's conclusion that there will be no significant impact on environmental resources due to geologic hazards or from the geologic framework present in the Gallery 2 Project area.

4. Water Resources

95. The Schuyler County Environmental Management Council questions the fate of the brine produced during debrining of the Gallery 2 caverns, if the brine is rendered inert and environmentally safe, and if it is ultimately pumped down an abandoned salt well. The Council requested additional information regarding any increase or alteration to impervious cover, how this would impact stormwater drainage issues, how potential brine leaks and/or spills would be addressed, and the need for a stormwater mitigation plan.

96. Section B.3.5 of the EA states that U.S. Salt would temporarily store brine from the Gallery 2 caverns in its existing brine ponds and would utilize the salt in these ponds for salt product processing. In addition, as stated in section B.3.5 of the EA, U.S. Salt is required by NYSDEC to maintain the brine ponds in a leak-free condition in conjunction with its Class III underground injection control permit, and monitor the brine field with groundwater monitoring wells.

97. During the brine evaporation process, there are inorganic precipitates and insoluble material which originate in the caverns and remain behind in the evaporation process. It is common practice to return the inorganic precipitates/insoluble material to designated caverns within the brine field, in accordance with NYSDEC approval, instead of sending this material to a landfill. Currently, there are no active brine disposal wells within Schuyler County.⁶⁹ Historically, U.S. Salt did operate a brine disposal well at its Watkins Glen Plant which is the subject of Dr. Jacoby's paper cited by Dr. Clark;⁷⁰

⁶⁹ NYSDEC Brine Disposal Well Summary. Accessed on February 26, 2014 at <http://www.dec.ny.gov/energy/29856.html>.

⁷⁰ Jacoby, C.H., Szyprowski, S., Paul, D.K., *Earth Science Aspects in the Disposal of Inorganic Wastes, Proceedings of the Fourth Symposium on Salt*, Houston, Texas (1973).

however, the disposal well, cavity well, and groundwater monitoring wells discussed in Dr. Jacoby's paper have all been abandoned.⁷¹

98. Section A.7.0 of the EA states that construction of the Gallery 2 Project would disturb a total of 6.60 acres of land owned by Arlington, and following construction Arlington would maintain 0.85 acre for permanent operation of the Gallery 2 Project facilities (wells, compressor pad, brine pump pad, valves, and controls for the interconnecting pipeline). The remaining 5.75 acres disturbed by pipeline construction, temporary access road use, and laydown area would be restored to former uses (predominantly maintained lawn and gravel cover).

99. A portion of the 0.85 acre would consist of new impervious surfaces. The largest impervious surface would be associated with the 400 hp electric motor-driven compressor that would be housed within a steel building with a surface footprint measuring 1,280 square feet (32 foot by 40 foot), or 0.03 acre of impervious cover. There are two man-made waterbodies within the Gallery 2 Project area that convey surface-water drainage. Both waterbodies flow into an unnamed tributary to Seneca Lake. As described in section A.6.0 of the EA, Arlington would implement the measures in FERC's *Upland Erosion Control, Revegetation, and Maintenance Plan* (FERC's Plan) to minimize impacts from erosion and ensure restoration of the Gallery 2 Project area. The minimal increase in impervious surface will be a minor increase over existing conditions in the project area. In regard to brine leaks and spills, section B.3.5 of the EA states that Arlington would implement its Spill Prevention, Containment, and Countermeasure Plan for the containment, handling and mitigation of surface spills of fuels, solvents, or lubricants during construction. The measures included in the spill plan will adequately protect groundwater and surface water resources at the Gallery 2 Project area.

5. Vegetation and Wildlife

100. Gas Free Seneca states that the EA fails to discuss or include an invasive species plan. Arlington states that it will follow FERC's Plan during construction of Gallery 2 Project facilities. Section III.F of FERC's Plan requires Arlington to develop procedures to prevent the introduction/spread of invasive species. Given the relatively small area of disturbance for the Gallery 2 Project (a total of 6.60 acres) and the requirements of

⁷¹ NYSDEC Well Data Search. Accessed on February 26, 2014 at <http://www.dec.ny.gov/energy/1603.htm>

FERC's Plan, we conclude that there will be minimal potential for the introduction or spread of invasive species in the Gallery 2 Project area.

101. Gas Free Seneca states that the EA's discussion of impacts on migratory birds is too conclusory, that there is no analysis to suggest that increased noise would individually or cumulatively impact migratory birds, that the EA lacks a comprehensive discussion of how construction would affect migratory birds during construction, and that the EA does not provide sufficient analysis to support its findings.

102. As described in the EA, a review of the Gallery 2 Project's potential effects on migratory birds was conducted in consultation with the U.S. Fish and Wildlife Service (FWS). Section B.4.1 of the EA describes that the Gallery 2 Project site is not within a bird conservation area or an important bird area and would provide only marginal habitat for wildlife, and as such, provides only marginal habitat for migratory birds. The EA concludes that based on the existing condition and use of the site and the presence of similar and other more valuable habitats in the area; the effects of construction on migratory birds would be minor.

103. The EA also concludes that operation of the Gallery 2 Project would have no significant impact on use of the site by migratory birds. Less than 1.0 acre of habitat would be permanently lost, disturbed lands would be restored and allowed to revert to pre-project conditions, and additional noise attributable to the increased compression would be minor. Because no evidence has been provided to sufficiently call into question the EA's findings and our consultation with the FWS, we concur that construction and operation of the Gallery 2 Project will not significantly affect migratory birds.

6. Alternatives

104. Gas Free Seneca, the Schuyler County Environmental Management Council, and several other commenters in support of Gas Free Seneca claim that the EA fails to adequately consider the no-action alternative. Section C.1.0 of the EA evaluates project alternatives, including the no-action alternative, energy conservation alternatives, source alternatives, and storage alternatives. The EA concludes that under the no-action alternative, the objective of the Gallery 2 Project to provide firm natural gas storage capacity to satisfy growing demand in the northeast would not be met. It is possible that without the proposed Gallery 2 Project the storage capacity and seasonal peak-day demands may be met by alternative projects or energy sources, potentially resulting in additional impacts on the environment. Other natural gas companies could construct projects in substitute for the natural gas storage service proposed by Arlington. Such alternative projects could require the construction of additional and/or new storage facilities in the same or other locations to store the gas volumes proposed by the Gallery 2 Project. These projects would result in their own set of specific environmental impacts that could be equal to or greater than those described for the current proposal.

Furthermore, it is speculative to predict what action might be taken by policymakers or end users in response to the no-action alternative.

105. The EA states that energy conservation and energy alternatives, such as renewable energy sources (wind and solar), when compared to natural gas storage, would be ineffective at reducing peak daily demands. Further, the EA finds that other energy sources, such as oil, propane, coal, and wood could be used to satisfy peak daily demands; however, these sources of energy would result in greater air emissions and long-term environmental impact when compared to the proposed Gallery 2 Project. We find that the EA adequately addresses these alternatives.

106. Gas Free Seneca states that the EA fails to consider other existing underground facilities located in less sensitive areas, and the EA should consider whether the vast increased supply of natural gas in nearby Pennsylvania and Ohio could be transported to obviate the need for additional storage in the Finger Lakes region.⁷²

107. The EA evaluates other storage alternatives within the region that would allow for the requisite storage working capacity and similar system flexibility and deliverability options. Several storage alternatives were considered, including the development of new storage facilities such as depleted reservoir storage and cavern storage. Section C.2.0 of the EA identifies three underground natural gas storage facilities in the northeast and concludes that development of the necessary storage capacity at any of these facilities would result in greater construction, environmental, and landowner impacts when compared to Arlington's proposed Gallery 2 Project. In addition, these alternatives would require an adequate supply of raw water for cavern leaching, as well as brine storage and disposal. When compared to the proposed action, Arlington's Seneca Lake Project is unique in terms of its proximity to existing natural gas pipeline infrastructure, as well as U.S. Salt's existing brine storage and handling facilities. Lastly, other means of providing natural gas to the region, such as direct pipeline infrastructure from shale

⁷² Gas Free Seneca also asserts that "to the extent the Project approval facilitates new well development in the areas just to the south of the Project location, the upstream impacts of the new storage construction should be included in FERC's environmental analysis." Gas Free Seneca October 15, 2013 Comments at 11. New well development is not reasonably foreseeable as it is unknown how much, if any, such development will result from the Project, or where any potential development may be sited, nor does Gas Free Seneca attempt to support its speculation regarding the likelihood of future development. Moreover, even if a meaningful analysis of potential well development "facilitated" from the Project was possible, it is unclear how this analysis would inform our analysis of the "no action alternative."

gas producing regions that could meet the Gallery 2 Project's objective has not been proposed and is not currently before the Commission for evaluation.

7. EA vs. EIS

108. Gas Free Seneca believes the preparation of an EIS, rather than an EA, is necessary in order to consider the direct, indirect, and cumulative impacts associated with the Gallery 2 Project. The CEQ regulations implementing NEPA state that one of the purposes of an EA is to assist agencies in determining whether to prepare an EIS or a finding of no significant impact.⁷³ Consistent with CEQ's regulations, the Commission's policy is to prepare an EA, rather than an EIS, if our initial review indicates that a project is not likely to be a major federal action significantly affecting the quality of the human environment. The Commission's years of experience with NEPA implementation for natural gas projects indicate that the Gallery 2 Project as presented in Arlington's application and subsequent modifications to the project would not fall under the "major" category for which an EIS is automatically prepared. As indicated in the EA, no significant impacts will occur as a result of the construction, and operation of the Gallery 2 Project. We affirm the EA's findings and reject Gas Free Seneca's assertion that an EIS is required.

109. Based on the analysis in the EA, we conclude that if constructed and operated in accordance with Arlington's application and supplements, and in compliance with the environmental conditions in the appendix to this order, our approval of this proposal would not constitute a major federal action significantly affecting the quality of the human environment.

110. 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.⁷⁴

⁷³ See 40 C.F.R. § 1508.9 (2013).

⁷⁴ 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).

IV. Conclusion

111. At a hearing held on May 15, 2014, the Commission, on its own motion, received and made a part of the record in this proceeding all evidence, including the application, as supplemented, 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 Arlington to construct and operate the Gallery 2 Project, as described and conditioned herein, and as fully described in the application.

(B) The certificate authority issued in Ordering Paragraphs (A) is conditioned on Arlington's compliance with all applicable Commission regulations under the NGA, including but not limited to the terms and conditions in Part 157 and paragraphs (a), (c), (e), and (f) of section 157.20 of the regulations.

(C) Arlington must comply with the engineering conditions set forth in Appendix A to this order.

(D) Arlington must comply with the environmental conditions set forth in Appendix B to this order.

(E) The facilities authorized herein must be constructed and made available for service within two years of the issuance of this order pursuant to section 157.20(b) of the Commission's regulations.

(F) Arlington must work proactively with its affiliate, U.S. Salt, if U.S. Salt's cavern development program proposes any new cavern closer to Arlington's Seneca Lake Project boundaries than Cavern Well No. 58 to ensure no new caverns are developed within 300 feet of either Gallery 1 or Gallery 2.

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

(H) Arlington is authorized to continue to charge market-based rates for firm and interruptible storage and hub services as discussed above and subject to the conditions in this order.

(I) Arlington is granted a waiver of the Commission's regulations that have been deemed inapplicable to storage providers with market-based rates, as discussed in this order.

By the Commission.

(S E A L)

Nathaniel J. Davis, Sr.,
Deputy Secretary.

Appendix A
Engineering Conditions for the
Gallery 2 Project

Docket No. CP13-83-000

This authorization is subject to the following engineering conditions:

1. The maximum inventory of natural gas stored in each cavern, and at the entire Seneca Lake facility, shall not exceed the certificated levels stated in the table below at 14.73 psia and 60° F without prior authorization by the Commission. The maximum shut-in stabilized pressure gradient for Gallery 1 and Gallery 2 shall not exceed 0.9 psi/ft as measured at the casing shoe of the monitoring well. The minimum pressure gradient shall be limited to 0.20 psi/ft as measured at the casing shoe of the monitoring well.

	Gallery 1	Gallery 2	Seneca Lake
Base Gas capacity, Bcf	0.89	0.20	1.09
Working Gas capacity, Bcf	1.45	0.55	2.0
Total Gas capacity, Bcf	2.34	0.75	3.09

2. Before Gallery 2 is placed in-service, Arlington shall determine the final gas storage operating capacity, working gas capacity, cushion gas capacity and maximum and minimum pressures at the casing shoe of the monitoring well and file them with the Commission (including data and work papers to support the actual operating capacity determination).
3. Before commencing storage operations in Gallery 2, Arlington shall:
 - (a) Conduct a Mechanical Integrity Test for the Gallery 2 caverns and cavern wells before initiation of each well/cavern to natural gas storage and file the results with the Commission;
 - (b) File with the Commission copies of the latest interference tracer surveys, or other testing or analysis on the Gallery 2 caverns to verify the lack of communication between the caverns;

- (c) Establish and maintain a subsidence monitoring network over the proposed Gallery 2 caverns' storage area;
 - (d) Assemble, test, and maintain an emergency shutdown system;
 - (e) Conduct and file with the Commission the results of a new sonar survey of Gallery 2, including plan view and cross sections, and 3-D; and
 - (f) Determine and file with the Commission the volume of rubble in Gallery 2, including the methodology of determining such volume.
4. Until one year after the storage inventory reaches or closely approximates the total authorized capacity for the Seneca Lake Project, Arlington shall twice annually conduct a leak detection test during storage operations to determine the integrity of the Gallery 1 and Gallery 2 caverns, well bore, casing and wellhead, and file the results with the Commission, unless otherwise ordered by the Commission.
 5. Each of the Gallery 1 and Gallery 2 cavern wells shall be periodically logged to check the integrity of each casing string. Additionally, every five years, Arlington shall conduct sonar surveys of the Gallery 1 and Gallery 2 caverns to monitor their dimensions and shape, including the cavern roof, and to estimate pillar thickness between openings throughout the storage operations, and file the results with the Commission. In the alternative, no less than 30 days before placing Gallery 2 into service, Arlington may file with the Commission, for prior approval of the methodology, a detailed cavern integrity monitoring plan that is consistent with the intent of the sonar survey.
 6. Arlington shall conduct annual inventory verification studies on Gallery 1 and Gallery 2, and file the results with the Commission.
 7. Arlington shall operate the Seneca Lake Project in such a manner as to maintain the integrity of the Gallery 1 and Gallery 2 caverns and to prevent gas loss from the caverns. Arlington shall monitor both Galleries for any gas loss, and monitor the surface in and immediately around the Seneca Lake Project facility boundaries for any surface expression of gas migration.
 8. Arlington shall file with the Commission semi-annual reports (to coincide with updates of 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 from the Gallery 1 and Galley 2 caverns;

- (b) The inventory of natural gas and shut-in wellhead pressure for the Gallery 1 and Gallery 2 caverns 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 volume injected or withdrawn is measured;
 - (d) The results of any tests performed to determine the actual size, configuration, or dimensions of the Gallery 1 and Gallery 2 caverns;
 - (e) A discussion of any operating problems and conclusions;
 - (f) Other data or reports which may aid the Commission in the evaluation of the storage project.
9. Arlington shall file semiannual reports in accordance with section 157.214 (c) of the Commission's regulations until the maximum inventory reaches or closely approximates the maximum capacity authorized and for a period of one year following.

Appendix B
Environmental Conditions for the
Gallery 2 Project

Docket No. CP13-83-000

As recommended in the environmental assessment (EA), this authorization includes the following conditions:

1. Arlington shall follow the construction procedures and mitigation measures described in its application and supplements (including responses to staff data requests) and as identified in the EA, unless modified by the Order. Arlington 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 of facilities**, Arlington shall file an affirmative statement with the Secretary, certified by a senior company official, that all company personnel, environmental inspectors (EI), 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 location shall be as shown in the EA. **As soon as they are available, and before the start of construction**, Arlington 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 facility 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. Arlington shall file with the Secretary detailed alignment maps/sheets and aerial photographs at a scale not smaller than 1:6,000 identifying all 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 FERC'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**, Arlington shall file an Implementation Plan with the Secretary for review and written approval by the Director of OEP. Arlington must file revisions to the plan as schedules change. The plan shall identify:

- a. how Arlington 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 Arlington 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, 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 Arlington will give to all personnel involved with construction and restoration (initial and refresher training as the project progresses and personnel change);
 - f. the company personnel (if known) and specific portion of Arlington's organization having responsibility for compliance;
 - g. the procedures (including use of contract penalties) Arlington 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. Arlington shall employ at least one EI who shall be:
- a. responsible for monitoring and ensuring compliance with all mitigation measures required by the Order and other grants, permits, certificates, or other authorizing documents;

- b. responsible for evaluating the construction contractor's implementation of the environmental mitigation measures required in the contract (see recommendation 6 above) and any other authorizing document;
 - c. empowered to order correction of acts that violate the environmental conditions of the Order, and any other authorizing document;
 - d. responsible for documenting compliance with the environmental conditions of the Order, as well as any environmental conditions/permit requirements imposed by other federal, state, or local agencies; and
 - e. responsible for maintaining status reports.
8. Beginning with the filing of its Implementation Plan, Arlington shall file updated status reports with the Secretary on a **biweekly** 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 Arlington'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 EI(s) during the reporting period (both for the conditions imposed by the Commission and any environmental conditions/permit requirements imposed by other federal, state, or local agencies);
 - 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 Arlington from other federal, state, or local permitting agencies concerning instances of noncompliance, and Arlington's response.

9. **Prior to receiving written authorization from the Director of OEP to commence construction of any project facilities**, Arlington shall file with the Secretary documentation that it has received all applicable authorizations required under federal law (or evidence of waiver thereof).
10. Arlington 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 areas affected by the project are proceeding satisfactorily.
11. **Within 30 days of placing the authorized facilities in service**, Arlington shall file an affirmative statement with the Secretary, certified by a senior company official:
 - a. that the facilities have been constructed in compliance with all applicable conditions, and that continuing activities will be consistent with all applicable conditions; or
 - b. identifying which of the Certificate conditions Arlington 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.
12. Arlington shall file a noise survey with the Secretary **no later than 60 days** after placing the project compressor unit in service. If a full power load condition noise survey is not possible, Arlington shall file an interim survey at the maximum possible power load **within 60 days** of placing the project compressor unit in service and file the full load survey **within 6 months**. If the noise attributable to the operation of the project compressor unit at full or interim power load conditions exceeds a day-night noise level of 55 decibels on the A-weighted scale at any nearby noise-sensitive areas, Arlington shall file a report on what changes are needed and shall install the additional noise controls to meet the level **within 1 year** of the in-service date. Arlington shall confirm compliance with the above requirement by filing a second full power noise survey with the Secretary **no later than 60 days** after it installs the additional noise controls.