

Anticompetitive Effects of the Proposed Enbridge-Spectra Oil & Gas Infrastructure Merger

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I. Introduction

The proposed merger between Enbridge Inc. (Enbridge) and Spectra Energy Corp. (Spectra) would significantly reduce competition in the natural gas transportation, storage and processing industries, creating a more dominant and vertically integrated energy firm that would violate the Clayton Act's prohibition against mergers that may "substantially lessen competition, or tend to create a monopoly."¹ The proposed deal runs afoul of the Federal Trade Commission's (FTC) merger guidance, that "[m]ergers should not be permitted to create, enhance, or entrench market power or to facilitate its exercise."²

The proposed Enbridge-Spectra deal creates the continent's largest energy infrastructure network with \$127 billion in assets by joining the fourth largest firm (Enbridge) and eleventh largest (Spectra).³ The \$28 billion all-stock deal was code-named Project Rainbow.⁴ Enbridge also agreed to assume about \$17 billion in Spectra debt and it included a \$1.4 billion break-up fee.⁵ The

deal also would be the largest purchase of an American company by a Canadian firm.⁶

The companies together own petroleum pipelines that transport oil, natural gas and natural gas liquids, natural gas gathering networks, pipeline terminals, natural gas utilities, natural gas processing and renewable electricity generation.⁷ Enbridge describes itself as "a North American leader in delivering energy" and the largest exporter of crude oil to the United States.⁸ Spectra describes itself as "one of North America's leading natural gas infrastructure companies."⁹

The proposed merger increases horizontal concentration in the natural gas pipeline, natural gas processing and natural gas storage sectors as well as reinforces Enbridge's vertically integrated energy services capacity from wellhead to energy meter. The combined firm would have the unilateral market power to impose small, but significant price increases on consumers. It would also increase market concentration sufficiently for the industry to exert coordinated market power since it would be easier for the major firms to monitor output, prices and services and tacitly collude to raise prices.

The proposed merger also would create a more vertically integrated energy firm that could disadvantage rivals by foreclosing access to natural gas or electricity, ultimately harming consumers. Moreover, the proposed merger joins firms with

¹ 15 U.S.C. §18.

² U.S. Department of Justice/Federal Trade Commission (DoJ/FTC). "Horizontal Merger Guidelines." August 19, 2010 at 2.

³ Picker, Leslie. "Merger creates largest pipeline operator in North America." *New York Times*. September 7, 2016; Enbridge. [Investor presentation]. "Enbridge Inc. and Spectra Energy Corp. combine to create North America's premier energy infrastructure company." September 6, 2016 at 4; Spectra Energy. [Press release]. "Enbridge and Spectra Energy to combine to create North America's premier energy infrastructure company with C\$165 billion enterprise value." September 6, 2016.

⁴ Dawson, Chester and Judy McKinnon. "Enbridge to buy Spectra Energy in \$28 billion deal." *Wall Street Journal*. September 6, 2016.

⁵ Loh, Tim, Christine Buurma and Jeremy Van Loon. "Enbridge seeks to create 'FedEx' of pipelines in Spectra deal." *Bloomberg*. September 6, 2016; Enbridge [Investor Presentation] (September 6, 2016) at 9.

⁶ *Ibid.*

⁷ Spectra Energy (September 6, 2016).

⁸ Enbridge Inc. "Consistency Strength Value." 2015 Annual Report. March 8, 2016 at 18 and 31.

⁹ Spectra Energy Corp. U.S. Securities and Exchange Commission (SEC). 10-K filing. Fiscal year ended December 31, 2015 at 4.

indifferent safety and environmental records, an important element of product and service quality that has endangered communities across the country. Rewarding pipeline firms that have failed to ensure the quality of service and safety facilitates further pipeline safety lapses, risking further environmental destruction and damage to local communities along the pipeline routes.

A. Proposed Enbridge-Merger Creates Vertically Integrated Petroleum Powerhouse

The proposed merger would create an energy infrastructure powerhouse that would have the ability and incentive to exert market power to the detriment of rivals and consumers. The companies tout the merger’s “industry-leading total return potential” from its “best-in-class assets” with “unmatched scale, diversity and financial flexibility with multiple platforms for organic growth.”¹¹ A portfolio manager at Tortoise Capital Advisors LLC estimated

	Enbridge	Spectra	Merged
Natural Gas Transportation Pipelines (Miles)	2,212	17,100	19,312
Natural Gas Gathering (Miles)	7,016	68,332	75,348
Natural Gas Storage (Billions of Cubic Feet—Bcf)	115	300	415
Natural Gas Processing Capacity (Bcf)	5	4	9
Liquids (Oil & NGL) Pipelines (Miles)	17,150	1,690	18,840
Liquids Terminal Capacity (Million Barrels)	79	5	84
Natural Gas Utility Customers (Millions)	2.1	1.4	3.5

¹⁰ Enbridge. [Investor presentation] (September 6, 2016) at 8; Enbridge infrastructure map, available at <http://www.enbridge.com/projects-and-infrastructure/>, accessed December 2016; Spectra operations map available at <http://www.spectraenergy.com/Operations/>, accessed December 2016.

¹¹ Spectra Energy (September 6, 2016).

the deal would ensure continued “runaway of double-digit dividend growth” through 2024.¹²

The merged company would connect key oil and gas supplies to industrial and residential consumers.¹³ The companies told investors that the merger would join “high-quality supply basins, markets, commodities and value drivers.”¹⁴ And it would have a sprawling footprint connecting supply including Alberta’s tar sands, Marcellus shale gas, Bakken shale oil, Texas and Gulf Coast gas to consumers in Eastern Canada, the U.S. Pacific Northwest, Midwest, Southeast, Texas, Mid-Atlantic and Northeast.¹⁵

The proposed deal would join an extensive natural gas and petroleum infrastructure network (see Table 1). The combined infrastructure would give the merged Enbridge-Spectra substantial control over the U.S. energy sector. The proposed merger would control an estimated 15 to 20 percent of the North American natural gas market.¹⁶ The combined company’s pipelines delivered 7.1 quadrillion BTUs of natural gas in 2015 — about 12 percent of all pipeline deliveries — and it would control 13.5 percent of U.S. natural gas pipeline capacity.¹⁷ The two firms together controlled

¹² Loh, Buurma and Van Loon (September 6, 2016).

¹³ Spectra Energy (September 6, 2016).

¹⁴ Enbridge Inc. Transcript of investor conference call. September 6, 2016.

¹⁵ Loh, Tim. “More mergers in the pipeline? Pending deal to buy Spectra could set off wave of consolidation.” *Providence Journal*. September 11, 2016; Hunn, David and Collin Eaton. “Spectra agrees to major energy merger; Enbridge from Canada buying Texas company for \$28 billion.” *Houston Chronicle*. September 7, 2016; Dawson and McKinnon (September 6, 2016).

¹⁶ Enbridge Inc. Transcript of investor conference call. September 6, 2016.

¹⁷ Food & Water Watch analysis of “PGJ Annual 500 Report.” *Pipeline & Gas Journal*. November 2016 at 25 to 28; F&WW analysis of U.S. Department of Energy.

14 percent of the U.S. natural gas processing capacity — 6.8 billion cubic feet per day in 2014.¹⁸

The corporate pairing would diversify the holdings of the merged firm, including oil, natural gas, natural gas liquids and electric utilities.¹⁹ The proposed merger would shift Enbridge’s focus from crude oil to a balance between oil and natural gas (see Table 2).²⁰ Today, most of Enbridge’s pipelines transport oil and liquids and Spectra’s pipelines primarily carry natural gas.²¹ Enbridge had already been buying up natural gas plants and pipelines across the United States.²² Spectra’s CEO said the deal would make the merged firm the “FedEx” of the petroleum industry — “We ship, we pick up, we store product.”²³

Pipeline firms also pursue acquisitions to expand their capacity and network more rapidly than they could construct new pipelines.²⁵ Pipeline acquisitions are the

easiest way for companies to expand their networks.²⁶ Recently, Canadian courts blocked Enbridge from building a pipeline connecting the tar sands oil region to British Columbia and the company withdrew a project to ship Bakken shale oil to Wisconsin.²⁷ Purchasing pipeline assets delivers “irreplaceable” networks “you could not build those assets today,” according to Spectra’s CEO.²⁸

The proposed merger would exacerbate economic concentration in the natural gas and oil sector and enable the larger Enbridge-Spectra to exercise market power over consumers and oil and gas producers. Any purported efficiencies from the merger would likely be outweighed by the consolidation of undesirable market power.²⁹ The combined firm would have the ability to exercise its market power to reduce output and raise prices on consumers or limit access to markets for oil or gas producers.

Even minor changes in concentration and market share can create anticompetitive effects in energy markets that have volatile supply and demand cycles. During peak demand periods, energy firms can exert market power with relatively small market shares — as little as 7 or 8 percent — and markets that seem unconcentrated can exert market power when supply and demand are unaligned.³⁰ The proposed merger magnifies these effects in several regions of the country where the combination substantially increases concentration.

Table 2. Enbridge-Spectra Holdings Shift Post-Merger²⁴

Segment	Enbridge	Enbridge-Spectra Post Merger
Natural Gas	22%	47%
Crude Oil/Natural Gas Liquids	72%	49%
Renewables	5%	4%
Other	1%	

Energy Information Administration (EIA). State-to-State Capacity Database (Capacity Database). 2015.

¹⁸ Food & Water Watch analysis of EIA Natural Gas Annual Respondent Query System. EIA-757 Processing Capacity (Processing Capacity). September 2015.

¹⁹ Picker (2016).

²⁰ Dawson and McKinnon (September 6, 2016).

²¹ Hunn and Eaton (September 7, 2016).

²² *Ibid.*

²³ Loh, Buurma and Van Loon (September 6, 2016).

²⁴ Dawson and McKinnon (September 6, 2016).

²⁵ Balto, David and James Mongovern. “Deregulation and merger enforcement in the natural gas industry.” *Antitrust Law Journal*. Vol. 69. 2001 at 530.

²⁶ Dawson and McKinnon (September 6, 2016); Balto and Mongovern (2001) at 548.

²⁷ Dawson and McKinnon (September 6, 2016).

²⁸ *Ibid.*

²⁹ Balto and Mongovern (2001) at 535.

³⁰ Murray, Donald and Zhen Zhou. “Asymmetric price responses, market integration and market power: A study of the U.S. natural gas market.” *Energy Economics*. Vol. 30. 2008 at 751 to 752.

The proposed energy infrastructure and pipeline deal would contribute to and accelerate the merger mania in the energy sector. The proposed merger is the biggest deal in the energy sector since prices for oil and gas collapsed in 2014.³¹ The size of pipeline and midstream oil and gas mergers nearly quintupled from \$25 billion in assets in 2013 to \$113 billion in 2014.³² In 2016, TransCanada Corp. made a \$10.2 billion purchase of Columbia Pipeline Group — just over one-third the size of the proposed Enbridge-Spectra deal.³³

The proposed deal would likely only accelerate consolidation in the midstream energy sector, creating another wave of cascading mergers. The *Providence Journal* reported the proposed Enbridge-Spectra deal “foreshadows a feeding frenzy.”³⁴ A Cushing Asset Management partner said “Activity begets activity and I think that’s what this [Enbridge-Spectra deal] may do.”³⁵ The research director at U.S. Capital advisors said the deal could “light a fire in the bellies” that could be a catalyst for a cascade of mergers by major pipeline companies.³⁶ The *Financial Times* projects that the protracted low-price environment will only encourage more consolidation.³⁷

This white paper focuses on the combination of Enbridge’s and Spectra’s natural gas assets (pipelines, processing and storage), but the FTC should also closely examine the merger’s effect on oil transportation and storage, including the arrangements between upstream oil producers and downstream oil

refiners that could enable Enbridge-Spectra to disadvantage rivals.

Section II analyzes the proposed merger’s detrimental anticompetitive effects on the natural gas pipeline sector, Section III evaluates the proposed merger’s negative impact on the natural gas processing industry and Section IV addresses the merger’s effect on natural gas storage.

The FTC must oppose the termination of the antitrust review and extend the second request under the Hart-Scott-Rodino Act to fully examine the anticompetitive and anti-consumer impacts of the proposed merger.³⁸ The FTC must conduct a complete investigation of the proposed merger to fully assess the negative impact on competition in the natural gas, pipeline and energy sectors on consumers. The FTC should ultimately enjoin this merger.

³¹ Naidu, Richa and Sweta Singh. “Enbridge buying Spectra in \$28 billion deal.” *Reuters*. September 7, 2016.

³² Baker Botts. “2014—Energy M&A Reaches Record Levels.” April 3, 2015.

³³ Naidu and Singh (September 7, 2016).

³⁴ Loh (September 11, 2016).

³⁵ Loh, Buurma and Van Loon (September 6, 2016).

³⁶ Loh (September 11, 2016).

³⁷ Crooks, Ed. “US oil and gas pipeline industry ripe for consolidation.” *Financial Times*. October 5, 2016.

³⁸ 15 U.S.C. §18(e).

II. Proposed Merger Enhances Horizontal Natural Gas Pipeline Monopoly Power, Disadvantaging Consumers

The proposed Enbridge-Spectra merger would exacerbate consolidation in the transportation of natural gas and enable the merged firm to exercise market power to disadvantage rival pipelines and raise prices for consumers. The proposed merger would control 15 to 20 percent of the North American natural gas market.³⁹ The combined company's pipelines delivered about 12 percent of all natural gas in 2015 and it would control 13.5 percent of U.S. pipeline capacity.⁴⁰ Both firms have substantial assets throughout the natural gas midstream market — natural gas gathering, long-distance transportation pipelines, natural gas processing and even natural gas distribution to residential, commercial and industrial customers.

The combination of these natural gas networks would give Enbridge-Spectra considerable economies of scale and scope that would maximize the merged company's ability to exert market power. Pipeline networks benefit from economies of scope as companies offer multiple services at key infrastructure points (such as storage, transmission, compression, electronic transaction bulletin boards and others).⁴¹ Vertically integrated natural gas transportation firms can coordinate the supply and customer demands more cheaply.⁴² Pipeline companies can complement the natural

gas storage capacity in the pipeline network with natural gas storage facilities, enabling a more integrated firm to match supply and demand but also to withhold output to raise prices.⁴³

The complementary costs for the infrastructure and service investments mean that the firm generates economies of scope across its operations.⁴⁴ Vertically integrated firms can more cheaply coordinate delivery and production and manage the network system more effectively than purchasing all the affiliated services separately on the marketplace.⁴⁵

Pipeline companies can use excessive market power to disadvantage the two primary clients of natural gas pipeline networks: those that produce and sell gas and those that buy and consume it.⁴⁶ The pipeline market power has even wider impact because of the long-term contracts for gas by gas-fired electricity generation firms that provided one-third of U.S. electric power in 2015.⁴⁷ Pipelines are regulated in part under antitrust law and in part under public utility law to “prevent abuses of market power and other forms of unfair competition in energy markets.”⁴⁸

³⁹ Enbridge Inc. Transcript of investor conference call. September 6, 2016.

⁴⁰ Food & Water Watch analysis of “PGJ Annual 500 Report.” *Pipeline & Gas Journal*. November 2016 at 25 to 28; F&WW analysis EIA Capacity Database.

⁴¹ Juris, Andrej. World Bank Group. “Competition in the natural gas industry.” *Public Policy for the Private Sector*. Note No. 137. March 1998 at 6; Gordon, D.V., K. Gunsch and C.V. Pawluk. “A natural monopoly in natural gas transmission.” *Energy Economics*. Vol. 25. 2003 at 479.

⁴² Lyon, Thomas P. “Preventing exclusion at the bottleneck: Structural and behavioral approaches.” In Crew, Michael A. (Ed.). (2000). *Expanding Competition in Regulated Industries*. New York: Springer Science+Business Media at 58.

⁴³ Leitzinger, Jeffrey and Martin Collette. “A retrospective look at wholesale gas: Industry restructuring.” *Journal of Regulatory Economics*. Vol. 21, No. 1. 2002 at 81.

⁴⁴ Clancy, Josh. Illinois State University. Institute for Regulatory Policy Studies. Research paper. “The state of competition in the natural gas industry.” February 6, 2007 at 9.

⁴⁵ Gordon, Gunsch and Pawluk (2003) at 479.

⁴⁶ Doanne, Michael J., R. Preston McAfee and Michael A. Williams. “Evaluating and enhancing competition in the interstate natural gas transportation industry.” *Natural Resources Journal*. Vol. 44. Summer 2004 at 777.

⁴⁷ Murray and Zhou (2008) at 749; EIA. *Monthly Energy Review*. April 2016 at Table 7.2a.

⁴⁸ Spence, David B. and Robert Prentice. “The transformation of American energy markets and the problem of market power.” *Boston College Law Review*. Vol. 53, No. 131. 2012 at 132.

A. Nature of natural gas pipelines facilitates exercise of monopoly market power

Mergers in the pipeline industry can have a particularly corrosive effect on competition. The most basic product market is the natural gas itself because other energy sources are not perfect or simple substitutes.⁴⁹ The pipeline product market includes the transportation and sale of natural gas.⁵⁰ There are no comparable substitutes for pipeline services that can deliver the same volume of natural gas over long distances.⁵¹ The Federal Energy Regulatory Commission (FERC) considers the product market to be both gas transportation services and the gas itself and substitutes must be good alternatives based on comparable availability, volume and quality natural gas services (transportation, storage and others) at sufficiently competitive prices.⁵²

Pipelines often behave as natural monopolies; it does not make sense for many firms to invest in the same duplicative network.⁵³ At the local level it's more efficient and cheaper for consumers for fewer firms to deliver gas.⁵⁴ In practice, the natural gas pipeline sector is best described as a network oligopolies — there are few rivals with established semi-overlapping networks of transportation and ancillary gas services.⁵⁵

The consolidation in pipeline ownership and control distorts markets at the national and local level. Pipeline mergers generate significant scale efficiencies that make it easier for firms to exercise market power. Larger pipeline networks benefit from scale efficiencies.⁵⁶ A bigger pipe increases the output more than it increases cost — doubling the diameter of a pipeline increases volume fourfold but only doubles costs.⁵⁷ Significant mergers provide scale efficiencies that reduce the per barrel or per cubic foot costs to deliver or process oil and natural gas.⁵⁸

According to the President of the American Antitrust Institute, “Concentration is a pervasive problem in pipeline markets.”⁵⁹ Pipeline market power can enable a firm to profit by raising prices above competitive levels for a significant time without being constrained by rivals.⁶⁰ Pipeline firms with sufficient market power can unilaterally impose price hikes on their consumers.⁶¹ In 2004, nearly 20 small cities sued five gas producers, alleging they flexed their market power to raise gas prices charged to the public electric utilities.⁶²

National pipeline concentration has increased dramatically since the 1970s, when most of the interstate pipelines were independent.⁶³ But by 2000, just five firms owned the approximately 25 interstate pipelines.⁶⁴ The market share of the top four natural gas pipeline firms surged from 63 percent in 1992 to 80 percent in 2006.⁶⁵

⁴⁹ Balto and Mongovern (2001) at 538.

⁵⁰ Moss, Diana. “Natural gas pipelines: can merger enforcement preserve the gains from restructuring.” In Carstensen, Peter C. and Susan Beth Farmer (Eds.). (2008). *Competition Policy and Merger Analysis in Deregulated and Newly Competitive Industries*. Northampton MA: Edward Elgar at 45.

⁵¹ Balto and Mongovern (2001) at 548.

⁵² Savitski, David W. “Price tests for market power analysis of natural gas storage providers.” *Energy Law Journal*. Vol. 37, No. 177. 2016 at 178.

⁵³ Juris (1998) at 2.

⁵⁴ Clancy (2007) at 9.

⁵⁵ Moss (2008) at 31.

⁵⁶ Spence and Prentice (2012) at 191.

⁵⁷ Clancy (2007) at 9.

⁵⁸ Betrocco, Riccardo et al. Bain & Company. “Preparing for the coming wave of consolidation in midstream oil and gas.” 2015 at 3.

⁵⁹ Moss (2008) at 45.

⁶⁰ Savitski (2016) at 182.

⁶¹ Doanne, McAfee and Williams (2004) at 781.

⁶² Murray and Zhou (2008) at 749.

⁶³ Leitzinger and Collette (2002) at 95.

⁶⁴ *Ibid.*

⁶⁵ Moss (2008) at 47; Clancy (2007) at 9

Since then, increased dependence on unconventional gas, particularly shale gas, from newly producing regions has been accompanied by new pipeline construction. From 2008 to 2013, an additional 110 billion cubic feet in capacity was added by multiple of firms.⁶⁶ That expansion has reduced the four-firm concentration levels over the past decade, but recent and proposed mergers are set to increase the industry concentration once again. The proposed Enbridge-Spectra merger would raise the national four-firm market share by a relative 7 percent, from 58 percent in 2015 to 62 percent after the merger.⁶⁷

High levels of pipeline concentration generally lead to higher prices — unless there are few barriers to new market entrants, there is a highly elastic demand and or countervailing buyer power.⁶⁸ None of these conditions credibly exist in the natural gas pipeline industry. Consumers have inelastic demand for natural gas for residential heating, cooking and hot water.⁶⁹ The demand for natural gas transportation services from shippers is *lower* than for consumers because shippers cannot generally pass on the full price increases to consumers.⁷⁰

B. Proposed Merger Would Exacerbate Horizontal Concentration, Enhance Market Power

The proposed merger would exacerbate market power and economic concentration that could not be remedied by a new market entrant. There are significant barriers to entry in the pipeline industry that preclude new rivals from emerging to restore competitive balance to the

marketplace. Building new pipelines requires substantial sunk investments, significant fixed costs and take a long time to approve and construct.⁷¹ Potential entrants also face the barrier of securing sufficient customers in the new market with sufficient long-term contracts to justify the considerable investment.⁷² As the Enbridge CEO admitted, “this infrastructure is so hard to duplicate.”⁷³

Horizontal mergers of rivals are the most likely to create anticompetitive accumulations of market power.⁷⁴ Mergers that create sufficient market power enable the merged natural gas pipeline to withhold capacity or raise rivals’ costs.⁷⁵ Pipeline mergers can raise concentration levels sufficiently to presumptively enable the merged company to exercise unilateral market power.⁷⁶ Companies pursue mergers and takeovers to “acquire and wield market power.”⁷⁷ Pipeline mergers can “increase market concentration in relevant markets, creating or enhancing the ability and/or incentive of the merged firm — unilaterally or in coordination with other firms — to adversely affect prices and output.”⁷⁸

The delivery of natural gas is a regional market. A 2008 study of natural gas bottlenecks concluded that “The physical natural gas market is diverse, and viewing it as a single, unchanging national market is a simplification that is probably misleading.”⁷⁹ The natural gas pipeline market could conceivably be considered a national interstate pipeline market.⁸⁰ The deregulation and unbundling of

⁶⁶ U.S. Department of Energy. “Quadrennial Energy Review First Installment: Transforming U.S. Energy Infrastructures in a Time of Rapid Change.” April 2015 at NG-31.

⁶⁷ Food & Water Watch analysis EIA Capacity Database.

⁶⁸ Doanne, McAfee and Williams (2004) at 779.

⁶⁹ Spence and Prentice (2012) at 165.

⁷⁰ McAfee, R. Preston and Philip J. Reny. “The role of excess capacity in determining market power in natural gas transportation markets.” *Journal of Regulatory Economics*. Vol 32. 2007 at 213 and at note 25.

⁷¹ Moss (2008) at 45 to 46.

⁷² Balto and Mongovern (2001) at 538.

⁷³ Enbridge Inc. Transcript of investor conference call. September 6, 2016.

⁷⁴ LaRue, Paul H. “Antitrust and the natural gas industry.” *Energy Law Journal*. Vol. 11, No. 37. 1990 at 41.

⁷⁵ Moss (2008) at 44.

⁷⁶ Balto and Mongovern (2001) at 543.

⁷⁷ *Ibid.* at 530.

⁷⁸ Moss (2008) at 40.

⁷⁹ Murray and Zhou (2008) at 764.

⁸⁰ Doanne, McAfee and Williams (2004) at 777.

natural gas services and ensured open-access to gas pipeline networks make it easier to substitute gas supplies and services from throughout the national network.⁸¹ Even though larger customers can theoretically tap into a national natural gas supply, concentration in the consumption market “will probably remain high.”⁸² In a few specific geographic markets in the El Paso-Coastal merger, the FTC determined that the deregulated market nonetheless failed to ensure sufficient transportation and supply alternatives.⁸³

Pipeline markets consist of an origin (production region), destination (consuming region) and route markets.⁸⁴ Most geographic markets are served by a small number of major pipeline companies.⁸⁵ In many gas production regions, a few firms control the majority of pipeline capacity.⁸⁶ The destination market covers the ability of end users (gas-fired power plants, utilities and customers) to secure gas deliveries.⁸⁷ The route market addresses whether there are sufficient parallel transportation routes to deliver gas from the origin to the destination market — although the paths need not be literally parallel, but be able to transport the gas from the supply market to the consumer market.⁸⁸

Natural gas prices in the U.S. national market are roughly the same after accounting for transportation costs.⁸⁹ But pipeline transportation costs can represent a significant share of the final price of natural gas.⁹⁰ The difference between natural gas prices at any two places can be attributed to transportation costs (pipeline tariffs) *and* market

concentration.⁹¹ Mergers that create market power enable pipeline companies to take advantage of bottlenecks and other regional differences to raise prices.

Bottlenecks in natural gas transmission between regions have prevented natural gas from reaching equilibrium prices through arbitrage especially during peak demand periods.⁹² The regional inefficiencies can be demonstrated by the 10 percent decline in the number of gas hubs included in the *Gas Daily* price surveys between 2000 and 2015.⁹³ A 2007 study found that there were important natural gas bottlenecks between Kansas and the Chicago city gate prices and Louisiana and hubs in Chicago and Detroit.⁹⁴ The study also found that the Northeast and Midwest markets were relatively isolated with limited price equilibrium adjustment with the national market.⁹⁵

Pipelines with market power can raise prices rapidly when gas prices rise but lower them more slowly when gas prices decline.⁹⁶ A 2008 study found that although many hubs rapidly reached price equilibria with national gas prices, nearly 20 percent of hubs (4 of 19) had asymmetric price responses to national price changes that were consistent with the exercise of market power.⁹⁷ The proposed merger would create enough market power in regional markets for Enbridge-Spectra to reduce output and raise prices.

⁸¹ Moss (2008) at 45.

⁸² *Ibid.*

⁸³ Balto and Mongovern (2001) at 556.

⁸⁴ Doanne, McAfee and Williams (2004) at 776.

⁸⁵ Leitzinger and Collette (2002) at 80.

⁸⁶ Moss (2008) at 45.

⁸⁷ *Ibid.*

⁸⁸ Doanne, McAfee and Williams (2004) at 776.

⁸⁹ *Ibid.* at 790.

⁹⁰ Gordon, Gunsch and Pawluk (2003) at 473.

⁹¹ Marmer, Vadim, Dmitry Shapiro and Paul MacAvoy. “Bottlenecks in regional markets for natural gas transportation services.” *Energy Economics*. Vol. 29. 2007 at 38.

⁹² Brown, Stephen P.A. and Mine K. Yücel. Federal Reserve Bank of Dallas. “Deliverability and Regional Pricing in U.S. Natural Gas Markets.” Working Paper 0802. 2008 at 12.

⁹³ Murray and Zhou (2008) at 749; Platts. *Gas Daily*. June 22, 2015.

⁹⁴ Marmer, Shapiro and MacAvoy (2007) at 42.

⁹⁵ *Ibid.* at 44.

⁹⁶ Murray and Zhou (2008) at 748.

⁹⁷ *Ibid.* at 763.

i. Merger Increases Market Power in Key Regional Markets

The proposed Enbridge-Spectra merger joins the ninth and fourth largest pipeline firms, respectively, with 20 interstate pipelines stretching 22,700 miles that delivered 7.1 quadrillion BTUs of natural gas in 2015.⁹⁸ The deal is largely a market extension acquisition, enabling Enbridge to instantly build a pipeline footprint across the U.S. market. Most of the past pipeline mergers were geographically complementary, essentially market extension mergers bringing firms into new markets by buying up new pipeline networks.⁹⁹

Spectra's national pipeline network connects Gulf Coast gas fields with consumer markets across the Midwest, Mid-Atlantic and New England and controls one of the biggest pipelines serving New York City.¹⁰⁰ Other pipelines across the Southeast, including Florida, connect to this Spectra's main transcontinental Texas Eastern pipeline that connect that also links to shale gas production and storage in Pennsylvania.¹⁰¹ Enbridge's gas pipelines stretch from North Dakota through Chicago to Michigan, connecting the Western Alberta gas plays and the Bakken shale play with consumer markets in the Midwest as well as connecting to the Gulf Coast oil and gas fields.¹⁰²

But the proposed merger has special impact in the regions and markets where the two firms already overlap (see Table 3). Market shares are appropriately based on pipeline capacity;

and the inelastic demand for natural gas makes the Herfindahl-Hirschman Index (HHI) a good proxy for market power.¹⁰³ Mergers can increase market power “simply by eliminating competition between the merging parties,” as is the case in these overlapping markets.¹⁰⁴

Food & Water Watch analyzed data from the Energy Information Administration of the U.S. Department of Energy (EIA) and found three types of markets where the proposed merger would substantially increase concentration and would likely increase market power enabling the firm to exert unilateral and coordinated monopoly power.¹⁰⁵ First, the merger substantially increases concentration in the origin market of delivering offshore natural gas from the Gulf of Mexico to Louisiana; second, it substantially increases control of the flow of natural gas in the route market crossing the U.S. Canada border; and third, it increases concentration in route and destination markets in several Midwestern states.

⁹⁸ Food & Water Watch analysis of “PGJ Annual 500 Report.” *Pipeline & Gas Journal*. November 2016 at 25 to 28.

⁹⁹ Leitzinger and Collette (2002) at 95.

¹⁰⁰ Dawson and McKinnon (September 6, 2016); Hunn and Eaton (September 7, 2016); Spectra Energy SEC 10-K (December 31, 2015) at 6 to 7.

¹⁰¹ Spectra Energy SEC 10-K filing (December 31, 2015) at 6, 8 and 12.

¹⁰² Enbridge Inc. 2015 Annual Report at 65 to 66.

¹⁰³ Doanne, McAfee and Williams (2004) at 797 and 798

¹⁰⁴ U.S. Department of Justice/Federal Trade Commission (DoJ/FTC). 2010 Horizontal Merger Guidelines. August 19, 2010 at 2.

¹⁰⁵ EIA Capacity Database. Food & Water Watch analyzed the combined capacity into and out of each state or region; pipeline ownership was determined through corporate websites; pipeline partnerships were attributed to the majority stakeholder and joint 50-50 partnerships were divided equally between the two owning firms. All data from 2015.

Table 3. Enbridge-Spectra Overlapping Natural Gas Pipeline Markets 2015

Market	Firm	Pre-Merger				Post-Merger				Merger Δ	
		Rank	Market Share	HHI	CR-4	Rank	Market Share	HHI	CR-4	Δ HHI	Δ CR-4
Gulf Offshore-Louisiana	Enbridge	2	14.6%	5,606	74.9%	2	18.6%	6,223	78.9%	617	4.0%
	Spectra	7	4.0%								
Canada-U.S.	Enbridge	2	20.2%	3,157	84.9%	2	26.9%	3,426	91.6%	269	6.7%
	Spectra	5	6.7%								
Michigan	Enbridge	2	25.1%	4,383	99.5%	2	28.2%	4,539	100.0%	156	0.5%
	Spectra	4	3.1%								
Indiana	Enbridge	4	8.8%	1,966	76.1%	4	14.7%	2,070	82.0%	104	5.9%
	Spectra	7	5.9%								
Louisiana	Enbridge	8	8.0%	1,433	66.0%	4	13.1%	1,515	68.1%	82	2.1%
	Spectra	6	5.1%								
Illinois	Enbridge	5	10.7%	1,554	71.3%	5	13.0%	1,604	71.3%	50	0.0%
	Spectra	9	2.3%								
New York	Enbridge	8	0.3%	1,982	80.1%	2	24.4%	1,998	80.4%	16	0.3%
	Spectra	2	24.0%								
Oklahoma	Enbridge	10	1.7%	1,692	72.8%	8	1.9%	1,693	72.8%	1	0.0%
	Spectra	8	0.2%								
Missouri	Enbridge	8	0.3%	1,689	77.3%	7	4.7%	1,691	77.3%	2	0.0%
	Spectra	7	4.3%								

Source: Food & Water Watch analysis of EIA state-to-state capacity database. Pipeline capacity market share for combined entry/exit pipelines.

a. Gulf Coast-Louisiana Origin Market

The origin market between offshore Gulf of Mexico natural gas production platforms and the pipelines to the Louisiana market, with its connections to national interstate pipelines and natural gas processing plants is already highly concentrated. Enbridge operates gas gathering and delivery pipelines in the Gulf of Mexico that deliver 60,000 6.5 billion cubic feet of natural gas per day.¹⁰⁶ Spectra has pipelines that stretch 100 miles into the Gulf of Mexico

with an additional 300 miles of pipeline gathering gas and connecting it to other transmission lines.¹⁰⁷

In 2015, the HHI concentration index for pipelines between the Gulf and Louisiana exceeded 5,600 and the proposed merger would increase the concentration by over 600 to over 6,200. According to the Federal Trade Commission/Department of Justice 2010 Horizontal Merger Guidelines, mergers that

¹⁰⁶ Enbridge Inc. 2015 Annual Report at 39 and 68.

¹⁰⁷ Spectra Energy SEC 10-K filing (December 31, 2015) at 6.

Table 4. Change in Post-Merger Gap Between Enbridge-Spectra and its Nearest Pipeline Rivals

Market	Pre-Merger Rank	Rival	Market Share Multiple	Post-Merger Rank	Rival	Market Share Multiple
Canada-U.S.	2	3 (Williams)	2.9	2	3 (Williams)	3.8
		4 (Kinder Morgan)	3.0		4 (Kinder Morgan)	4.0
		5 (Spectra)	3.0		5 (National Fuel)	9.4
		6 (National Fuel)	7.1		6 (OneOK Partners)	11.9
Gulf Offshore-Louisiana	2	3 (TransCanada)	1.0	2	3 (TransCanada)	1.3
		4 (Williams)	1.0		4 (Williams)	1.3
		5 (Energy Transfer)	1.1		5 (Energy Transfer)	1.4
		6 (Loews/Boardwalk Pipeline)	1.9		6 (Loews/Boardwalk Pipeline)	2.4
Michigan	2	3 (Energy Transfer)	2.3	2	3 (Energy Transfer)	2.5
		4 (Spectra)	8.1		4 (Berkshire Hathaway)	55.5
		5 (Berkshire Hathaway)	49.4			
Indiana	4	5 (Loews/Boardwalk Pipeline)	1.1	4	5 (Loews/Boardwalk Pipeline)	1.8
		6 (OneOK Partners)	1.2		6 (OneOK Partners)	2.0
		7 (Spectra)	1.5		7 (Kinder Morgan)	6.3
		8 (Kinder Morgan)	3.8			
Louisiana	6 (Spectra)	7 (Centerpoint Energy)	1.6	4	5 (Williams)	1.2
		8 (Enbridge)	1.6		6 (TransCanada)	1.3
		9 (Qatar Petroleum)	2.3		7 (Centerpoint Energy)	2.6
		10 (Brookfield Infrastructure)	9.2		8 (Qatar Petroleum)	3.8

result in highly concentrated markets (with an HHI over 2,500, well below this market) and have an increase of over 200 points are “presumed to be likely to enhance market power.”¹⁰⁸ In the Enterprise Gulf Terra and the Arkla-TransArk cases and others, the FTC required a divestiture of pipeline assets because the relevant market was already highly concentrated and there was limited potential for market entry.¹⁰⁹

The proposed merger gives Enbridge-Spectra more market power over its rivals by increasing the gap between the firm and its rivals’ market shares. Enbridge has already positioned itself to make incremental investments to expand its network to capture any new developments or production in offshore gas platforms.¹¹⁰ Today, second ranked Enbridge is essentially bunched closely with its nearest rivals, third through fifth ranked TransCanada, Williams and Energy Transfer have nearly identical market shares. But the proposed merger would make Enbridge-Spectra 30 to 40 percent bigger than these rivals and more than twice as big as sixth place Boardwalk Pipeline (see Table 4).

¹⁰⁸ DoJ/FTC (2010) at 19.

¹⁰⁹ FTC. In the Matter of Enterprise Products Partners L.P., et al. Consent Order. Docket C-4123. November 23, 2004. Federal Trade Commission Decisions. Vol. 138. 2004 at 838; FTC. In the Matter of Arkla Inc. Consent Order. Docket C-3265. October 10, 1989.

¹¹⁰ Enbridge Inc. 2015 Annual Report at 69.

b. U.S.-Canada Cross-Border Market

Only ten firms control all of the natural gas that flows across the U.S.-Canada border. The proposed merger strengthens Enbridge's market position in this route market. TransCanada and Enbridge alone control more than 70 percent of the natural gas pipeline capacity connecting the United States and Canada (50.9 percent and 20.2 percent, respectively) and the route market is highly concentrated with an HHI concentration index of over 3,150.

The proposed merger substantially increases concentration in this route market and creates an important path for Enbridge natural gas into the Pacific Northwest through Spectra's Western Canada Transmission & Processing segment.¹¹¹ Enbridge has been unable to build infrastructure connecting its Western Alberta gas and oil fields to British Columbia terminals. The proposed merger would raise concentration by nearly 270 to 3,426 — again a substantial increase in an already highly concentrated market that is presumed to increase market power.

The proposed merger would also substantially widen the gap between Enbridge-Spectra and the smaller rivals. Currently, Enbridge is about three times larger than Williams, Kinder Morgan and Spectra; after the merger, Enbridge-Spectra would be about four times larger than Williams and Kinder Morgan, nine times larger than National Fuel and nearly 12 times larger than OneOK Partners. The addition of new Enbridge routes into the Pacific Northwest and control of over one-quarter of the cross-border capacity (26.9 percent) would give Enbridge-Spectra the market power to raise prices.

c. Midwestern and Gulf Coast Route/Destination Markets

The proposed merger would entrench Enbridge-Spectra's market power in key Midwestern and Gulf Coast route markets that already face persistent bottlenecks that make it easier for pipeline firms to exert market power. The proposed merger would reduce the number of pipeline firms in Michigan from five to four and substantially increase concentration in an already highly concentrated market. Currently, the HHI concentration index in Michigan is nearly 4,400 with two-firm concentration of over 85 percent.

The proposed merger would raise the HHI index to over 4,500. The FTC Horizontal Merger Guidelines state that mergers in highly concentrated markets that raise concentration by over 100 points “potentially raise significant competitive concerns and often warrant scrutiny.”¹¹² Currently Enbridge is more than twice as big as Energy Partners, eight times larger than Spectra and nearly 50 times bigger than Boardwalk; after the merger, Enbridge-Spectra would have a 20 percent bigger relative market share advantage over Energy Partners and would be 55 times bigger than Boardwalk. TransCanada and Enbridge-Spectra alone would control more than 75 percent of the market.

When there are few competitors, there is little incentive to aggressively compete on price or contract terms. The proposed merger would increase “the risk of coordinated, accommodating, or interdependent behavior among rivals.”¹¹³ When natural gas pipeline mergers significantly raise concentration levels, it is likely that the merged firm can exercise both unilateral and coordinated market power.¹¹⁴ This would make it easier for the

¹¹¹ Spectra 2015 10-K at 19.

¹¹² DoJ/FTC (2010) at 19.

¹¹³ *Ibid.* at 2.

¹¹⁴ Moss (2008) at 44.

remaining rivals to exercise coordinated market power that would disadvantage consumers (ratepayers) and gas producers.

Tacit collusion allows industry to raise prices above a competitive price-cost margin that allows oligopolistic rivals to capture profits. When there are few competitors, there is little incentive to aggressively compete on price or contract terms. In the Southern-CMS case, the FTC found that a proposed merger exacerbating consolidation in a highly-concentrated market with two dominant players, as in Michigan, would increase unilateral market power but also increase “the likelihood of, or facilitating, collusion or coordinated interaction.”¹¹⁵

In Indiana and Louisiana, the proposed merger would substantially increase concentration in moderately concentrated markets. In Indiana, the merger would increase the HHI concentration index by more than 100 points from 1,966 to 2,070 and give Enbridge-Spectra more than two times the market shares of the smaller participants. In Louisiana, the proposed merger would make an unconcentrated market moderately-concentrated and increase the HHI by nearly 100 points, rising from 1,433 to 1,515, which “potentially raise significant competitive concerns and often warrant scrutiny.”¹¹⁶

C. Proposed Merger Would Exacerbate Vertical Concentration, Enhance Market Power

Enbridge and Spectra are both vertically integrated natural gas service companies that deliver gas from wellhead to gas meter. Generally, the petroleum fuel industry is vertically integrated with pipeline firms providing contractual delivery services between

gas and oil production, refineries and consumers.¹¹⁷ The proposed merger strengthens this vertical integration along the entire supply chain and makes it easier for Enbridge-Spectra to disadvantage its rivals or competitors.

Enhanced market power can make it likely that the firm could “profitably and effectively engage in exclusionary conduct.”¹¹⁸ Monopolists can leverage market power by raising rivals’ costs by withholding or increasing the price of inputs and undermine competition, harming consumers.¹¹⁹

Enbridge-Spectra would be a full-service natural gas and energy firm. In addition to the interstate transportation pipeline business (above), natural gas processing and storage (below), the two firms overlap throughout the energy supply chain. Spectra is one of the largest natural gas gathering companies in the United States and Enbridge has a growing gathering and midstream business.¹²⁰ The two firms serve more than 3.5 million natural gas utility customers, mostly in Ontario and New York State.¹²¹ Enbridge controls nearly 2,000 megawatts of renewable electricity generation, including wind, solar, geothermal, hydroelectric and waste heat recovery.¹²² The proposed merger would join Enbridge’s renewable power generation with Spectra’s connection to gas-fired electricity markets that could strengthen the delivery of electricity.¹²³ Enbridge is eager to expand into gas-fired

¹¹⁷ Moss (2008) at 31.

¹¹⁸ DoJ/FTC (2010) at 2.

¹¹⁹ Rosch, J. Thomas. Commissioner, FTC. “The Challenge of Non-Horizontal Merger Enforcement.” Fordham Competition Law Institute’s 34th Annual Conference on International Antitrust Law & Policy. New York City. September 27-28, 2007 at 3 to 4.

¹²⁰ Spectra Energy SEC 10-K filing (December 31, 2015) at 4; Enbridge 2015 Annual Report at 18.

¹²¹ Enbridge Inc. [Investor presentation] (September 6, 2016) at 8.

¹²² Enbridge Inc. 2015 Annual Report at 13.

¹²³ Enbridge Inc. Transcript of investor conference call. September 6, 2016.

¹¹⁵ FTC. In the Matter of Southern Union Company, et al. Consent Order. Docket C-4087. July 16, 2003. Federal Trade Commission Decisions. Vol. 136. 2003 at 100 to 103.

¹¹⁶ DoJ/FTC (2010) at 19.

electricity generation to further diversify its vertical portfolio.¹²⁴

Many pipeline firms have joined with electric power companies and become energy companies that also provide additional energy services to customers.¹²⁵ These vertically integrated firms have substantial advantages over their stand-alone rivals because of shared financial capacity, extensive knowledge of the specific pipeline's natural gas supply chain and the infrastructure of the pipeline itself.¹²⁶ This structure may be motivated by efficiency but can also be driven by a desire to exercise market power.¹²⁷

i. Proposed Merger Would Create Greater Incentive to Raise Gas Utility Rates in New York

Enbridge currently provides gas distribution services (utility gas service) to residential, commercial and industrial customers in Buffalo and St. Lawrence counties, New York which are regulated by the New York State Utility Commission.¹²⁸ Both Enbridge and Spectra also provide utility gas service in Ontario, Canada.¹²⁹ Vertically integrated firms have an incentive to use their market power over transportation to raise prices for natural gas purchasers — gas distribution utilities or gas-fired power plants.¹³⁰

When a gas pipeline owns a gas distribution utility, it has an incentive to artificially raise the prices it charges to its utility arm for gas. The gas utility would pass on these higher costs to

ratepayers in the form of higher prices and state utility commissioners are typically unable to police pipelines charging artificially high input costs to drive up utility rates.¹³¹ This allows the firm to generate excess profits from supplying natural gas at inflated prices.¹³²

The 1984 Vertical Merger Guidelines specifically highlight the risk of self-dealing between pipelines and utilities. Convergence mergers “may be used by monopoly public utilities subject to rate regulation as a tool for circumventing that regulation” that would allow a merged firm to “[sell] to itself and might be able arbitrarily to inflate the prices of internal transmissions.”¹³³ The proposed merger would strengthen Enbridge-Spectra's market power over natural gas transmission, making it easier to raise prices, especially the addition of the Texas Eastern pipeline that serves New York. Moreover, Enbridge-Spectra would have considerable market power over gas transportation across the U.S.-Canada border, where both regional gas utilities are located in Western and Upstate New York.

ii. Proposed Merger Would Create Incentive for Disadvantage Rival Gas-Fired Electricity Generation, Raise Consumer Electricity Prices

Natural gas pipeline companies that also generate electricity can use their vertically integrated market power to disadvantage their rivals. A pipeline company that supplies rival utilities or power plants could use its market power to raise its rival's costs to reduce their competitiveness.¹³⁴ Vertically integrated pipeline-energy firms could use their upstream market power to disadvantage downstream rivals and make it harder for customers to

¹²⁴ Enbridge Inc. Management Discussion and Analysis. December 31, 2015 at 17.

¹²⁵ Balto and Mongovern (2001) at 535.

¹²⁶ LaRue (1990) at 48.

¹²⁷ Lyon (2000) at 58.

¹²⁸ Enbridge Inc. 2015 Annual Report at 59 to 60; Hunn and Eaton (September 7, 2016).

¹²⁹ Enbridge Inc. 2015 Annual Report at 1; Spectra Energy SEC 10-K filing (December 31, 2015) at 17.

¹³⁰ Lyon (2000) at 55.

¹³¹ Balto and Mongovern (2001) at 531.

¹³² Lyon (2000) at 59.

¹³³ U.S. Department of Justice. Merger Guidelines: Non-Horizontal Merger Guidelines. June 14, 1984 at 30.

¹³⁴ Balto and Mongovern (2001) at 531.

switch to alternative electricity vendors.¹³⁵ The merged company could raise the costs for its power producing rivals to raise the price of its own electricity or to sell greater volumes of electricity — ultimately raising prices for consumers and reducing their choices.¹³⁶

Enbridge's utilities provide electricity to 3.5 million customers in Ontario.¹³⁷ Enbridge is currently investing in gas-fired electricity plants as part of an ongoing \$26-billion capital investment scheduled to bring these power generation online by 2019.¹³⁸ Vertically integrated natural gas-energy generation companies have asymmetric informational advantages over their rivals that allow them to increase the price they charge for natural gas without losing long-term contracts.¹³⁹

Natural gas convergence mergers combine the transportation of natural gas with electricity generation.¹⁴⁰ Firms that sell both electricity and natural gas have the incentive to raise prices on both energy products; electricity rates can be more than 4 percent higher from dual gas-electricity generation firms.¹⁴¹ The proposed merger would make it easier for Enbridge-Spectra to overcharge rival gas-fired electricity plants and accelerate the development of Enbridge's own gas-fired power generation business. Ultimately, this kind of merger could create an incentive for the pipeline firm to use exclusionary strategies for the upstream transportation division to raise

prices and increase downstream electricity prices.¹⁴²

D. Proposed Merger Would Reward Low-Quality Pipeline Companies with Indifferent Safety Records

The proposed merger would exacerbate quality problems from the long-standing and indifferent pipeline safety records of Enbridge and Spectra. Although FERC believes that all pipelines offer comparable levels of service quality for delivering natural gas,¹⁴³ for communities living along the pipeline routes, the most important measurement of quality is the safety and integrity of the pipeline itself. Both Enbridge and Spectra have checkered pipeline safety records, with repeated and extensive leaks and spills that have impacted local communities and damaged the environment.

The FTC and FERC should consider these quality problems when reviewing the proposed Enbridge-Spectra merger. The Horizontal Merger Guidelines recognize that “Enhanced market power can also be manifested in non-price terms and conditions that adversely affect customers, including reduced product quality.”¹⁴⁴ The FTC and Department of Justice commented to the Organization of Economic Co-operation and Development that “The non-price effects of a merger – such as product quality [...] – are no less important to consumer welfare, and should play an important role in the decision-making of a competition agency.”¹⁴⁵ Moreover, FERC evaluates the impact of proposed pipeline mergers on the ‘public interest,’ including rates

¹³⁵ Center of Energy Economics. Bureau of Economic Geology. Jackson School of Geosciences. University of Texas at Austin. New Era Case Study. “Convergence merger of electric and natural gas utilities.” 2002 at 4.

¹³⁶ Balto and Mongovern (2001) at 558.

¹³⁷ Enbridge Inc. Transcript of investor conference call. September 6, 2016.

¹³⁸ Enbridge, Inc. 2015 Corporate Social Responsibility Report. March 2016 at 93.

¹³⁹ Balto and Mongovern (2001) at 558.

¹⁴⁰ Moss (2008) at 40.

¹⁴¹ Knittel, Christopher R. “Market structure and the pricing of electricity and natural gas.” *Journal of Industrial Economics*. Vol. LI. June 2003 at 167 and 183.

¹⁴² Moss (2008) at 40.

¹⁴³ Doanne, McAfee and Williams (2004) at 775.

¹⁴⁴ DoJ/FTC (2010) at

¹⁴⁵ FTC/DoJ. “Roundtable on Impact Evaluation of Merger Decisions: Note by the United States.” Organisation for Economic Co-operation and Development. DAF/COMP/WD(2011)58. June 20, 2011 at 3.

and quality.¹⁴⁶ While FERC does not have jurisdiction over mergers, it does consider the impact of mergers on competition to certify that the merger meets the public interest standard.¹⁴⁷

Enbridge has a questionable pipeline safety track record. From 1996 to 2015, the number of Enbridge's leaks and releases more than doubled, from 54 to 117 with nearly 1,400 incidents.¹⁴⁸ Over the past five years Enbridge released over 54,000 barrels of oil and natural gas liquids.¹⁴⁹ Spectra has a comparably spotty safety record over recent years. It was fined over \$134,000 in fines for accidental releases and negligence from its pipelines between 2013 and 2015.¹⁵⁰ There were nearly 40 U.S. federal enforcement actions against Spectra pipelines from 2006 to 2016.¹⁵¹

Since 2010, Enbridge has had several substantial accidents in the Midwest. In 2014, Enbridge's Line 5 was found in violation of its 1953-easement spacing requirements for

missing support structures.¹⁵² Line 5's aging condition only amplifies the risk. In 2013 a filmed dive along Line 5, sponsored by the National Wildlife Federation, discovered undetected "structural defects," and in December 2014 a "pinhole" was detected in the Upper Peninsula.¹⁵³ In 2010, Enbridge's Line 6B spilled up to 1 million gallons (23,000 barrels) of tar sands crude devastating sensitive ecosystems, including 61 miles of the Talmadge Creek and Kalamazoo River, and impacted nearby communities.¹⁵⁴ Locals exposed to the spill reported troubling neurological, respiratory and gastrointestinal problems.¹⁵⁵ Enbridge spent \$1.2 billion on fines and mitigation as well as the environmental cleanup, restoration or creation of 300 acres of wetlands in perpetuity.¹⁵⁶ The National Transportation Safety Board attributed

¹⁴⁶ 15USC§717(a) and 15USC§717(c-1). Moss (2008) at 39.

¹⁴⁷ Balto and Mongovern (2001) at 356.

¹⁴⁸ Food & Water Watch data analysis of Enbridge company-wide reportable spills, leaks and releases. Data can be found in Addendum to Enbridge's 2013 Corporate Social Responsibility Report, at 2 and 3; Enbridge 2010 Corporate Social Responsibility Report at 84; Enbridge 2006 Corporate Social Responsibility Report at 29; Enbridge 2001 Environment, Health & Safety Report at 10; Enbridge 2015 Environment, Health & Safety Report at 24 and 26.

¹⁴⁹ Enbridge. 2015 Annual Report at 14.

¹⁵⁰ Canada National Energy Board. Notice of Violation to Westcoast Energy Inc. carrying on business as Spectra Energy Transmission, Reference Number AMP-001-2015. January 22, 2015; Spectra Energy. [Website.] Data Tables. Summary of 2013 – 2015 Environmental Performance Data. Accessed July 21, 2016, available at

<http://www.spectraenergy.com/Sustainability/Performance-and-Reporting/Data-Tables/>

¹⁵¹ U.S. Department of Transportation. Pipeline & Hazardous Materials Safety Administration. Pipeline Operator Information. Filter: Spectra. Accessed September 29, 2016, available at

<http://primis.phmsa.dot.gov/previewamur/reports/operator/Operatorlist.html?#>

¹⁵² Schuette, Bill (Attorney General) and Dan Wyant (Director, Michigan DEQ.) Letter to Bradley Shamla, Vice President, U.S. Operations, Enbridge Energy Limited Partnership. "Enbridge Lakehead System Line 5 Pipelines at the Straits of Mackinac." July 24, 2014.

¹⁵³ Great Lakes Commission. "Crude Oil Transport: Risks and Impacts." Issue Brief 3. September 30, 2014 at 3; Office of Attorney General Bill Schuette. [Press Release.] "Wyant, Schuette Issue Statement on Enbridge U.P. Pipeline Incident Following Pipeline Task Force Meeting." December 16, 2014; Cassleman, David. "'Pinhole' gas leak found on Enbridge's Line 5." *Interlochen Public Radio*. December 16, 2014.

¹⁵⁴ McGowan, Elizabeth and Lisa Song. "The dilbit disaster: Inside the biggest oil spill you've never heard of, part I." *InsideClimateNews*. June 26, 2012; U.S. Environmental Protection Agency. [Fact Sheet.] "Oil Cleanup Continues on Kalamazoo River." June 2013; Shogren, Elizabeth. "EPA: Tar sands pipelines should be held to different standards." *NPR, All Things Considered*. April 24, 2013; Hasemyer, David. "The dilbit disaster 3 years later: Sunken oil is looming threat to Kalamazoo River." *InsideClimateNews*. July 25, 2013; Zerilli, Ursula. "Enbridge Inc. crews replace 6B oil pipeline in Mendon; \$1.3 billion project end slated for 2014." *Michigan Live*. August 13, 2013.

¹⁵⁵ Stanbury, Martha, et al. Michigan Department of Community Health. "Acute health effects of the Enbridge oil spill." November 2010 at 8 and 13; Anderson, Mitchell. "Spill from hell: diluted bitumen." *The Tyee*. May 5, 2012; Natural Resources Defense Council (NRDC). "Going in Reverse: The Tar Sands Threat to Central Canada and New England." June 2012 at 14 to 15.

¹⁵⁶ Enbridge. 2015 Annual Report at 78.

the spill to corrosion caused by “pervasive organizational failures.”¹⁵⁷ In 2010, Enbridge’s line 6A also burst spilling 270,000 gallons of heavy crude within 200 yards of a densely populated residential area and sensitive habitats causing \$46.6 million in damages.¹⁵⁸

There have been several dramatic safety lapses on Spectra pipelines. On New Year’s Eve 2013, a Maine Spectra compressor station had a major gas leak that lasted for 40 minutes after an equipment malfunction vented gas outside and automatically shut down the station.¹⁵⁹ In 2015, a section of purportedly inactive Spectra pipeline running under the Arkansas River ruptured, disconnecting a 400-foot segment of pipeline releasing 4 million cubic feet of natural gas.¹⁶⁰ In April 2016, a Spectra pipeline exploded in Salem Township, Pennsylvania, destroying a home, scorching 40 acres of farmland and injuring several people, including a man with third-degree burns on 75 percent of his body.¹⁶¹ The explosion was caused by corrosion that advanced five times faster than Spectra anticipated after a 2012 inspection.¹⁶²

The proposed merger would join two firms with poor safety records — and the rapid expansion of the pipeline network has contributed to the safety lapses. In 2006,

Enbridge admitted that the increase in leaks was “attributed to the growth and expansion of the Liquids Pipeline system.”¹⁶³ The FTC and FERC should consider this erosion of quality — pipeline safety — when considering the Enbridge-Spectra deal. The proposed merger would substantially expand the pipeline network and would likely make it more difficult for the joined firm to effectively monitor and maintain the safety of its pipelines.

¹⁵⁷ Mufson, Steven. “NTSB blames Enbridge, ‘weak’ regulations in Kalamazoo oil spill.” *Washington Post*. July 10, 2012.

¹⁵⁸ National Transportation Safety Board. Pipeline Accident Brief. (DCA-10-FP-009.) September 2013 at 1. <http://www.nts.gov/investigations/AccidentReports/Reports/PAB1303.pdf>

¹⁵⁹ Curtis, Abigail. “‘The most terrifying experience’: Residents question safety in wake of malfunction at Searsmont natural gas pipeline station.” *Bangor Daily News* (Maine.) January 15, 2014.

¹⁶⁰ Hardy, Benjamin. “Spectra Energy working to recover 400 feet of lost pipeline after blast on Arkansas River.” *Arkansas Times*. June 8, 2015.

¹⁶¹ Phillips, Susan. “PA Pipeline explosion: Evidence of corrosion found.” *Pennsylvania StateImpact*. May 4, 2016; Erdley, Debra. “Tests reveal no contamination from Salem Township pipeline explosion.” *TRIBLive*. May 20, 2016.

¹⁶² “PIPELINE BLAST: Fast corrosion caused Pa. natural gas leak.” *Associated Press*. September 15, 2016.

¹⁶³ Enbridge 2006 Corporate Social Responsibility Report at 29

III. Proposed Merger Would Enhance Monopoly Power in Natural Gas Processing

The proposed merger would increase consolidation in the natural gas processing industry and enhance Enbridge-Spectra's ability and incentive to exert market power to disadvantage natural gas suppliers (rival pipelines and gas producers) and consumers. In key markets, the proposed merger would substantially increase Enbridge-Spectra's capacity to raise consumer prices for processed gas products or raise rivals' costs or engage in exclusionary conduct that would disadvantage other pipelines or processing plants.

The proposed merger would enhance monopoly power in the natural gas processing services product market. Natural gas processing plants remove impurities and convert "wet" natural gas into "dry" gas (methane) and extracts propane, ethane, butane and other products through distillation.¹⁶⁴ Processing and fractionation is an essential step with no substitute.¹⁶⁵ Nearly all natural gas must be processed into pipeline ready gas and to further distill wet gas into other products.¹⁶⁶

The merger would join two natural gas processing powerhouses that would control 14.1 percent of the national natural gas processing capacity.¹⁶⁷ Spectra is currently the second largest natural gas processing company with 8.8 percent of the national market; Enbridge ranks second with 5.3 percent of the national processing capacity.

Enbridge's Aux Sable plant in Illinois extracts and fractionates natural gas at the end of its Alliance Pipeline.¹⁶⁸ Aux Sable is one of the biggest natural gas processing plants in the United States that was designed to serve interstate pipelines and the Chicago Hub consumer market with various hydrocarbon products.¹⁶⁹ It has also constructed a cryogenic natural gas processing plant in Texas that can turn 150 million cubic feet of natural gas into 8,500 barrels of NGLs per day.¹⁷⁰ Spectra also holds a 50 percent stake in the nation's biggest natural gas processor, DCP Midstream LLC (DCP), that controls about 400,000 barrels of natural gas liquids each day.¹⁷¹ DCP fractionates and processes natural gas and NGLs at 12 fractionation plants and 64 natural gas processing plants and operates in 17 states.¹⁷²

A natural gas processing firm with market power could make it costly for new firms to enter the market, manipulate the prices of processed gas products, disadvantage customers through sole-source requirements or tying of services or other products.¹⁷³ Processing acts as a production bottleneck; market concentration in this production bottleneck allows dominant firms to

¹⁶⁴ International Energy Agency (IEA). "Natural Gas Liquids: Supply Outlook 2008 to 2015." April 2010 at 8; Dismukes, D.E. Acadian Consulting Group for Bureau of Ocean Energy Management. "Onshore Oil and Gas Infrastructure to Support Development in the Mid-Atlantic OCS Region." BOEM 2014-647. July 2014 at 178.

¹⁶⁵ Balto and Mongovern (2001) at 547.

¹⁶⁶ IEA (2010) at 12; EIA. "Natural Gas Processing: The Crucial Link Between Natural Gas Production and Its Transportation Market." January 2006 at 1.

¹⁶⁷ All of the natural gas processing market data derived from Food & Water Watch analysis of EIA Processing Capacity. September 2015.

¹⁶⁸ Enbridge Inc. 2015 Annual Report at 19 and 34.

¹⁶⁹ EIA. "Natural Gas Processing: The Crucial Link Between Natural Gas Production and Its Transportation Market." January 2006 at 6.

¹⁷⁰ Enbridge Inc. 2015 Annual Report at 44.

¹⁷¹ Proctor, Cathy. "\$28B deal won't change Denver's DCP Midstream much." *Denver Business Journal*. September 6, 2016.; Enbridge Inc. Transcript of investor conference call. September 6, 2016.

¹⁷² Spectra Energy SEC 10-K filing (December 31, 2015) at 21.

¹⁷³ Canada National Energy Board and Competition Bureau. Joint Report. "Final Report to the Minister of Natural Resources and the Minister of Industry: Propane Market Review." April 25, 2014 at note 93 at 40.

	Pre-Merger				Post-Merger				Merger Δ	
Company	Rank	Market Share	HHI	CR-4	Rank	Market Share	HHI	CR-4	Δ HHI	Δ CR-4
Enbridge	1	30.1%	1,575	69.3%	1	41.6%	2,268	78.9%	692	9.6%
Spectra	4	13.3%								

withhold output to raise prices, use market power as leverage over downstream buyers or coordinate production with rivals.¹⁷⁴ In markets with few dominant natural gas processors, it is easier for firms to tacitly collude and monitor rivals' prices and services and cooperatively deter new entrants.¹⁷⁵

Markets are already highly concentrated because of significant economies of scale, high barriers to entry because of sunk costs, scale economies and plant customization.¹⁷⁶ Moreover, the volatility of processed natural gas product prices (like propane) create additional barriers to entry.¹⁷⁷ The majority of natural gas fractionation capacity is owned by only a few firms.¹⁷⁸ In the United States, "specialized midstream companies dominate gas processing," according to the International Energy Agency.¹⁷⁹ The number of natural gas processing companies has been declining even during the expansion of onshore natural gas production from unconventional wells. Over the past decade, the number of companies fell by 19 percent from 209 in 2004 to 169 in 2014.¹⁸⁰

¹⁷⁴ Moss, Diana. American Antitrust Institute. Prepared Statement. Is Market Concentration in the Petroleum Industry Harming Consumers? Hearing before the Joint Economic Committee. U.S. Congress. S. Hrg. 110-202. May 23, 2007 at 66.

¹⁷⁵ Canada National Energy Board and Competition Bureau (2014) at 41.

¹⁷⁶ Balto and Mongovern (2001) at 547.

¹⁷⁷ IEA (2010) at 16.

¹⁷⁸ Canada National Energy Board and Competition Bureau (2014) at 7. The Canadian market is substantially integrated with the U.S. market and the major players in Canada include Spectra and Enbridge, at 13 to 14.

¹⁷⁹ IEA (2010) at 17.

¹⁸⁰ EIA. "Natural Gas Processing: The Crucial Link Between Natural Gas Production and Its Transportation Market."

The geographic markets are regional. Most processing capacity is located near natural gas producing regions or along pipeline routes.¹⁸¹ Plants are built to access gas from pipelines, convenient to storage capacity and to deliver processed products to consumers.¹⁸²

A. Proposed Merger Would Create Midwestern Natural Gas Processing Monopoly

The proposed merger would create a dominant natural gas processing firm in the Midwest. The Department of Energy uses Census Divisions for its energy modeling projections, making the Midwest Census Division (East-North Central and West-North Central Census Divisions) appropriate for regional geographic market analysis.¹⁸³ This region comprises key pipeline routes (see above) as well as consumer markets. The 551 natural gas processing plants represent 8 percent of the plants and 9 percent of the national processing capacity.

The proposed merger would eliminate the current natural gas processing rivalry between Enbridge and Spectra. Enbridge's Aux Sable plant has 30 percent of the capacity in the Midwest and Spectra's DCP plant in Seward County, Kansas has 13 percent of the capacity (see Table 5). The proposed merger would give

January 2006 at 9; Food & Water Watch analysis of EIA Processing Capacity.

¹⁸¹ Dismukes (2014) at 187; EIA (2006) at 5.

¹⁸² Balto and Mongovern (2001) at 547.

¹⁸³ EIA. "Annual Energy Outlook 2016." DOE/EIA-0386(2016). August 2016 at E-1 and F-1. The states include Illinois, Indiana, Iowa, Kansas, Michigan, Minnesota, Nebraska, North Dakota, Ohio and South Dakota.

Table 6. Change in Post-Merger Gap Between Enbridge-Spectra and Its Natural Gas Processing Rivals

Enbridge Rank/Market Share	Rival	Enbridge Market Multiple	Enbridge-Spectra Rank/Market Share	Rival	Enbridge-Spectra Market Multiple
1 (30.1%)	Utica East Ohio Midstream (2)	2.1	1 (41.6%)	Utica East Ohio Midstream (2)	2.9
	MarkWest Energy (3)	2.3		MarkWest Energy (3)	3.1
	Spectra (4)	2.6		Linn Energy (4)	4.3
	Linn Energy (5)	3.1		OneOK (5)	8.8
	OneOK (6)	6.4		Hess (6)	11.6

Enbridge-Spectra nearly 42 percent of the Midwestern natural gas processing market, giving it substantial market power over its rivals and the ability to raise prices for processed gas products and make it possible to exclude rival natural gas pipelines from the essential natural gas processing market.

The proposed merger would increase concentration substantially in an already moderately-concentrated Midwestern natural gas processing market. It would take the market from just over the moderately-concentrated threshold of 1,500 (currently at 1,575) to nearly the highly-concentrated threshold of 2,500 (the merger would result in and HHI concentration index of 2,268). The proposed merger would increase the HHI concentration index by nearly 700 points — considerably more than the 100-point increase in moderately-concentrated markets that “potentially raise significant competitive concerns and often warrant scrutiny.”¹⁸⁴

The proposed merger substantially increases the size of Enbridge-Spectra compared to its nearest rivals. Before the merger, Enbridge is twice as big as the second and third biggest firms (Utica East Ohio Midstream, MarkWest Energy), three times larger than the fourth and fifth biggest firms (Spectra and Linn Energy) and more than six times larger than the sixth ranked and smaller firms. After the proposed merger, Spectra-Enbridge would be three times larger than the

second and third ranked firms, four times bigger than the fourth ranked firm and nearly 9 times larger than the fifth ranked and smaller firms.

B. Proposed Merger Would Create Risk of Vertical Power in Texas and Oklahoma Natural Gas Processing Industry

The proposed merger would also significantly increase concentration in natural gas processing in Oklahoma and Texas. These two states contain nearly half the natural gas processing plants in the country (46 percent) and two-fifths of processing capacity (40 percent). The proposed deal would create the biggest natural gas processor in Texas with 22 percent of statewide capacity and the second largest in Oklahoma with 18 percent of capacity (see Table 7). While these statewide markets would remain unconcentrated after the merger, the proposed merger would increase the HHI concentration index by more than 100 in Oklahoma (142) and nearly 200 in Texas (197). Higher increases in HHI represent greater “potential competitive concerns.”¹⁸⁵

The midstream natural gas market — including processing capacity — is poised for “an approaching wave of consolidation,” according to Bain Capital.¹⁸⁶ Much of the unconcentrated Texas and Oklahoma natural gas processing market is comprised of small, single-plant firms.

¹⁸⁴ DoJ/FTC (2010) at 19.

¹⁸⁵ DoJ/FTC (2010) at 19.

¹⁸⁶ Bertocco et al. (2015) at 1.

Table 7. Enbridge-Spectra Merger in Oklahoma and Texas Natural Gas Processing

Market	Company	Rank	Mkt. Share	HHI	CR-4	Rank	Mkt. Share	HHI	CR-4	Δ HHI	Δ CR-4	Enbridge-Spectra Pipeline Share	Processing/Pipeline Mkt. Share
Oklahoma	Enbridge	6	6.2%	1,113	58.5%	2	17.6%	1,255	64.8%	142	6.2%	1.9%	9.0
	Spectra	3	11.4%										
Texas	Enbridge	5	6.5%	854	49.5%	1	21.6%	1,052	56.0%	197	6.5%	4.1%	5.3
	Spectra	2	15.1%										

More than two-thirds of the Texas firms (38 of 54) have less than 1 percent of statewide capacity (accounting for less than 10 percent of the market combined); the smallest ten Oklahoma natural gas processors (42 percent of the firms) have less than 1 percent of statewide capacity (3 percent of the market combined). Enbridge-Spectra or other large firms could buy these smaller processing plants and increase concentration further, likely without crossing the Hart-Scott-Rodino threshold for FTC review.

Moreover, the proposed merger would exacerbate vertical market power, allowing Enbridge-Spectra to disadvantage pipeline and processing rivals. Enbridge-Spectra's natural gas processing market share substantially exceeds

the pipeline market share in Oklahoma and Texas — nine times the pipeline market share in Oklahoma and 5 times in Texas. Rival pipelines and gas producers would necessarily rely on Enbridge-Spectra's processing capacity to remove impurities and produce processed gas products.

Enbridge-Spectra could use their natural gas processing market power to foreclose rivals access to processing capacity or raise their costs. For example, Enbridge-Spectra could offer to pay other pipeline firms less for their gas; since Enbridge-Spectra controls a substantial portion of the necessary and unsubstitutable service, it could impose small price concessions on rival pipelines, driving up their costs.

IV. Proposed Merger Would Enhance Monopoly Power in Natural Gas Storage in Texas, Exacerbate Vertical Market Pipeline Power

The proposed merger would increase consolidation in the natural gas storage sector, especially in Texas, and create the ability and incentive for Enbridge-Spectra to exert market power to disadvantage natural gas suppliers, rival pipeline companies and raise prices. Natural gas storage firms with market power could discriminate on terms or prices to provide storage service to rivals or potential rivals or withhold or restrict services to drive up prices.¹⁸⁷ Firms with sufficient market power can extract monopoly rents for their storage services.¹⁸⁸

Natural gas firms store gas in pressurized facilities and underground repositories that allow them to match gas supplies with gas demand and hold gas until it is needed for transport.¹⁸⁹ Natural gas end users (utilities or industry) and shippers (marketers and pipelines) contract for gas storage to fulfill their needs and delivery agreements. These can be short-term “parking” agreements or long-term storage contracts that can last for more than three years.¹⁹⁰ Storage also allows natural gas users to buy gas when prices are low as a hedge against future price increases.¹⁹¹ Storage is especially important to balance seasonal demand, where gas produced

during the lower-demand summer months is stored for the higher-demand winter months.¹⁹²

Pipeline companies are key players in the natural gas storage industry and offer affiliated services at market hubs that rely on storage capacity. Pipeline companies also use their storage capacity to maintain pressure in their pipeline system.¹⁹³ Storage facilities can be supplemented by pipeline capacity, but not all pipelines are equally good alternatives for every storage customer.¹⁹⁴ The proposed merger would also give Enbridge-Spectra about 13.5 percent of U.S. pipeline capacity, meaning that its pipeline capacity supplements its storage capacity.¹⁹⁵ The combination of storage capacity in the pipeline network with storage facilities, makes it easier for a vertically integrated firm to withhold output to raise prices.¹⁹⁶

The product storage market includes services for inventory (storage), injection, withdrawal and associated financial services from storage hubs.¹⁹⁷ The primary services include wheeling (shifting gas from one pipeline to another interconnected one), parking (short-term storage for redelivery), loaning (advancing gas to be

Table 8. Enbridge-Spectra Merger in Texas Natural Gas Storage Market

	Company	Rank	Mkt. Share	HHI	CR-4	Rank	Mkt. Share	HHI	CR-4	Δ HHI	Δ CR-4
Total Storage	Enbridge	9	2.4%	1,900	71.0%	4	8.4%	1,929	72.0%	29	1.0%
	Spectra	7	6.0%								
Working Gas Storage	Enbridge	8	3.0%	1,918	69.3%	4	9.6%	1,958	70.3%	40	1.0%
	Spectra	5	6.6%								

¹⁸⁷ Fed. Reg. Vol. 71, No. 123. June 27, 2006 at 36,616.

¹⁸⁸ MRW & Associates. Prepared for California Energy Commission, Public Interest Energy Research Program. “Barriers to Expansion of Natural Gas Storage Facilities in California.” CEC-500-2008-036. April 2008 at 25.

¹⁸⁹ Leitzinger and Collette (2002) at 81.

¹⁹⁰ MRW & Associates (2008) at 21.

¹⁹¹ *Ibid.* at 14

¹⁹² Brown and Yücel (2008) at 2.

¹⁹³ Tobin, James. EIA. U.S. Underground Natural Gas Storage Developments: 1998-2005.” October 2006 at 2.

¹⁹⁴ Savitski (2016) at 187; Fed. Reg. Vol. 71, No. 123. June 27, 2006 at 36,613.

¹⁹⁵ Food & Water Watch analysis of EIA Capacity Database.

¹⁹⁶ Leitzinger and Martin Collette (2002) at 81.

¹⁹⁷ MRW & Associates (2008) at 29.

repaid later) and storing natural gas.¹⁹⁸ There is no substitute for storage capacity that the Department of Energy states is “crucial” in natural gas transportation.¹⁹⁹

The proposed merger would further consolidate a natural gas storage sector that has already become more concentrated. The number of firms controlling natural gas storage capacity has been declining. Over the past decade, the number of natural gas storage firms dropped by 39 percent from 123 in 2006 to 75 in 2015.²⁰⁰ And the biggest pipeline firms dominate natural gas storage, especially in “working gas,” the portion of stored gas that can be withdrawn without reducing pressure in the reservoir. In 2006, Interstate pipeline companies controlled 43 percent of the storage facilities and 55 percent of the working gas capacity.²⁰¹ By 2015, 25 interstate pipeline companies controlled 55 percent of the storage facilities with 65 percent of the working gas capacity.

There can be substantial barriers to entry for additional storage capacity, by existing firms or new entrants, making it unlikely that a new rival could enter and constrain Enbridge-Spectra from exercising market power. New facilities have substantial start-up costs and there are geologic constraints on siting new facilities.²⁰² It can take more than five years to construct a new natural gas storage facility.²⁰³ Moreover, existing firms and sites have incumbent advantages because it is easier and more cost effective to expand current facilities.²⁰⁴ These barriers to entry make it impossible for new storage capacity to promptly come online and offer market balancing alternatives to deter the abuse of market power.²⁰⁵

Spectra has substantial natural gas storage assets, controlling 300 billion cubic feet of natural gas storage capacity.²⁰⁶ Four Spectra natural gas storage facilities in the Marcellus shale region can store 88 billion cubic feet of natural gas and three storage sites in Texas and Louisiana hold another 77 billion cubic feet.²⁰⁷ In the Gulf Coast, Spectra controls 47 billion cubic feet of natural gas storage in Texas and Louisiana as well as another 30 billion cubic feet near the Henry Hub with connections to five major interstate pipelines (including Spectra’s Texas Eastern).²⁰⁸

Although the national market for natural gas storage is unconcentrated, the proposed merger would increase concentration in the moderately-concentrated Texas storage market (see Table 8). The customers for natural gas storage are geographically dispersed and face different local prices and different pipeline transportation rates to access the natural gas.²⁰⁹ The proposed merger would increase the concentration modestly but nonetheless increase it in a market with an HHI concentration index over 1,900. FERC considers natural gas storage markets with an HHI concentration index above 1,800 “suggests a higher level of concentration” that should increase scrutiny of market share and capacity to assess the ability to exert market power.²¹⁰

Moreover, the proposed merger’s increase in Enbridge-Spectra’s market power in natural gas storage ultimately has substantial impacts in the upstream (production) and downstream (pipeline) markets. Pipeline companies can exercise more market power when they have more excess storage capacity than their rivals, making it possible to withhold capacity to induce higher prices.²¹¹ The proposed Enbridge-Spectra merger would create market power throughout the natural gas supply chain: storage, hubs,

¹⁹⁸ Lyon (2000) at 74.

¹⁹⁹ Tobin (2006) at 1.

²⁰⁰ *Ibid.* at 8; Food & Water Watch analysis of EIA. Natural Gas Annual Respondent Query System (EIA-191). Data through 2015.

²⁰¹ Tobin (2006) at 10.

²⁰² MRW & Associates (2008) at 2

²⁰³ Tobin (2006) at 16.

²⁰⁴ MRW & Associates (2008) at 73.

²⁰⁵ *Ibid.* at 33.

²⁰⁶ Spectra Energy SEC 10-K filing (December 31, 2015) at 4.

²⁰⁷ *Ibid.* at 6.

²⁰⁸ *Ibid.* at 15.

²⁰⁹ Savitski (2016) at 187.

²¹⁰ Fed. Reg. Vol. 71, No. 123. June 27, 2006 at 36,616.

²¹¹ Doanne, McAfee and Williams (2004) at 782.

pipelines, distribution and power generation. The merged firm could use its market power to leverage both natural gas producers, rival pipeline firms and rival gas distribution firms.

V. Conclusion: Federal Trade Commission Should Block Enbridge-Spectra Merger

The proposed Enbridge-Spectra merger would significantly increase concentration in the natural gas industry that would undermine competition, disadvantage rivals and raise prices. The size, scope and complexity of the proposed merger warrants close examination. The FTC should extend the second request to fully investigate the potential adverse effects of the merger would have on the natural gas pipeline, processing and storage marketplace and the ultimate impact on consumers and the environment. The proposed merger raises significant questions and the Federal Trade Commission should give special attention to several factors that could further exacerbate the anticompetitive effects of the proposed acquisition:

Enbridge-Spectra would create a horizontal natural gas pipeline monopoly:

The FTC should closely examine the impact of the proposed merger on regional pipeline markets. Enbridge-Spectra would be a dominant player in the Gulf Coast-Louisiana, U.S.-Canada border and Michigan and increase consolidation in highly-concentrated markets that would allow the firm to exert unilateral and coordinated market power and raise prices. The deal would also substantially increase concentration in the moderately-concentrated Indiana and Louisiana markets.

Enbridge-Spectra deal would lower quality (safety) for communities in pipeline path:

The FTC should examine whether Enbridge can successfully absorb Spectra and improve pipeline safety in a larger, more diverse infrastructure network. Both Enbridge and Spectra have spotty pipeline safety records. Enbridge has stated that rapid expansion has led to pipeline safety problems and the proposed deal would add thousands of miles of pipeline to Enbridge's network.

Enbridge-Spectra vertical coordination in natural gas distribution in New York:

The proposed merger would enable Enbridge-Spectra to artificially raise prices on the natural gas it delivers to its distribution utilities in New York. This vertical integration problem is specifically delineated in the 1984 non-horizontal merger guidelines and needs close examination.

Enbridge-Spectra's entry into gas-fired electricity generation:

The FTC must examine the vertical control of natural gas in light of Enbridge's planned expansion into gas-fired electricity generation by 2019. By joining natural gas pipeline transportation and gas-fired generation, Enbridge-Spectra would be able to raise prices for other gas-fired power producers.

Enbridge-Spectra's vertical natural gas market power in processing:

The FTC must determine any and all marketing arrangements between rival pipelines and natural gas producers and Enbridge-Spectra natural gas processing assets in Oklahoma and Texas to ensure that the proposed merger does not create vertical market power that could undermine competition by foreclosing or disadvantaging its rivals.

Enbridge-Spectra's arrangements with natural gas storage customers exacerbate market power:

The FTC should examine the storage arrangements Enbridge-Spectra has with its rival pipeline companies as well as natural gas producers to determine the extent the merged company can leverage its storage market power to disadvantage rivals. This problem is especially concerning in the Texas storage market but because of Spectra's considerable storage assets nationwide, the merged company would likely be able to disadvantage rivals throughout the country.

Food & Water Watch believes that there are more than sufficient anticompetitive concerns for the FTC to block the early termination of the merger review and extend the investigation into the proposed Enbridge-Spectra merger. The FTC should not approve the largest oil and gas

infrastructure merger in years given the substantial and likely erosion of competition in natural gas pipelines, processing and storage that would disadvantage rivals and, ultimately, consumers. The FTC should enjoin this proposed acquisition.