STATEMENT G

MARKET COMPETITIVENESS MEASURES FOR SEAWAY PIPELINE'S DESTINATION AND ORIGIN MARKETS

TABLE OF CONTENTS
FOR STATEMENT G

TABLE OF CONTENTS
FOR STATEMENT G
(Continued)

Section **Page**

STATEMENT G

MARKET COMPETIVENESS MEASURES FOR SEAWAY PIPELINE'S DESTINATION AND ORIGIN MARKETS

I. Discussion of the Market Competiveness Statistics Used

The market competitiveness statistics that have been calculated include market shares for Seaway Pipeline and its competitors and the Herfindahl-Hirschman Indexes of market concentration (the HHIs) for the markets served by Seaway Pipeline. For a pipeline requesting permission to charge market-based rates for crude oil movements, its market share provides an indication of whether it could unilaterally exercise market power. The higher the pipeline's market share, the more likely it is that it could profitably charge rates above competitive levels for a sustained period. For example, a pipeline with a large market share might coerce or intimidate its smaller competitors into not undercutting its high price. However, for such a scenario to be plausible, the pipeline company must be substantially larger (in terms of revenues or market value) than its smaller competitors. Otherwise, it is not realistic to assume that the pipeline could coerce or intimidate its competitors. The Commission has previously held that such unilateral action requires a very high market share on the order of 70%.[1]

The HHI equals the sum of the squared market shares of all competitors in the market. As a consequence of how the HHI is defined, this statistic takes into account both the number and relative size of the competitors in the market. The HHI statistic

[1] *See Williams Pipe Line Co.*, 68 FERC ¶ 61,136 at 61,670-72 (1994).

can take values from just above zero (in a market with a very large number of small participants such as a market served by 1,000 essentially identical small suppliers) to 10,000 for a market served by a single monopolist supplier with a 100% market share -- 100 squared equals 10,000. The higher the HHI, the more likely that two or more of the market participants will cooperate to keep prices profitably above competitive levels (*i.e.*, engage in cooperative behavior).

The fact that the HHI statistic takes into account both the number and relative size of competitors is illustrated by the following hypothetical example. First, suppose that a hypothetical market is served by five suppliers with equal (20%) market shares. The HHI for this hypothetical market would be 2,000 (20 squared equals 400, which, times 5, equals 2,000). Second, suppose that this hypothetical market were served by five suppliers with unequal market shares: two with 40% market shares; one with a 10% market share; and two with 5% market shares. In this case, the HHI would be 3,350 (40 squared equals 1,600 which, times 2, equals 3,200 while 10 squared equals 100 and 5 squared equals 25 which, times 2, equals 50. The sum of those components -- 3,200 plus 100 plus 50 -- equals 3,350). Therefore, even though both hypothetical markets include five competitors, the HHI statistic suggests that cooperative behavior is more likely in the second hypothetical market where two of the five suppliers controlled 80% of the market (producing an HHI of 3,350) than in a market where all five suppliers had equal shares (producing an HHI of 2,000).

In addition to the market share and HHI statistics, two statistics have been calculated to measure the amount of excess capacity (or excess supply capability) in

the markets served by Seaway Pipeline. The first such statistic, the excess capacity ratio, measures the total capacity available in a market relative to the total usage of (demand for) capacity in a market served by Seaway Pipeline. The second such measure is the ratio of excess capacity held by Seaway Pipeline's competitors to the volumes transported by Seaway Pipeline.

II. Cooperative Behavior by Oil Pipelines is Unlikely to be Successful Even with High Concentration

Successful cooperative behavior is not easy to accomplish since cooperative behavior, in lieu of competition, is illegal. Therefore, cooperative behavior must be accomplished secretly. For such cooperative behavior to be successful, the pricing behavior, marketing behavior, and relative market shares of the individual cooperating participants must be knowable by the other participants. Otherwise, any one of the cooperating participants may increase its profits by cutting prices slightly and aggressively seeking an increase in market share at the expense of the other participants.

The characteristics of the oil pipeline industry also serve to make successful cooperative behavior particularly unlikely. Oil pipelines have high fixed costs which create a very strong incentive for competitors to cut prices, gain market share, and increase profits. Further, the terms of exchanges are confidential which helps to foster aggressive competition among rivals.[2] The service offered by oil pipelines is largely homogeneous which makes shippers indifferent as to the supplier and highly cost

[2] Exchanges are only one of several such types of transactions. The others are swaps, buy-sells, direct purchases, and direct sales. The term exchanges is intended to encompass all of these types of transactions.

conscious. Also, the pipelines, refineries, and waterborne carriers supplying a market all have different cost structures, making it difficult for competitors to anticipate one another's costs and to match prices accordingly. Large buyers, such as the major oil companies, who are shippers on oil pipelines, decrease the likelihood that market power can be exercised by a pipeline due to these buyers' bargaining power and industry knowledge. Since these major oil company shippers also operate their own pipelines, their oil pipeline industry knowledge is strong. All these factors serve to make successful cooperative behavior in the oil pipeline industry extremely unlikely.[3]

That attempts to engage in cooperative behavior generally are very unstable in the oil industry is evidenced, for example, by the collapse of OPEC's previous attempts to cooperate and to keep oil prices above competitive levels.[4] Within the United States, where such cooperative behavior is illegal, cooperative efforts have even less likelihood of success because, unlike OPEC, potential participants in cooperative behavior in the United States cannot legally agree to set prices and accept specified market shares or to restrict output with the intent of increasing prices.

[3] For a more detailed discussion of these factors, *see* W.G. Shepherd, *The Economics of Industrial Organization*, (3rd ed. 1990), p. 337 and p. 345, and W.G. Shepherd, *Public Policies Toward Business*, (8th Ed, 1991), pp. 239-240.

[4] The 2008 collapse of crude oil prices and the current drop in crude oil prices are further evidence of the ultimate futility of such efforts by OPEC.

III. Interpreting the Capacity-Based and Delivery-Based Market Share and HHI Statistics

A. The Availability of Receipt and Delivery Data

Receipt data in an origin market and delivery data in a destination market are typically available only for the applicant pipeline and for waterborne movements from the Army Corps of Engineers.[5] For the other pipelines and competitors in the origin and destination markets, there are no available actual volume data. The only oil pipeline market-based rate matter where such receipt and delivery data were available was *Buckeye* where Staff gathered such data via a survey.[6] All subsequent attempts by Staff and applicant oil pipelines to collect such data have been unsuccessful.

The Commission has recognized that only a limited amount of actual receipt and delivery data are available. As a result, the Commission, beginning with *Williams*, has given primary weight to the capacity-based market shares and HHIs in evaluating the competitiveness of origin and destination markets and secondary weight to the receipt-based and delivery-based market shares.[7] One reason for giving more weight to the capacity-based competitiveness statistics for oil pipelines, as discussed below, is that these capacity-based statistics are more indicative of whether the applicant pipeline could profitably exercise market power. Another reason for giving more weight to the capacity-based competitiveness statistics is the lack of data for the receipts or deliveries

---

[5] Additionally, crude oil import data showing the quantity and average characteristics of crude oil shipments into the U.S. are available for each U.S. refinery from the EIA.

[6] *See Buckeye Pipe Line Co.*, 53 FERC ¶ 61,473 (1990), *order on reh'g*, 55 FERC ¶ 61,084 (1991).

[7] *See Williams Pipe Line Co.*, 68 FERC ¶ 61,136 at 61,663-65 (1994) (Opinion No. 391), *order on reh'g*, 71 FERC ¶ 61,291 (1995).

by any of the market participants except for the applicant pipeline and for waterborne movements. Conversely, capacity data are available for all the market participants.

An oil pipeline's receipt-based or delivery-based market share must be approximated. The applicant pipeline's receipt-based market share in an origin market is approximated by its receipts expressed as the percentage of the estimated size of the origin market instead of as a percentage of the receipts of all the market participants. Similarly, the applicant pipeline's delivery-based market share in a destination market is approximated by its deliveries expressed as a percentage of the estimated size of the destination market instead of as a percentage of the deliveries of all the market participants. Total receipts or deliveries of all market participants can differ substantially from the estimated market size. For example, in the destination market for the applicant crude oil pipeline, calculating the applicant pipeline's delivery-based market share on the basis of a market size measured by the estimated use of crude oil by the refineries located in the destination market could substantially overstate the applicant pipeline's actual delivery-based market share. This substantial overstatement of the applicant pipeline's actual market share would occur if a substantial amount of the crude oil delivered to this destination market was subsequently shipped to refineries located outside the destination market (*i.e.*, some of the deliveries were intended for use outside the destination market).

B. The Capacity and Delivery Data Available in This Matter

Statement A develops the definition of the geographic markets for Seaway Pipeline and also identifies the cost-effective competitors to Seaway Pipeline.

Statement C provides a detailed description of Seaway Pipeline including data on its capacity. The market share and HHI statistics for Seaway Pipeline's destination and origin markets are calculated using capacity data from the EIA, for U.S. refineries, and the *Oil and Gas Journal*, for Canadian refineries.

IV. Threshold Criteria for the Market Competitiveness Measures

A. Evaluating Alternative HHI Thresholds

The U.S. Department of Justice ("DOJ"), in its Oil Pipeline Deregulation Study, recommended a 2,500 HHI threshold as a basis for deciding whether or not to completely deregulate an oil pipeline.[8] This recommended HHI threshold of 2,500 is met by a market served by four equally sized competitors. If the 2,500 threshold is sufficient to permit deregulation, it is more than sufficient to permit the charging of market-based rates. In the current context, Seaway Pipeline is requesting the authority to charge market-based rates for crude oil movements from its origin in Cushing, Oklahoma, to its Gulf Coast delivery points. The rates charged for these movements would continue to be subject to regulatory oversight by the Commission, and Seaway Pipeline would still be subject to the Commission's reporting requirements regarding these movements. Such regulatory oversight permits the Commission to obtain whatever information it needs to be assured that Seaway Pipeline is not exercising market power and, if appropriate, to rescind permission to charge market-based rates.

[8] *Oil Pipeline Deregulation*, Report of U.S. Department of Justice, May 1986, p. 30 (hereinafter *DOJ Deregulation Study*). The statistical analysis results presented in the *DOJ Deregulation Study* are dated, but the economic analysis and reasoning from this study remain relevant. For example, the D.C. Circuit cited the *DOJ Deregulation Study* in its recent decision in the Mobil Pegasus matter. *See Mobil Pipeline Co. v. FERC*, 676 F. 3d 1098 (D.C. Cir. 2012) at 1103-04.

Shippers have generally supported an 1,800 HHI threshold in market-based rate proceedings. This threshold would be met if a market was served by between five and six equally sized competitors (five equally sized competitors implies an HHI of 2,000 and six equally sized competitors implies an HHI of 1,667). The advocates of the 1,800 HHI threshold point to the use of this threshold in the DOJ/Federal Trade Commission's (FTC's) 1992 Merger Guidelines.[9] The thresholds in the 1992 Merger Guidelines are used to establish a presumption regarding whether it is likely to be substantially harmful to the public to permit the merger of two firms in the same line of business. The tradeoffs evaluated by the DOJ and the FTC in such mergers are the efficiency and cost saving improvements that may be accomplished versus the increased likelihood of cooperative behavior leading to higher prices and margins. The 1,800 threshold is far from a rigid constraint in mergers. Mergers are often permitted when HHIs are in the 1,800 to 2,500 range and even when the resulting HHI (the post-merger HHI) is above 2,500.

Granting authority to charge market-based rates does not have the permanent structural effects that would ensue following a merger. Once two firms are allowed to merge, undoing the merger is very difficult and may not be feasible. Conversely, an oil pipeline that has been granted permission to charge market-based rates remains regulated by the FERC who, if presented with evidence in a complaint proceeding of a substantial lessening of competition faced by the oil pipeline, could rescind the oil pipeline's market-based rate authority. The question here is whether continued

[9] See Department of Justice and Federal Trade Commission Horizontal Merger Guidelines, April 2, 1992.

regulation of prices will produce a better result than allowing prices to be set by market forces. Neither the DOJ nor the FTC recommends that markets with HHIs above 1,800 or even above 2,500 should be subjected to price regulation instead of allowing market forces to set those prices. The losses of efficiency and consumer welfare can be very high when prices are not set by market forces. Therefore, the cost of the continued setting of prices based on regulatory rules instead of market forces can be very costly.

As a result, the shippers and the public are best served if the market is allowed to set prices. Given that the outcome under market-based rates would be monitored by the Commission, the 2,500 threshold should be adopted. A market equivalent to one served by at least four equally sized competitors has sufficient competition, particularly given that it would be subject to ongoing regulatory scrutiny, for the Commission to allow market-based rates and to be confident that rates would be kept at competitive levels.

While the Commission has not adopted an HHI threshold, the Commission appears to approve market-based rates for markets where the HHI is 1,800 or less with limited, if any, consideration of other factors. In fact, in oil pipeline market-based rate matters, the Commission has always found an origin or destination market with an HHI of 1,800 or less to be sufficiently competitive for the applicant pipeline to be allowed to charge market-based rates for movements from the origin market or for movements to the destination market.

For a market with an HHI above 1,800 but no higher than 2,500, the Commission evaluates other factors including the applicant pipeline's market share (capacity-based

and delivery/receipt-based), the excess capacity ratio, and the excess capacity held by others ratio. As a general rule, unless one of the above non-HHI competitiveness statistics indicates that there are competitive issues, the Commission is likely to grant the applicant pipeline permission to charge market-based rates where the HHI is no higher than 2,500.

Even where the HHI is above 2,500, the Commission may find the market to be competitive where other factors are present such as substantial waterborne movements into or out of the market.[10] Substantial waterborne movements are by themselves a strong indication that a given destination or origin market is sufficiently competitive to allow market-based rates, since barges and tankers are highly competitive with pipelines for the transportation of crude oil and can enter the market quickly and relatively inexpensively.

B. Market Share Thresholds

If the capacity-based HHI statistic is below 2,500, then the market is typically found to be sufficiently competitive. In such a circumstance, there should be no need to consider the applicant pipeline's or any other competitor's market share because no participant could exercise market power. Conversely, if the HHI is above 2,500 or if other specific factors indicate that the exercise of market power might be possible, then the market share of the pipeline applicant (as well as other factors) should be examined. If the HHI is above 2,500 but the applicant pipeline has a small market share (*i.e.*, the

[10] In *Williams*, the Quincy market had a capacity-based HHI of 3,100 and a delivery-based share of 74%. Substantial barge deliveries of 28% of total deliveries led the Commission to conclude that Williams did not have significant market power. *See Williams Pipe Line Co.,* 71 FERC ¶ 61,291, at 62,136-38 (1995).

high HHI is due to the high market share of one of the applicant pipeline's competitors), then the applicant pipeline should be allowed to charge market-based rates.[11] Clearly, if the applicant pipeline's market share is 10% or less when the HHI is above 2,500, this pipeline is not in a position to exercise market power no matter how high the HHI. Also, it certainly is possible for the applicant pipeline's market share to be much higher and for it not to be in a position to exercise market power in a high HHI market. However, such a market situation would have to be fully investigated. The largest suppliers are the market participants most likely to be able to exercise market power in a high HHI market.

C. Excess Capacity Statistics: Definitions and Thresholds

1. Definitions

The two excess capacity measures for origin and destination markets are the excess capacity ratio and the excess capacity held by others ratio.

The excess capacity ratio for a crude oil pipeline's origin market equals the total capacity to absorb the crude oil produced within the origin market (*i.e.*, the capacity of outbound pipelines, local refineries, and rail/waterborne transportation) divided by crude oil production in the origin market.[12] The excess capacity ratio for a crude oil pipeline's

[11] In *Buckeye*, the Commission allowed Buckeye to charge market-based rates in several markets despite high HHIs because Buckeye's market share was low (*e.g.*, Indianapolis where Buckeye's market share was less than 2%). *See* 53 FERC ¶ 61,473 at 62,669-70.

[12] Alternatively, one might define the denominator of the ratio as the total supply of crude oil in the origin market which would consist of local crude oil production plus deliveries of crude oil into the origin market from remote crude oil production areas.

destination market equals the total crude oil supply capacity into that destination market divided by the use of crude oil by the refineries located within the destination market.

In an applicant crude oil pipeline's origin market, the excess capacity held by others equals the total capacity to absorb crude oil in that market minus the quantity of crude oil to be absorbed in the origin market minus the excess capacity held by the applicant pipeline (*i.e.*, its unutilized capacity). The crude oil to be absorbed in the origin market can be defined in two ways: (1) the crude oil produced within the origin market; or (2) the crude oil produced within the origin market plus deliveries of crude oil to the origin market from remote production areas. The excess capacity held by others ratio in an applicant pipeline's origin market equals the excess capacity held by others as defined above divided by the applicant pipeline's movements of crude oil out of the origin market.

In an applicant crude oil pipeline's destination market, the excess capacity held by others equals the total capacity to supply crude oil to that market minus the usage of crude oil by the refineries in that market minus the excess capacity held by the applicant pipeline (*i.e.*, its unutilized capacity). The excess capacity held by others ratio in a crude oil pipeline's destination market equals the excess capacity held by others as defined above divided by the applicant pipeline's deliveries of crude oil to the destination market.

2. Thresholds

An excess capacity ratio of 1.2 or higher indicates substantial excess capacity (*i.e.*, an excess capacity ratio of 1.2 indicates that the excess capacity available to

supply a market equals 20% of total consumption in the market).[13] The presence of substantial excess capacity in an origin or destination market implies that it is highly unlikely that the applicant pipeline could profitably sustain a tariff rate above competitive levels.[14]

For the excess capacity held by others ratio, a value of 1.0 or higher indicates that there is enough capacity held by others to allow shippers on the applicant pipeline to divert all their movements on the applicant pipeline out of the origin market or into the destination market to these alternatives. However, all that would have to be diverted would be enough to render unprofitable an attempt by the applicant pipeline to raise the rates on its pipeline above competitive levels. Therefore, an excess capacity held by others ratio that was substantially less than 1.0 (*e.g.*, 0.2) should be sufficient to ensure that applicant pipeline could not profitably raise the rate on its pipeline above competitive levels. However, if the excess capacity ratio held by others ratio is 1.0 or higher, this implies that there is sufficient unused capacity held by others to take away all of the applicant pipeline's movements out of an origin market or into a destination market.

V. Competitiveness Analyses for the Cushing Origin Market, the Western Canada Production Area, and the Rocky Mountain Production Area

[13] In many cases, an excess capacity ratio of 1.1 would be sufficient. For example, in a large market, an excess capacity ratio of 1.1 would imply a large absolute amount of excess capacity that was available for use by the shippers on the applicant pipeline if the applicant pipeline were to attempt to raise its rates above competitive levels.

[14] *See* Enterprise Products Partners, L.P. and Enbridge Inc., 139 FERC ¶ 61,099, at P 10 n.5 (2012).

Seaway Pipeline is requesting market-based ratemaking authority for a single origin market surrounding Seaway Pipeline's receipt point in Cushing, Oklahoma. However, because the crude oil shipped on Seaway Pipeline originates from both local and remote crude oil production areas, the competitiveness analysis extends beyond the Cushing origin market. Thus, the origin market related HHI and other competitiveness analyses are performed for the Cushing origin market and also for the Western Canada production area and the Rocky Mountain production area because Seaway Pipeline transports crude oil that is produced in all three areas.

A. Origin Market Capacity-Based HHI Competitiveness Analyses

1. Definitions and Interpretation of Effective Capacity and Adjusted Capacity for an Origin Market

The capacity-based HHIs are calculated using two measures of capacity: (1) effective capacity; and (2) adjusted capacity. The methodologies used to define both of these capacity measures recognize that capacity in excess of what is needed to serve the market can have no effect on a market participant's ability to exercise market power. For an applicant crude oil pipeline, the effective capacity measure methodology recognizes the fact that the supply of crude oil within the applicant pipeline's origin market, or within one of the remote production areas, may constrain the amount of crude oil that the applicant pipeline or any one of its competitors can transport or consume. Therefore, effective capacity is defined as the lesser of a pipeline's (or refiner's) capacity or the available quantity of crude oil within the origin market (or remote production area). Within an applicant crude oil pipeline's destination market, its

effective capacity is defined as the lesser of a pipeline's capacity and the total crude oil distillation capacity of all the refineries in the origin market.

Under the adjusted capacity measure methodology, which was employed in the DOJ *Deregulation Study*, it is assumed that each competitor has an equal probability of "consuming" each unit of crude oil regardless of the competitor's size. And, if one or more competitors does not have the capacity to consume an equal share, those competitors would be assigned capacity values equal to their unadjusted capacity values. The remaining crude oil supply is then divided equally among the larger competitors provided each has sufficient capacity to consume an equal share. If not, the competitors with insufficient capacity to consume an equal share are assigned adjusted capacity values equal to their unadjusted capacity values. The remaining supply is then equally divided among the still larger competitors if they have capacity to consume equal supply of the remainder. This iterative process continues until all the remaining competitors can consume an equal share of the remaining supply.

From among the various methodologies that might be used to define capacity measures that address the excess capacity issue, the adjusted capacity methodology produces the lowest possible HHI value and the effective capacity methodology produces the highest possible HHI value. Not surprisingly, protestants in market-based matters have focused solely on the effective capacity-based HHIs. Given that the effective capacity-based HHIs are the highest possible HHIs that address the excess capacity issue and the adjusted capacity-based HHIs are the lowest possible HHIs that address the excess capacity issue, it is reasonable to evaluate the competitiveness of

an oil pipeline's origin (or destination) market on the basis of the mid-point (or average) of the two HHI values. Thus, three different HHI measures are calculated below: the effective capacity-based HHIs, the adjusted capacity HHIs, and the average HHIs (the average of the effective capacity- and adjusted capacity-based HHIs).

2. The Format of the Origin Market HHI Tables

In Tables G.1 through G.8 at the end of this statement, Part I on page 1 of each table presents the HHI results, and Part II (on the subsequent page(s) of each table) presents a description of the individual facilities included in the HHI analysis and also the location and capacities of these facilities. These facilities are described in Statement D and are confirmed to be good alternatives in terms of price in Statement A. The capacities of multiple facilities owned by the same entity are combined under the owner's name in Part I of the HHI tables.

The HHI analysis results are presented in Part I of Tables G.1 through G.8, and the organization of the information presented regarding these HHI analyses is the same in all these tables. Using Part I of Table G.1 as an example, Part I presents HHI calculations for the Cushing origin market. The first column of Table G.1, Part I lists the companies that own the competitive alternatives, and Column 2 presents the aggregate capacity of the competitive alternatives owned by each company. Column 3 shows effective capacity, and Columns 4 and 5 show capacity share and HHI contribution (the square of the capacity share) based on the effective capacities. Column 6 shows adjusted capacity, and Columns 7 and 8 show capacity share and HHI contribution based on the adjusted capacities. In the boxes at the bottom of Part I, the Cushing

origin market's HHI results (effective capacity-based HHI, adjusted capacity-based HHI, and average HHI) and the excess capacity ratio are shown. Also, the "size of the market" is shown at the bottom of Part I in the left-most box. In Tables G.1 and G.2, the size of the market is local crude oil production in the Cushing origin market. The difference between Tables G.1 and G.2 relate to the assignment of control of the capacity of rail loading facilities to companies. In Table G.1, the rail loading capacity is assigned to the connecting railroad (either BNSF or UP), and, in Table G.2, the rail loading capacity is assigned to the owners of the rail loading facilities (there are numerous owners). Table G.1 represents a more conservative view of the increased competitiveness provided by the rail loading facilities than does Table G.2 (*i.e.* there are fewer competitors in Table G.1 than in G.2). However, assigning the capacity of the rail loading facilities to the connected railroads is not necessarily more appropriate from an economic perspective.[15]

3. Cushing Origin Market Capacity-Based HHI Analysis Results

a. Market Size Defined As Crude Oil Production in the Cushing Origin Market

Tables G.1 and G.2 at the end of this statement present the HHI results for the Cushing origin market where the market size is measured by the crude oil production in the Cushing origin market. In these tables, the HHI calculations include Seaway Pipeline and its competitive alternatives. These competitive alternatives include other pipelines exiting the Cushing origin market, refineries within the Cushing origin market,

[15] See Appendix A for a more complete discussion of the economic basis for assigning rail loading or unloading facility capacity to the connected railroad versus the owners of the facilities.

and rail and barge loading facilities within the Cushing origin market. The results from Tables G.1 and G.2 are summarized in the table below.

In Table G.1, the rail loading facilities' capacities are assigned to the connecting railroad (which is either BNSF or UP). The effective capacity-based HHI shown in Table G.1, Part I for the Cushing origin market is 798, the adjusted capacity HHI is 550, and the average HHI is 674.[16] All of these HHIs are substantially below 1,800, which strongly indicates an absence of market power within the Cushing origin market. Seaway Pipeline's effective capacity-based market share is 8.7% which indicates that Seaway Pipeline does not have market power. The excess capacity ratio of 2.95 means that the Cushing origin market's excess capacity is 2.95 times as large as Seaway Pipeline's receipts. Because the excess capacity ratio is greater than 1.0, which implies that the market contains more than enough available capacity to absorb all of Seaway Pipeline's volume, it indicates an absence of market power. [17]

Table G.2 is the same as Table G.1 except that, in the Table G.2 analysis, the rail loading capacities are assigned to the facilities' owners. This change results in a reallocation of the rail loading capacities, but the total rail loading capacity does not change. In Table G.2, the effective capacity-based HHI is 778, the adjusted capacity-based HHI is 451, the average HHI is 614, Seaway Pipeline's effective capacity-based market share is 8.7%, and the excess capacity ratio is 2.95. All of these results, which

[16] The effective capacity HHI is the sum of the effective capacity HHI contributions, and the adjusted HHI is the sum of the adjusted HHI contributions. The average HHI is the average of the effective capacity HHI and the adjusted capacity HHI.

[17] The competitiveness statistics presented in Table G.1 do not meaningfully change if the projected 2016 capacities and crude oil production volumes are used instead of current (second half of 2014) values.

are summarized in the table below, indicate an absence of market power in the Cushing origin market.

Summary of Competitiveness Statistics for the Cushing Origin Market Presented in Tables G.1 - G.2 (Market Size Defined as Local Crude Oil Production)

	Table	
	G.1	G.2
Rail Loading Facility Capacity Assignment	By Connected Rail Carrier	By Rail Loading Facility Ownership
Effective Capacity-Based HHI	798	778
Adjusted Capacity-Based HHI	550	451
Average HHI	674	614
Seaway Effective Capacity-Based Market Share	8.7%	8.7%
Excess Capacity Ratio	2.95	2.95

b. Market Size Defined As Crude Oil Production in the Cushing Origin Market Plus Pipeline Deliveries of Crude Oil into the Cushing Origin Market

Tables G.3 and G.4 at the end of this statement are conceptually identical to Tables G.1 and G.2, respectively. The difference is that the market size in Tables G.1 and G.2 is defined as crude oil production in the Cushing origin market ("local crude oil production"), and, in Tables G.3 and G.4, the market size is defined as local crude oil production plus pipeline deliveries of crude oil into the Cushing origin market.

The results for this broader market size definition are summarized in the table below. In Tables G.3 and G.4, the HHI values are below 1,800 (*e.g.*, the average HHI in Table G.3 is 690), the excess capacity ratio is greater than 1.0 (*i.e.*, it is 1.61 in both tables), and Seaway Pipeline's capacity based market share is low (*i.e.*, its effective

capacity share is 8.7% in both tables). These results indicate an absence of market power.

Summary of Competitiveness Statistics for the Cushing Origin Market Presented in Tables G.3 - G.4 (Market Size Defined as Local Crude Oil Production Plus Pipeline Deliveries of Crude Oil)

	Table	
	G.3	G.4
Rail Loading Facility Capacity Assignment	By Connected Rail Carrier	By Rail Loading Facility Ownership
Effective Capacity-Based HHI	798	778
Adjusted Capacity-Based HHI	582	531
Average HHI	690	654
Seaway Effective Capacity-Based Market Share	8.7%	8.7%
Excess Capacity Ratio	1.61	1.61

4. Western Canada Production Area Capacity-Based HHI Results

Tables G.5 and G.6 at the end of this statement present capacity-based HHIs, Seaway Pipeline's effective capacity-based market share, and the excess capacity ratios for the Western Canada production area. In these tables, the HHI calculations include Seaway Pipeline and its competitive alternatives. The competitive alternatives to Seaway Pipeline include refineries located in: (1) Western Canada; (2) Ontario, Canada and Warren, Pennsylvania; (3) Eastern Canada; (4) the Rocky Mountain Area; (5) the Upper Midwest; (6) the U.S. East Coast; (7) the U.S. West Coast; and (8) the Cushing origin market. These competitive alternative refineries are documented to process Western Canada crude oil and are therefore good alternatives to Seaway

Pipeline. In addition to these refineries, the competitive alternatives to Seaway Pipeline include northbound crude oil pipelines from Cushing into Kansas and southbound crude oil pipelines from Cushing to the U.S. Gulf Coast. The competitive alternatives also include a barge loading facility and a rail loading facility in the vicinity of Cushing.

When all the U.S. refineries that use Western Canada crude oil are included as used alternatives and thereby good alternatives in terms of price, the effective capacity-based HHI for the Western Canada production area as shown in Table G.5, Part I is 467, the adjusted capacity-based HHI is 309, the average HHI is 388, and the effective capacity-based market share is 4.0%. These HHI and market share statistics document that this market is highly competitive and that Seaway Pipeline could not profitably exercise market power (*i.e.*, Seaway has no market power). Table G.5, Part I also shows that the excess capacity ratio is 3.29 which, because it is significantly above 1.0, further indicates an absence of market power.

Table G.6, Part I presents an alternative capacity-based competitiveness analysis for the Western Canada production area. Table G.6 is the same as Table G.5 except that the Table G.6 analysis only includes the U.S. refineries where Western Canada crude oil accounts for 40% or more of their total crude oil inputs.[18] This change results in modestly higher HHI values in Table G.6 than in Table G.5. Table G.6, Part I shows an effective capacity-based HHI of 598, an adjusted capacity-based HHI of 390, and an average HHI of 494. These HHIs are substantially below 1,800 which strongly

[18] That is, the refineries included in the Table G.6 analysis are the refineries that process at least 40% Western Canada crude oil and that are outside of the Gulf Coast destination market and outside of Kansas.

indicates an absence of market power in the Western Canada production area. Seaway Pipeline's effective capacity-based market share is 6.9%. The excess capacity ratio reported in Table G.6, Part I is 1.90 which, because it is significantly above 1.0, further indicates the absence of market power. The competitiveness statistics presented in Tables G.5 and G.6, which document that this market is highly competitive and that Seaway Pipeline has no market power, are summarized in the following table.

Summary of Competitiveness Statistics for the Western Canada Production Area Presented in Tables G.5 and G.6

	Table	
	G.5	G.6
Amount of Western Canada Crude Oil Processed by Included U.S. Refineries	Use Western Canada Crude Oil	Use of Western Canada Crude Oil is 40% or More of Crude Oil Inputs
Effective Capacity-Based HHI	467	598
Adjusted Capacity-Based HHI	309	390
Average HHI	388	494
Seaway Effective Capacity-Based Market Share	4.0%	6.9%
Excess Capacity Ratio	3.29	1.90

5. Rocky Mountain Production Area Capacity-Based HHI Analysis Results

Tables G.7 and G.8 at the end of this statement present the capacity-based HHIs, Seaway Pipeline's effective capacity-based market share, and the excess capacity ratio for the Rocky Mountain production area. In these tables, the HHI calculations include Seaway Pipeline and its competitive alternatives. The competitive alternatives to Seaway Pipeline include refineries located in: (1) Rocky Mountain

production area refineries that process Rocky Mountain crude oil;[19] (2) Upper Midwest refineries where Rocky Mountain production area crude oil is a competitive alternative;[20] (3) Eastern Canada; (4) the U.S. East Coast; (5) the U.S. West Coast; and (6) the Cushing origin market. These competitive alternative refineries are documented to process Rocky Mountain production area crude oil and are therefore good alternatives to Seaway Pipeline. In addition to these refineries, the competitive alternatives to Seaway Pipeline include northbound crude oil pipelines from Cushing into Kansas and southbound crude oil pipelines from Cushing to the U.S. Gulf Coast. The competitive alternatives also include a barge loading facility and a rail loading facility in the vicinity of Cushing.

When U.S. Upper Midwest refineries that use Western Canada production area crude oil are included in the Rocky Mountain production area analysis, as shown in Table G.7, Part I at the end of this statement, the effective capacity-based HHI is 584, the adjusted capacity-based HHI is 340, and the average HHI of 462. All of these HHIs are substantially below 1,800 which strongly indicates an absence of market power for the crude oil produced in the Rocky Mountain production area. Seaway Pipeline's effective capacity-based market share is 6.5%. Table G.7, Part I also shows an excess capacity ratio of 4.68 which, because it is well above 1.0, further indicates an absence of market power.

---

[19] There are also two refineries in the Rocky Mountain Area that solely process Western Canada crude oil; these refineries are excluded from the analyses presented in Tables G.7 and G.8.

[20] More specifically, the Table G.7 analysis includes Upper Midwest refineries where Rocky Mountain production area crude oil is a competitive alternative to Western Canada production area crude oil at refineries known to use Western Canada crude. Thus, only refineries that process Western Canada crude oil are eligible to be included under this criterion.

Table G.8 at the end of this statement presents an alternative capacity-based competitiveness analysis for the Rocky Mountain production area. Table G.8 is the same as Table G.7 except that the criterion for including Upper Midwest refineries is more restrictive for Table G.8 than for Table G.7. Specifically, the Table G.8 analysis includes the Upper Midwest refineries at which Rocky Mountain production area crude oil is a competitive alternative (as was the case in Table G.7) and adds the restriction that the Western Canada production area crude oil used by those refineries accounts for 40% of their total crude oil inputs. After this change, the HHI values in Table G.8 are nearly the same as in Table G.7. Table G.8, Part I shows an effective capacity-based HHI of 575, an adjusted capacity-based HHI of 340, an average HHI of 457, a Seaway Pipeline effective capacity-based market share of 7.1%, and an excess capacity ratio of 4.29 for the Rocky Mountain production area. As before, all of these competitiveness statistics indicate the absence of market power. The competitiveness statistics shown in Tables G.7 and G.8 are summarized in the table below.

Summary of Competitiveness Statistics for the Rocky Mountain Production Area Presented in Tables G.7 and G.8

	Table	
	G.7	G.8
Amount of Western Canada Crude Oil Processed by Included U.S. Upper Midwest Refineries	Use Western Canada Crude Oil	Use of Western Canada Crude Oil is 40% or More of Crude Oil Inputs
Effective Capacity-Based HHI	584	575
Adjusted Capacity-Based HHI	340	340
Average HHI	462	457
Seaway Effective Capacity-Based Market Share	6.5%	7.1%
Excess Capacity Ratio	4.68	4.29

B. Origin Market Excess Capacity Held By Others Competitiveness Analysis

The calculation of the excess capacity held by others ratio for the Cushing origin market, the Western Canada production area, and the Rocky Mountain production area is based on the estimated volumes shipped on Seaway Pipeline after Seaway Loop Line began operations.[21] Table G.10 at the end of this statement presents the results of the excess capacity held by others analyses for the Cushing origin market, the Western Canada production area, and the Rocky Mountain production area. An excess capacity held by others ratio of 1.0 or higher indicates that the competitors to Seaway Pipeline have more than sufficient excess capacity to absorb the entire volume of crude oil that is transported by Seaway Pipeline. The lowest value among all the excess capacity held by others ratios shown in Table G.10 is 5.4 which means that Seaway Pipeline's

[21] Seaway Pipeline shipment volumes, including Seaway Loop Line volumes, are presented in Table G.9 at the end of this statement.

competitors have more than five times enough available capacity to absorb all the crude oil volumes shipped on Seaway Pipeline. These excess capacity held by others ratios provide strong support for the competitiveness of the Cushing origin market, the Western Canada production area, and the Rocky Mountain production area.

C. Seaway Pipeline's Origin Market Receipt Share

Table G.11 at the end of this statement shows Seaway Pipeline's second half of 2014 crude oil receipts expressed as a percentage of the market size for alternative market size definitions. As shown in the summary table below, Seaway's second half of 2014 receipts amounted to 19.5% of local crude oil production in the Cushing origin market and 10.6% of this local crude oil production plus pipeline deliveries of crude oil into the Cushing origin market. For the Western Canada and Rocky Mountain production areas, Seaway's second half of 2014 receipts amount to 9.9% and 23.1%, respectively, of the total crude oil production in these two areas. However, Seaway Pipeline also receives crude oil produced in the Cushing origin market as well as offering an outlet for the crude oil produced in these two remote areas. Therefore, contrasting Seaway Pipeline's receipts with the second half of 2014 production in the Cushing origin market plus the crude oil produced in these two remote areas provides a better indication of Seaway Pipeline's market presence. Seaway Pipeline's receipts amount to 6.6% and 10.6%, respectively, of Cushing origin market crude oil production plus the crude oil production in Western Canada or the Rocky Mountain production area. These results strongly confirm that Seaway Pipeline does not have market power in any of the three production areas.

Summary of Seaway Pipeline's Receipt Shares for the Cushing Origin Market, the Western Canada Production Area, and the Rocky Mountain Production Area

Presented in Table G.11

	Area		
Market Size Definition	Cushing Origin Market	Western Canada Production Area	Rocky Mountain Production Area
Local Area Crude Oil Production	19.5%	9.9%	23.1%
Local Area Crude Oil Production Plus Pipeline Crude Oil Deliveries	10.6%	---	---
Local Area Plus Cushing Origin Market Crude Oil Production	---	6.6%	10.6%

D. Conclusions Regarding the Competitiveness Analyses for the Cushing Origin Market, the Western Canada Production Area, and the Rocky Mountain Production Area

The results of the competitiveness analyses discussed above clearly document that the Cushing origin market, the Western Canada production area, and the Rocky Mountain production area are all highly competitive. As a consequence, the Commission could safely grant permission for Seaway Pipeline to charge market-based rates at Seaway Pipeline's origin point in Cushing, OK. For the Cushing origin market, the Western Canada production area, and the Rocky Mountain production area, the calculated HHIs are all much less than 800, Seaway Pipeline's capacity shares are all less than 9%, the excess capacities are all substantially greater than Seaway Pipeline's capacity, and the excess capacities held by others are all substantially greater than Seaway Pipeline's crude oil receipts. All these factors document the highly competitive nature of Seaway Pipeline's origin market and demonstrate that Seaway Pipeline could not profitably charge rates from its origin market above competitive levels.

VI. Competitiveness Analyses for the Destination Market

The Commission has previously found Seaway Pipeline's destination market (which is the same as the destination market in the Mobil Pegasus case) to be a competitive destination market for the delivery of crude oil.[22] As explained below, all of the statistical analyses of this destination market continue to show that Seaway Pipeline's destination market is highly competitive, and that Seaway Pipeline thus does not have market power.

Two alternative geographic area definitions of Seaway Pipeline's destination market on the Gulf Coast were evaluated in Statement A: (1) the Gulf Coast Area and (2) the Houston to Lake Charles Area. For both alternative definitions of Seaway Pipeline's destination market on the Gulf Coast, local crude oil production plus waterborne crude oil deliveries exceed the total quantity of crude oil processed by the refineries located in the origin market. This fact alone ensures that Seaway Pipeline's destination market on the Gulf Coast is highly competitive for both alternative definitions of this destination market. The number of inbound crude oil pipelines that compete with Seaway Pipeline varies across the alternative definitions of the destination market from 13 to 20 (*i.e.*, there are 14 to 21 pipeline competitors including Seaway Pipeline). However, given the large combined quantity of local crude oil production in this destination market and the large quantity of waterborne deliveries to this destination market, this destination market would be highly competitive even if there were no competing pipelines.

[22] *See Mobil Pipe Line Company,* 121 FERC ¶ 61,268, at P 16 (2007); *see also Mobil Pipeline Co. v. FERC*, 676 F. 3d 1098 (D.C. Cir. 2012) (noting that the Commission found the same destination market at issue here to be "highly competitive").

Some of the crude oil that is produced within or delivered into Seaway Pipeline's destination market on the Gulf Coast is subsequently transported out of this destination market for processing by refineries located elsewhere. A separate alternative set of capacity-based analyses has been performed for the two alternative definitions of Seaway Pipeline's destination market on the Gulf Coast based on net local crude oil production and waterborne deliveries. Net local crude oil production deliveries are calculated by removing the quantity of crude oil that is transported out of the destination market on the Gulf Coast from the sum of local crude oil production and waterborne deliveries ("gross local crude oil production and waterborne deliveries"). More specifically, net crude oil production and waterborne deliveries equals gross local crude oil production and waterborne deliveries minus the estimated quantity of crude oil that is transported out of the destination market (*i.e.*, outbound pipeline movements and waterborne shipments out of the destination market). However, net crude oil production and waterborne deliveries are still almost as large as or larger than the quantity of crude oil processed in the destination market. Over the two alternative definitions of the destination market, the quantity of net crude oil production and waterborne receipts is within 4% of the quantity of crude oil processed by the refineries located in the destination market. As a consequence, the destination market is still highly competitive if local crude oil production and waterborne receipts are measured on a net basis instead of on a gross basis.

A. Destination Market Capacity-Based HHI Competitiveness Analyses

1. The Format of the Destination Market HHI Tables

Tables G.12 through G.15 at the end of this statement present the HHI results of the destination market competitiveness analysis. As described below, these tables set forth the HHIs, capacity-based market shares, and excess capacity ratios for Seaway Pipeline's destination market. These calculations are performed using unadjusted capacity data because the very large waterborne deliveries into the destination market make it impossible to calculate meaningful effective or adjusted capacity measures.[23]

In Tables G.12 through G.15, Part I of each table presents the HHI results, and Part II presents a description of the individual facilities included in the HHI analysis and also the location and capacities of these facilities. These facilities are described in Statement D and are confirmed to be good alternatives in terms of price in Statement A. The capacities of multiple facilities owned by the same entity are combined under the owner's name in Part I of Tables G.12 through G.15.

The organization of the HHI analysis is the same in each of Tables G.12 through G.15. Using Table G.12 as an example, Part I presents HHI calculations for the Gulf Coast Area destination market. The first column of Table G.12, Part I lists the companies that own the competitive alternatives, and Column 2 presents the aggregate (unadjusted) capacity of the competitive alternatives owned by each company. Column

[23] The effective and adjusted capacity measures cannot be calculated for this market because the effective capacity and adjusted capacity measures use refinery crude oil input less local crude oil production less waterborne crude oil deliveries to define the size of the market to be served by pipelines. In this market, refinery crude oil input is smaller than the sum of local crude oil production and waterborne crude oil deliveries. Therefore, the calculated size of the market to be served by pipelines would be negative.

3 shows capacity share, and Column 4 shows HHI contribution (the square of the capacity share) based on the unadjusted capacities. The Gulf Coast Area destination market's HHI and excess capacity ratio are shown in boxes at the bottom of Part I. The market size, which is the refinery capacity within the destination market for Table G.12, is also shown in a box at the bottom left of Part I.

2. Destination Market Capacity-Based HHI Competitiveness Analysis

Tables G.12 through G.15 at the end of this statement present the HHI results for alternative calculations of the capacity-based HHI, Seaway Pipeline's capacity-based market share, and the excess capacity ratio for Seaway Pipeline's destination market. In Table G.12, the destination market is defined as the entire Gulf Coast Area, and the rail unloading facilities' capacities are assigned to the connecting railroads (BNSF, CN, or UP). The HHI shown in Table G.12 is 155 which, because it is below 1,800, indicates an absence of market power in the Gulf Coast Area destination market. Seaway Pipeline's capacity-based market share is 4.0% which indicates that Seaway Pipeline does not have market power. The excess capacity ratio is 1.44 which, because it is larger than 1.0, also indicates an absence of market power.

Table G.13 is the same as Table G.12 except that, in the Table G.13 analysis, the rail loading capacities are assigned to the facilities' owners. This change results in a reallocation of the rail loading capacities which reduces the HHI to 140 (from 155 in Table G.12) but does not affect Seaway Pipeline's market share or the excess capacity ratio.

Tables G.14 and G.15 are, respectively, the same as Tables G.12 and G.13 except that the analyses in Tables G.14 and G.15 are based on the Houston to Lake Charles Area definition of the destination market. The results from Tables G.14 and G.15, as well as the results from Tables G.11 and G.12, are summarized in the table below. In every case, the HHI values are far below 1,800, Seaway Pipeline's capacity share is 5.8% or lower, and the excess capacity ratio is significantly above 1.0 (*i.e.*, 1.44 or higher). Thus, all of the market power statistics in Tables G.12 through G.15 indicate an absence of market power in Seaway Pipeline's destination market.

Summary of Capacity-Based Analysis Results for Seaway Pipeline's Destination Market Presented in Tables G.12 - G.15

I. Gulf Coast Area Definition of the Destination Market

	Table G.12/G.13
Unadjusted Capacity-Based HHI - Rail Unloading Capacity Associated with Connected Rail Carrier	155
Unadjusted Capacity-Based HHI - Rail Unloading Capacity Associated with Terminal Owners	140
Seaway Pipeline Unadjusted Capacity-Based Market Share	4.0%
Excess Capacity Ratio	1.44

II. Houston to Lake Charles Area Definition of the Destination Market

	Table G.14/G.15
Unadjusted Capacity-Based HHI - Rail Unloading Capacity Associated with Connected Rail Carrier	293
Unadjusted Capacity-Based HHI - Rail Unloading Capacity Associated with Terminal Owners	294
Seaway Pipeline Unadjusted Capacity-Based Market Share	5.8%
Excess Capacity Ratio	1.77

B. Destination Market Excess Capacity Held By Others Competitiveness Analysis

Table G.16 at the end of this statement presents the results of the excess capacity held by others analyses for both destination market definitions (the Gulf Coast Area and the Houston to Lake Charles Area). An excess capacity held by others ratio of 1.0 or higher indicates that the competitors to Seaway Pipeline have more than sufficient excess capacity to supply the entire volume of crude oil that is transported by Seaway Pipeline. Table G.16 shows that the excess capacity held by others ratio in

Seaway Pipeline's destination market is at least 9.7 – *i.e.*, Seaway Pipeline's competitors have more than nine times enough available capacity to replace all of Seaway Pipeline's deliveries into the destination market. Thus, the excess capacity held by others ratio strongly indicates that Seaway Pipeline does not have market power in its destination market.

C. Seaway Pipeline's Destination Market Delivery Share

Table G.17 at the end of this statement shows Seaway Pipeline's second half of 2014 deliveries as a percentage of the estimated crude oil usage by destination market refineries. Seaway Pipeline's delivery-based market share is 4.3% for the Gulf Coast Area market definition and 7.7% for the Houston to Lake Charles Area market definition. These low values further indicate that Seaway Pipeline does not have market power in its destination market.

D. Alternative Destination Market Capacity-Based Analysis Based on Net Local Crude Oil Production and Waterborne Deliveries

The calculation of the net local crude oil production and waterborne deliveries for the two definitions of Seaway Pipeline's destination market on the Gulf Coast is summarized in Table G.18. The alternative detailed HHI, market share, and excess capacity ratio calculation results based on the net local crude oil production and waterborne deliveries are presented in Tables G.19 through G.22; these tables are analogous, respectively, to Tables G.12 through G.15 discussed above. Table G.23, which is analogous to Table G.16, presents the alternative excess capacity held by others ratio calculation results based on net local crude oil production and waterborne deliveries. All of the results presented in Tables G.19 through G.23 are consistent with

those presented in Tables G.12 through G.16 and confirm that Seaway Pipeline's destination market is highly competitive.

E. Conclusions Regarding the Competitiveness of Seaway Pipeline's Destination Market on the Gulf Coast

The results of the competitiveness analyses discussed above clearly document that Seaway Pipeline's destination market on the Gulf Coast is highly competitive. As a consequence, the Commission could safely grant permission for Seaway Pipeline to charge market-based rates for deliveries of crude oil to this destination market. The competitive analyses were performed for two alternative definitions of the geographic area comprising this destination market: (1) the Gulf Coast Area; and (2) the Houston to Lake Charles Area. The calculated HHIs are all less than 400, Seaway Pipeline's calculated capacity shares are all less than 7%, the calculated excess capacity ratios are all above 1.3, and the calculated excess capacity held by others ratios are all above 7.1. The calculated amounts of excess capacity are all substantially greater than the capacity of Seaway Pipeline, and the calculated amounts of excess capacity held by others are all substantially higher than the estimated deliveries of Seaway Pipeline to this destination market.[24] All these factors document the highly competitive nature of Seaway Pipeline's destination market on the Gulf Coast and demonstrate that Seaway Pipeline could not profitably charge rates above competitive levels for movements into its Gulf Coast destination market.[25]

[24] For the purposes of calculating the amount of excess capacity held by others, Seaway Pipeline's annual deliveries to the destination market are assumed to equal 90% of the pipeline's capacity.

[25]

Table G.1 - Page 1 of 2
Capacity Based HHI for the Cushing Origin Market - Second Half of 2014
Market Size is Local Crude Oil Production and Rail Loading Capacity Assigned to Connected Rail Carrier

Part I. HHI Results

Company	Unadjusted Capacities (MBD)	Effective Capacities (MBD)	Capacity Share (%)	HHI Contribution	Adjusted Capacities (MBD)	Capacity Share (%)	HHI Contribution
Col. 1	Col. 2	Col. 3	Col. 4	Col. 5	Col. 6	Col. 7	Col. 8
Seaway	420.0	420.0	8.7	76	91.5	5.6	31
Enbridge	645.0	645.0	13.4	179	91.5	5.6	31
Alon	67.0	67.0	1.4	2	67.0	4.1	17
BNSF	174.2	174.2	3.6	13	91.5	5.6	31
BP	200.0	200.0	4.2	17	91.5	5.6	31
BridgeTex	300.0	300.0	6.2	39	91.5	5.6	31
CVR	104.8	104.8	2.2	5	91.5	5.6	31
HollyFrontier	260.3	260.3	5.4	29	91.5	5.6	31
Kinder Morgan	110.0	110.0	2.3	5	91.5	5.6	31
Magellan	275.0	275.0	5.7	33	91.5	5.6	31
Osage	168.0	168.0	3.5	12	91.5	5.6	31
Phillips 66	200.0	200.0	4.2	17	91.5	5.6	31
Plains	110.0	110.0	2.3	5	91.5	5.6	31
Sunoco	490.0	490.0	10.2	103	91.5	5.6	31
TransCanada	700.0	700.0	14.5	211	91.5	5.6	31
Truck-to-Barge	12.0	12.0	0.2	*	12.0	0.7	*
UP	193.1	193.1	4.0	16	91.5	5.6	31
Valero	242.0	242.0	5.0	25	91.5	5.6	31
WRB Refining	146.0	146.0	3.0	9	91.5	5.6	31
Total	4,817.4	4,817.4	100.0		1,634.6	100.0	

Local Area Crude Oil Production (Oklahoma and Permian Basin/ West Texas, MBD)	1,634.6	Effective Capacity HHI	798	Adjusted Capacity HHI	550
		Excess Capacity Ratio	2.95	Average HHI	674

Note: * Sum of extremely small shares squared, which essentially equals zero.

Table G.1 - Page 2 of 2
Capacity Based HHI for the Cushing Origin Market - Second Half of 2014
Market Size is Local Crude Oil Production and Rail Loading Capacity Assigned to Connected Rail Carrier

Part II. Description of the Individual Competing Facilities

Company	Asset	Type	Location	Capacity as of Second Half of 2014 (MBD)
Seaway	Seaway	Crude Oil Pipeline	Cushing, OK/ Houston, TX, Beaumont/Port Arthur, TX	420.0
Enbridge	Flanagan South Lease	Crude Oil Pipeline	Cushing, OK/ Houston, TX, Beaumont/Port Arthur, TX	430.0
Enbridge	Ozark	Crude Oil Pipeline	Cushing, OK/ Wood River, IL	215.0
Alon	Alon	Refinery	Big Spring, TX	67.0
BNSF	BNSF	Crude-by-Rail Facility	Oklahoma/ Permian Basin	174.2
BP	Cushing to Whiting	Crude Oil Pipeline	Cushing, OK/ Whiting, IN	200.0
BridgeTex	BridgeTex	Crude Oil Pipeline	Colorado City, TX/ Houston, TX	300.0
CVR	Barnsdall to Broome	Crude Oil Pipeline	Bartlesville, OK/ Broome, KS (Connection to CVR Pipeline to CVR Coffeyville, KS Refinery)	30.0
CVR	Shidler to Hooser	Crude Oil Pipeline	Shidler, OK/ Hooser, KS (With	4.8
CVR	Wynnewood Refining	Refinery	Wynnewood, OK	70.0
HollyFrontier	Navajo Refining	Refinery	Artesia, NM	105.0
HollyFrontier	HollyFrontier	Refinery	Tulsa, OK (Tulsa East)	70.3
HollyFrontier	HollyFrontier	Refinery	Tulsa, OK (Tulsa West)	85.0
Kinder Morgan	Scurry to El Paso	Crude Oil Pipeline	Scurry County, TX/ El Paso, TX	110.0
Magellan	Longhorn	Crude Oil Pipeline	Crane, TX/ Houston, TX	275.0
Osage	Osage	Crude Oil Pipeline	Cushing, OK/ El Dorado, KS	168.0
Phillips 66	Phillips 66	Refinery	Ponca City, OK	200.0
Plains	Cushing to Broome	Crude Oil Pipeline	Cushing, OK/ Broome, KS	110.0
Sunoco	West Texas Gulf	Crude Oil Pipeline	Colorado City, TX/ Wortham, TX (with connections Longview, TX and Texas Gulf Coast)	340.0
Sunoco	Permian Express 1	Crude Oil Pipeline	Wichita Falls, TX/ Nederland, TX	150.0
TransCanada	Cushing Marketlink	Crude Oil Pipeline	Cushing, OK/ Port Arthur, TX	700.0
Truck-to-Barge	Truck-to-Barge	Truck-To-Barge Loading Facility	Truck from Cushing to Catoosa and Barge from Catoosa to the Gulf Coast	12.0
UP	UP	Crude-by-Rail Facility	Oklahoma/ Permian Basin	193.1
Valero	Valero	Refinery	Ardmore, OK	86.0
Valero	Valero	Refinery	Sunray (McKee), TX	156.0
WRB Refining	WRB Refining	Refinery	Borger, TX	146.0
			Total	4,817.4

1 Source: Table D.2

Table G.2 - Page 1 of 2
Capacity Based HHI for the Cushing Origin Market - Second Half of 2014
Market Size is Local Crude Oil Production and Rail Loading Capacity Assigned to Terminal Owners

Part I. HHI Results

Company	Unadjusted Capacities (MBD)	Effective Capacities (MBD)	Capacity Share (%)	HHI Contribution	Adjusted Capacities (MBD)	Capacity Share (%)	HHI Contribution
Col. 1	Col. 2	Col. 3	Col. 4	Col. 5	Col. 6	Col. 7	Col. 8
Seaway	420.0	420.0	8.7	76	79.2	4.8	23
Enbridge	645.0	645.0	13.4	179	79.2	4.8	23
Alon	67.0	67.0	1.4	2	67.0	4.1	17
Atlas Oil Company	1.0	1.0	0.0	0	1.0	0.1	0
BP	200.0	200.0	4.2	17	79.2	4.8	23
BridgeTex	300.0	300.0	6.2	39	79.2	4.8	23
Carlsbad Transload Facility	70.0	70.0	1.5	2	70.0	4.3	18
CVR	104.8	104.8	2.2	5	79.2	4.8	23
EOG	45.0	45.0	0.9	1	45.0	2.8	8
Genesis Energy	75.0	75.0	1.6	2	75.0	4.6	21
HollyFrontier	260.3	260.3	5.4	29	79.2	4.8	23
Kinder Morgan	110.0	110.0	2.3	5	79.2	4.8	23
Lovington Rail Facility	62.1	62.1	1.3	2	62.1	3.8	14
Magellan	275.0	275.0	5.7	33	79.2	4.8	23
Mercuria Energy Trading	8.1	8.1	0.2	0	8.1	0.5	0
OK Dept. of Transportation	31.1	31.1	0.6	0	31.1	1.9	4
Osage	168.0	168.0	3.5	12	79.2	4.8	23
Pecos Valley	10.0	10.0	0.2	0	10.0	0.6	0
Phillips 66	200.0	200.0	4.2	17	79.2	4.8	23
Plains	110.0	110.0	2.3	5	79.2	4.8	23
Sunoco	490.0	490.0	10.2	103	79.2	4.8	23
TransCanada	700.0	700.0	14.5	211	79.2	4.8	23
Truck-to-Barge	12.0	12.0	0.2	*	12.0	0.7	*
Valero	242.0	242.0	5.0	25	79.2	4.8	23
Watco	65.0	65.0	1.3	2	65.0	4.0	16
WRB Refining	146.0	146.0	3.0	9	79.2	4.8	23
Total	4,817.4	4,817.4	100.0		1,634.6	100.0	

Local Area Crude Oil Production (Oklahoma and Permian Basin/ West Texas, MBD)	1,634.6	Effective Capacity HHI	778	Adjusted Capacity HHI	451
		Excess Capacity Ratio	2.95	Average HHI	614

Note: * Sum of extremely small shares squared, which essentially equals zero.

Table G.2 - Page 2 of 2
Capacity Based HHI for the Cushing Origin Market - Second Half of 2014
Market Size is Local Crude Oil Production and Rail Loading Capacity Assigned to Terminal Owners

Part II. Description of the Individual Competing Facilities

Company	Asset	Type	Location	Capacity as of Second Half of 2014 (MBD)
Seaway	Seaway	Crude Oil Pipeline	Cushing, OK/ Houston, TX, Beaumont/Port Arthur, TX	420.0
Enbridge	Flanagan South Lease	Crude Oil Pipeline	Cushing, OK/ Houston, TX, Beaumont/Port Arthur, TX	430.0
Enbridge	Ozark	Crude Oil Pipeline	Cushing, OK/ Wood River, IL	215.0
Alon	Alon	Refinery	Big Spring, TX	67.0
Atlas Oil Company	Atlas Oil Company	Crude-by-Rail Facility	Odessa, TX	1.0
BP	Cushing to Whiting	Crude Oil Pipeline	Cushing, OK/ Whiting, IN	200.0
BridgeTex	BridgeTex	Crude Oil Pipeline	Colorado City, TX/ Houston, TX	300.0
Carlsbad Transload Facility	Carlsbad Transload	Crude-by-Rail Facility	Carlsbad, NM	70.0
CVR	Barnsdall to Broome	Crude Oil Pipeline	Bartlesville, OK/ Broome, KS (Connection to CVR Pipeline to CVR Coffeyville, KS Refinery)	30.0
CVR	Shidler to Hooser	Crude Oil Pipeline	Shidler, OK/ Hooser, KS (With	4.8
CVR	Wynnewood Refining	Refinery	Wynnewood, OK	70.0
EOG	EOG	Crude-by-Rail Facility	Barnhart, TX	45.0
Genesis Energy	Genesis Energy	Crude-by-Rail Facility	Wink, TX	75.0
HollyFrontier	Navajo Refining	Refinery	Artesia, NM	105.0
HollyFrontier	HollyFrontier	Refinery	Tulsa, OK (Tulsa East)	70.3
HollyFrontier	HollyFrontier	Refinery	Tulsa, OK (Tulsa West)	85.0
Kinder Morgan	Scurry to El Paso	Crude Oil Pipeline	Scurry County, TX/ El Paso, TX	110.0
Lovington Rail Facility	Lovington Rail Facility	Crude-by-Rail Facility	Lovington, NM	62.1
Magellan	Longhorn	Crude Oil Pipeline	Crane, TX/ Houston, TX	275.0
Mercuria Energy Trading	Mercuria Energy Trading	Crude-by-Rail Facility	Brownfield, TX	8.1
OK Dept. of Transportation	OK Dept. of	Crude-by-Rail Facility	Farmrail, Sayre, OK	31.1
Osage	Osage	Crude Oil Pipeline	Cushing, OK/ El Dorado, KS	168.0
Pecos Valley	Pecos Valley	Crude-by-Rail Facility	Pecos, TX, Permian	10.0
Phillips 66	Phillips 66	Refinery	Ponca City, OK	200.0
Plains	Cushing to Broome	Crude Oil Pipeline	Cushing, OK/ Broome, KS	110.0
Sunoco	West Texas Gulf	Crude Oil Pipeline	Colorado City, TX/ Wortham, TX (with connections Longview, TX and Texas Gulf Coast)	340.0
Sunoco	Permian Express 1	Crude Oil Pipeline	Wichita Falls, TX/ Nederland,	150.0
TransCanada	Cushing Marketlink	Crude Oil Pipeline	Cushing, OK/ Port Arthur, TX	700.0
Truck-to-Barge	Truck-to-Barge	Truck-To-Barge Loading Facility	Truck from Cushing to Catoosa and Barge from Catoosa to the Gulf Coast	12.0
Valero	Valero	Refinery	Ardmore, OK	86.0
Valero	Valero	Refinery	Sunray (McKee), TX	156.0
Watco	Watco	Crude-by-Rail Facility	Stroud, OK	65.0
WRB Refining	WRB Refining	Refinery	Borger, TX	146.0
			Total	4,817.4

1 Source: Table D.2

Table G.3 - Page 1 of 2
Capacity Based HHI for the Cushing Origin Market - Second Half of 2014
Market Size is Local Crude Oil Production and Inbound Crude Oil Deliveries from Outside the Local Area and Rail Loading Capacity Assigned to Connected Rail Carrier

Part I. HHI Results

Company	Unadjusted Capacities (MBD)	Effective Capacities (MBD)	Capacity Share (%)	HHI Contribution	Adjusted Capacities (MBD)	Capacity Share (%)	HHI Contribution
Col. 1	Col. 2	Col. 3	Col. 4	Col. 5	Col. 6	Col. 7	Col. 8
Seaway	420.0	420.0	8.7	76	191.5	6.4	41
Enbridge	645.0	645.0	13.4	179	191.5	6.4	41
Alon	67.0	67.0	1.4	2	67.0	2.2	5
BNSF	174.2	174.2	3.6	13	174.2	5.8	34
BP	200.0	200.0	4.2	17	191.5	6.4	41
BridgeTex	300.0	300.0	6.2	39	191.5	6.4	41
CVR	104.8	104.8	2.2	5	104.8	3.5	12
HollyFrontier	260.3	260.3	5.4	29	191.5	6.4	41
Kinder Morgan	110.0	110.0	2.3	5	110.0	3.7	13
Magellan	275.0	275.0	5.7	33	191.5	6.4	41
Osage	168.0	168.0	3.5	12	168.0	5.6	31
Phillips 66	200.0	200.0	4.2	17	191.5	6.4	41
Plains	110.0	110.0	2.3	5	110.0	3.7	13
Sunoco	490.0	490.0	10.2	103	191.5	6.4	41
TransCanada	700.0	700.0	14.5	211	191.5	6.4	41
Truck-to-Barge	12.0	12.0	0.2	*	12.0	0.4	*
UP	193.1	193.1	4.0	16	191.5	6.4	41
Valero	242.0	242.0	5.0	25	191.5	6.4	41
WRB Refining	146.0	146.0	3.0	9	146.0	4.9	24
Total	4,817.4	4,817.4	100.0		2,998.1	100.0	

Local Area Crude Oil Production (Oklahoma and Permian Basin/ West Texas, MBD) and Estimate of Inbound Deliveries from Outside the Local Area	2,998.1	Effective Capacity HHI	798	Adjusted Capacity HHI	582
		Excess Capacity Ratio	1.61	Average HHI	690

1 Note: * Sum of extremely small shares squared, which essentially equals zero.

Table G.3 - Page 2 of 2
Capacity Based HHI for the Cushing Origin Market - Second Half of 2014
Market Size is Local Crude Oil Production and Inbound Crude Oil Deliveries from Outside the Local Area and Rail Loading Capacity Assigned to Connected Rail Carrier

Part II. Description of the Individual Competing Facilities

Company	Asset	Type	Location	Capacity as of Second Half of 2014 (MBD)
Seaway	Seaway	Crude Oil Pipeline	Cushing, OK/ Houston, TX, Beaumont/Port Arthur, TX	420.0
Enbridge	Flanagan South Lease	Crude Oil Pipeline	Cushing, OK/ Houston, TX, Beaumont/Port Arthur, TX	430.0
Enbridge	Ozark	Crude Oil Pipeline	Cushing, OK/ Wood River, IL	215.0
Alon	Alon	Refinery	Big Spring, TX	67.0
BNSF	BNSF	Crude-by-Rail Facility	Oklahoma/ Permian Basin	174.2
BP	Cushing to Whiting	Crude Oil Pipeline	Cushing, OK/ Whiting, IN	200.0
BridgeTex	BridgeTex	Crude Oil Pipeline	Colorado City, TX/ Houston, TX	300.0
CVR	Barnsdall to Broome	Crude Oil Pipeline	Bartlesville, OK/ Broome, KS (Connection to CVR Pipeline to CVR Coffeyville, KS Refinery)	30.0
CVR	Shidler to Hooser	Crude Oil Pipeline	Shidler, OK/ Hooser, KS (With	4.8
CVR	Wynnewood Refining	Refinery	Wynnewood, OK	70.0
HollyFrontier	Navajo Refining	Refinery	Artesia, NM	105.0
HollyFrontier	HollyFrontier	Refinery	Tulsa, OK (Tulsa East)	70.3
HollyFrontier	HollyFrontier	Refinery	Tulsa, OK (Tulsa West)	85.0
Kinder Morgan	Scurry to El Paso	Crude Oil Pipeline	Scurry County, TX/ El Paso, TX	110.0
Magellan	Longhorn	Crude Oil Pipeline	Crane, TX/ Houston, TX	275.0
Osage	Osage	Crude Oil Pipeline	Cushing, OK/ El Dorado, KS	168.0
Phillips 66	Phillips 66	Refinery	Ponca City, OK	200.0
Plains	Cushing to Broome	Crude Oil Pipeline	Cushing, OK/ Broome, KS	110.0
Sunoco	West Texas Gulf	Crude Oil Pipeline	Colorado City, TX/ Wortham, TX (with connections Longview, TX and Texas Gulf Coast)	340.0
Sunoco	Permian Express 1	Crude Oil Pipeline	Wichita Falls, TX/ Nederland, TX	150.0
TransCanada	Cushing Marketlink	Crude Oil Pipeline	Cushing, OK/ Port Arthur, TX	700.0
Truck-to-Barge	Truck-to-Barge	Truck-To-Barge Loading Facility	Truck from Cushing to Catoosa and Barge from Catoosa to the Gulf Coast	12.0
UP	UP	Crude-by-Rail Facility	Oklahoma/ Permian Basin	193.1
Valero	Valero	Refinery	Ardmore, OK	86.0
Valero	Valero	Refinery	Sunray (McKee), TX	156.0
WRB Refining	WRB Refining	Refinery	Borger, TX	146.0
			Total	4,817.4

1 Source: Table D.2

Table G.4 - Page 1 of 2
Capacity Based HHI for the Cushing Origin Market - Second Half of 2014
Market Size is Local Crude Oil Production and Inbound Crude Oil Deliveries from Outside the Local Area and Rail Loading Capacity Assigned to Terminal Owners

Part I. HHI Results

Company	Unadjusted Capacities (MBD)	Effective Capacities (MBD)	Capacity Share (%)	HHI Contribution	Adjusted Capacities (MBD)	Capacity Share (%)	HHI Contribution
Col. 1	Col. 2	Col. 3	Col. 4	Col. 5	Col. 6	Col. 7	Col. 8
Seaway	420.0	420.0	8.7	76	191.3	6.4	41
Enbridge	645.0	645.0	13.4	179	191.3	6.4	41
Alon	67.0	67.0	1.4	2	67.0	2.2	5
Atlas Oil Company	1.0	1.0	0.0	0	1.0	0.0	0
BP	200.0	200.0	4.2	17	191.3	6.4	41
BridgeTex	300.0	300.0	6.2	39	191.3	6.4	41
Carlsbad Transload Facility	70.0	70.0	1.5	2	70.0	2.3	5
CVR	104.8	104.8	2.2	5	104.8	3.5	12
EOG	45.0	45.0	0.9	1	45.0	1.5	2
Genesis Energy	75.0	75.0	1.6	2	75.0	2.5	6
HollyFrontier	260.3	260.3	5.4	29	191.3	6.4	41
Kinder Morgan	110.0	110.0	2.3	5	110.0	3.7	13
Lovington Rail Facility	62.1	62.1	1.3	2	62.1	2.1	4
Magellan	275.0	275.0	5.7	33	191.3	6.4	41
Mercuria Energy Trading	8.1	8.1	0.2	0	8.1	0.3	0
OK Dept. of Transportation	31.1	31.1	0.6	0	31.1	1.0	1
Osage	168.0	168.0	3.5	12	168.0	5.6	31
Pecos Valley	10.0	10.0	0.2	0	10.0	0.3	0
Phillips 66	200.0	200.0	4.2	17	191.3	6.4	41
Plains	110.0	110.0	2.3	5	110.0	3.7	13
Sunoco	490.0	490.0	10.2	103	191.3	6.4	41
TransCanada	700.0	700.0	14.5	211	191.3	6.4	41
Truck-to-Barge	12.0	12.0	0.2	*	12.0	0.4	*
Valero	242.0	242.0	5.0	25	191.3	6.4	41
Watco	65.0	65.0	1.3	2	65.0	2.2	5
WRB Refining	146.0	146.0	3.0	9	146.0	4.9	24
Total	4,817.4	4,817.4	100.0		2,998.1	100.0	

Local Area Crude Oil Production (Oklahoma and Permian Basin/ West Texas, MBD) and Estimate of Inbound Deliveries from Outside the Local Area	2,998.1	Effective Capacity HHI	778	Adjusted Capacity HHI	531
		Excess Capacity Ratio	1.61	Average HHI	654

1 Note: * Sum of extremely small shares squared, which essentially equals zero.

Table G.4 - Page 2 of 2
Capacity Based HHI for the Cushing Origin Market - Second Half of 2014
Market Size is Local Crude Oil Production and Inbound Crude Oil Deliveries from Outside the Local Area and Rail Loading Capacity Assigned to Terminal Owners

Part II. Description of the Individual Competing Facilities

Company	Asset	Type	Location	Capacity as of Second Half of 2014 (MBD)
Seaway	Seaway	Crude Oil Pipeline	Cushing, OK/ Houston, TX, Beaumont/Port Arthur, TX	420.0
Enbridge	Flanagan South Lease	Crude Oil Pipeline	Cushing, OK/ Houston, TX, Beaumont/Port Arthur, TX	430.0
Enbridge	Ozark	Crude Oil Pipeline	Cushing, OK/ Wood River, IL	215.0
Alon	Alon	Refinery	Big Spring, TX	67.0
Atlas Oil Company	Atlas Oil Company	Crude-by-Rail Facility	Odessa, TX	1.0
BP	Cushing to Whiting	Crude Oil Pipeline	Cushing, OK/ Whiting, IN	200.0
BridgeTex	BridgeTex	Crude Oil Pipeline	Colorado City, TX/ Houston, TX	300.0
Carlsbad Transload Facility	Carlsbad Transload	Crude-by-Rail Facility	Carlsbad, NM	70.0
CVR	Barnsdall to Broome	Crude Oil Pipeline	Bartlesville, OK/ Broome, KS (Connection to CVR Pipeline to CVR Coffeyville, KS Refinery)	30.0
CVR	Shidler to Hooser	Crude Oil Pipeline	Shidler, OK/ Hooser, KS (With	4.8
CVR	Wynnewood Refining	Refinery	Wynnewood, OK	70.0
EOG	EOG	Crude-by-Rail Facility	Barnhart, TX	45.0
Genesis Energy	Genesis Energy	Crude-by-Rail Facility	Wink, TX	75.0
HollyFrontier	Navajo Refining	Refinery	Artesia, NM	105.0
HollyFrontier	HollyFrontier	Refinery	Tulsa, OK (Tulsa East)	70.3
HollyFrontier	HollyFrontier	Refinery	Tulsa, OK (Tulsa West)	85.0
Kinder Morgan	Scurry to El Paso	Crude Oil Pipeline	Scurry County, TX/ El Paso, TX	110.0
Lovington Rail Facility	Lovington Rail Facility	Crude-by-Rail Facility	Lovington, NM	62.1
Magellan	Longhorn	Crude Oil Pipeline	Crane, TX/ Houston, TX	275.0
Mercuria Energy Trading	Mercuria Energy Trading	Crude-by-Rail Facility	Brownfield, TX	8.1
OK Dept. of Transportation	OK Dept. of	Crude-by-Rail Facility	Farmrail, Sayre, OK	31.1
Osage	Osage	Crude Oil Pipeline	Cushing, OK/ El Dorado, KS	168.0
Pecos Valley	Pecos Valley	Crude-by-Rail Facility	Pecos, TX, Permian	10.0
Phillips 66	Phillips 66	Refinery	Ponca City, OK	200.0
Plains	Cushing to Broome	Crude Oil Pipeline	Cushing, OK/ Broome, KS	110.0
Sunoco	West Texas Gulf	Crude Oil Pipeline	Colorado City, TX/ Wortham, TX (with connections Longview, TX and Texas Gulf Coast)	340.0
Sunoco	Permian Express 1	Crude Oil Pipeline	Wichita Falls, TX/ Nederland,	150.0
TransCanada	Cushing Marketlink	Crude Oil Pipeline	Cushing, OK/ Port Arthur, TX	700.0
Truck-to-Barge	Truck-to-Barge	Truck-To-Barge Loading Facility	Truck from Cushing to Catoosa and Barge from Catoosa to the Gulf Coast	12.0
Valero	Valero	Refinery	Ardmore, OK	86.0
Valero	Valero	Refinery	Sunray (McKee), TX	156.0
Watco	Watco	Crude-by-Rail Facility	Stroud, OK	65.0
WRB Refining	WRB Refining	Refinery	Borger, TX	146.0
			Total	4,817.4

1 Source: Table D.2

Table G.5 - Page 1 of 3
Capacity Based HHI for the Western Canada Production Area -
Including U.S. Refineries Who Use Western Canada Crude Oil

Part I. HHI Results

Company	Unadjusted Capacities (MBD)	Effective Capacities (MBD)	Capacity Share (%)	HHI Contribution	Adjusted Capacities (MBD)	Capacity Share (%)	HHI Contribution
Col. 1	Col. 2	Col. 3	Col. 4	Col. 5	Col. 6	Col. 7	Col. 8
Seaway	420.0	420.0	4.0	16	108.3	3.4	11
Enbridge	430.0	430.0	4.1	16	108.3	3.4	11
BP	638.5	638.5	6.0	36	108.3	3.4	11
BP-Husky	135.0	135.0	1.3	2	108.3	3.4	11
Calumet	48.0	48.0	0.5	0	48.0	1.5	2
Chevron	614.3	614.3	5.8	34	108.3	3.4	11
CHS	59.6	59.6	0.6	0	59.6	1.9	3
Citgo	172.0	172.0	1.6	3	108.3	3.4	11
Consumers' Coop	145.0	145.0	1.4	2	108.3	3.4	11
Continental Refining	5.5	5.5	0.1	0	5.5	0.2	0
ExxonMobil	720.1	720.1	6.8	46	108.3	3.4	11
Gibson	19.0	19.0	0.2	0	19.0	0.6	0
HollyFrontier	332.4	332.4	3.1	10	108.3	3.4	11
Husky	190.3	190.3	1.8	3	108.3	3.4	11
Kern Oil & Refining	26.0	26.0	0.2	0	26.0	0.8	1
Koch Refining	270.0	270.0	2.5	7	108.3	3.4	11
Marathon	657.0	657.0	6.2	38	108.3	3.4	11
Monroe Energy	185.0	185.0	1.7	3	108.3	3.4	11
Northern Tier Energy	89.5	89.5	0.8	1	89.5	2.8	8
Nova Chemicals	80.0	80.0	0.8	1	80.0	2.5	6
Nustar Asphalt	70.0	70.0	0.7	0	70.0	2.2	5
OK Dept. of Transportation	31.1	31.1	0.3	0	31.1	1.0	1
Osage	168.0	168.0	1.6	3	108.3	3.4	11
PBF Energy	502.2	502.2	4.7	22	108.3	3.4	11
Philadelphia Energy Solutions	335.0	335.0	3.2	10	108.3	3.4	11
Phillips 66	857.2	857.2	8.1	66	108.3	3.4	11
Plains	110.0	110.0	1.0	1	108.3	3.4	11
Shell	472.4	472.4	4.5	20	108.3	3.4	11
Sinclair	74.0	74.0	0.7	0	74.0	2.3	5
Suncor	467.0	467.0	4.4	19	108.3	3.4	11
Tesoro	537.0	537.0	5.1	26	108.3	3.4	11
TransCanada	700.0	700.0	6.6	44	108.3	3.4	11
Truck-to-Barge	12.0	12.0	0.1	*	12.0	0.4	*
United Refining	65.0	65.0	0.6	0	65.0	2.0	4
U.S. Oil & Refining	40.7	40.7	0.4	0	40.7	1.3	2
Valero	451.3	451.3	4.3	18	108.3	3.4	11
WRB Refining	460.0	460.0	4.3	19	108.3	3.4	11
Total	10,590.0	10,590.0	100.0		3,219.1	100.0	

Western Canadian Crude Oil Production (MBD)	3,219.1	Effective Capacity HHI	467	Adjusted Capacity HHI	309
		Excess Capacity Ratio	3.29	Average HHI	388

1 Note: * Sum of extremely small shares squared, which essentially equals zero.

Table G.5 - Page 2 of 3
Capacity Based HHI for the Western Canada Production Area -
Including U.S. Refineries Who Use Western Canada Crude Oil

Part II. Description of the Individual Competing Facilities

Company	Asset	Type	Location	Capacity as of Second Half of 2014 (MBD)
Seaway	Seaway	Pipeline		420.0
Enbridge	Flanagan South Lease	Pipeline		430.0
BP	BP West Coast Products	Refinery	Ferndale, WA	225.0
BP-Husky	BP-Husky	Refinery	Toledo, OH	135.0
BP	BP Products North	Refinery	Whiting, IN	413.5
Calumet	Montana Refining	Refinery	Great Falls, MT	10.0
Calumet	Calumet Lubricants	Refinery	Superior, WI	38.0
Chevron	Chevron	Refinery	Burnaby, BC	55.0
Chevron	Chevron	Refinery	El Segundo, CA	269.0
Chevron	Chevron	Refinery	Richmond, CA	245.3
Chevron	Chevron	Refinery	Salt Lake City, UT	45.0
CHS	Cenex	Refinery	Laurel, MT	59.6
Citgo	PDV Midwest Refining	Refinery	Lemont, IL	172.0
Consumers' Coop	Consumers' Coop	Refinery	Regina, SK	145.0
Continental Refining	Continental Refining	Refinery	Somerset, KY	5.5
ExxonMobil	ExxonMobil	Refinery	Billings, MT	60.0
ExxonMobil	Imperial Oil	Refinery	Edmonton, AB	189.0
ExxonMobil	ExxonMobil	Refinery	Joliet, IL	238.6
ExxonMobil	Imperial Oil	Refinery	Nanticoke, ON	113.5
ExxonMobil	Imperial Oil	Refinery	Sarnia, ON	119.0
Gibson	Moose Jaw Refinery	Refinery	Moose Jaw, SK	19.0
HollyFrontier	Navajo Refining	Refinery	Artesia, NM	105.0
HollyFrontier	Frontier Refining	Refinery	Cheyenne, WY	47.0
HollyFrontier	HollyFrontier	Refinery	Tulsa, OK (Tulsa East)	70.3
HollyFrontier	HollyFrontier	Refinery	Tulsa, OK (Tulsa West)	85.0
HollyFrontier	HollyFrontier	Refinery	Woods Cross, UT	25.1
Husky	Lima Refining	Refinery	Lima, OH	155.0
Husky	Husky	Refinery	Lloydminster, AB	25.0
Husky	Husky	Refinery	Prince George, BC	10.3
Kern Oil & Refining	Kern Oil & Refining	Refinery	Bakersfield, CA	26.0
Koch Refining	Flint Hills Resources	Refinery	Pine Bend, MN	270.0
Marathon	Marathon	Refinery	Canton, OH	80.0
Marathon	Marathon	Refinery	Catlettsburg, KY	242.0
Marathon	Marathon	Refinery	Detroit, MI	123.0
Marathon	Marathon	Refinery	Robinson, IL	212.0
Monroe Energy	Monroe Energy	Refinery	Trainer, PA	185.0
Northern Tier Energy	Northern Tier Energy	Refinery	St. Paul Park, MN	89.5
Nova Chemicals	Nova Chemicals	Refinery	Corunna, ON	80.0
NuStar Asphalt	NuStar Asphalt	Refinery	Paulsboro, NJ	70.0
OK Dept. of Transportation	Farmrail, Sayre, OK	Crude-by-Rail Facility	Farmrail, Sayre, OK	31.1
Osage	Osage	Pipeline		168.0
PBF Energy	Delaware City Refining	Refinery	Delaware City, DE	182.2
PBF Energy	Paulsboro Refining	Refinery	Paulsboro, NJ	160.0
PBF Energy	Toledo Refining	Refinery	Toledo, OH	160.0
Philadelphia Energy Solutions	Philadelphia Energy	Refinery	Philadelphia, PA	335.0
Phillips 66	Phillips 66	Refinery	Billings, MT	59.0
Phillips 66	Phillips 66	Refinery	Ferndale, WA	101.0
Phillips 66	Phillips 66	Refinery	Linden, NJ	238.0
Phillips 66	Phillips 66	Refinery	Ponca City, OK	200.0
Phillips 66	Phillips 66	Refinery	Rodeo, CA	120.2
Phillips 66	Phillips 66	Refinery	Wilmington, CA	139.0

Table G.5 - Page 3 of 3
Capacity Based HHI for the Western Canada Production Area -
Including U.S. Refineries Who Use Western Canada Crude Oil

Part II. Description of the Individual Competing Facilities (continued)

Company	Asset	Type	Location	Capacity as of Second Half of 2014 (MBD)
Plains	Cushing to Broome	Pipeline		110.0
Shell	Shell	Refinery	Anacortes, WA	145.0
Shell	Shell	Refinery	Martinez, CA	156.4
Shell	Shell	Refinery	Sarnia, ON	71.0
Shell	Shell Canada	Refinery	Scotford, AB	100.0
Sinclair	Sinclair	Refinery	Sinclair, WY	74.0
Suncor	Suncor	Refinery	Commerce City East, CO	36.0
Suncor	Suncor	Refinery	Commerce City West, CO	67.0
Suncor	Suncor	Refinery	Edmonton, AB	142.0
Suncor	Suncor Energy	Refinery	Montreal, QC	137.0
Suncor	Suncor	Refinery	Sarnia, ON	85.0
Tesoro	Tesoro	Refinery	Anacortes, WA	120.0
Tesoro	Tesoro	Refinery	Carson, CA	251.0
Tesoro	Tesoro	Refinery	Martinez, CA	166.0
TransCanada	Marketlink	Pipeline		700.0
Truck-to-Barge	Truck-to-Barge	Truck-To-Barge Loading Facility	Truck from Cushing to Catoosa and Barge from Catoosa to the Gulf Coast	12.0
U.S. Oil & Refining	U.S. Oil & Refining	Refinery	Tacoma, WA	40.7
United Refining	United Refining	Refinery	Warren, PA	65.0
Valero	Valero	Refinery	Benicia, CA	132.0
Valero	Utramar	Refinery	Levis, QC	235.0
Valero	Valero	Refinery	Wilmington (Asphalt), CA	6.3
Valero	Valero	Refinery	Wilmington, CA	78.0
WRB Refining	WRB Refining	Refinery	Borger, TX	146.0
WRB Refining	WRB Refining	Refinery	Wood River, IL	314.0
			Total	10,590.0

1 Source: Tables A.4 and D.2

Table G.6 - Page 1 of 2
Capacity Based HHI for the Western Canada Production Area -
Including U.S. Refineries Whose Use of Western Canada Crude Oil is 40% or More of Crude Oil Input

Part I. HHI Results

Company	Unadjusted Capacities (MBD)	Effective Capacities (MBD)	Capacity Share (%)	HHI Contribution	Adjusted Capacities (MBD)	Capacity Share (%)	HHI Contribution
Col. 1	Col. 2	Col. 3	Col. 4	Col. 5	Col. 6	Col. 7	Col. 8
Seaway	420.0	420.0	6.9	47	141.9	4.4	19
Enbridge	430.0	430.0	7.0	49	141.9	4.4	19
BP	413.5	413.5	6.8	46	141.9	4.4	19
BP-Husky	135.0	135.0	2.2	5	135.0	4.2	18
Calumet	48.0	48.0	0.8	1	48.0	1.5	2
Chevron	55.0	55.0	0.9	1	55.0	1.7	3
CHS	59.6	59.6	1.0	1	59.6	1.9	3
Citgo	172.0	172.0	2.8	8	141.9	4.4	19
Consumers' Coop	145.0	145.0	2.4	6	141.9	4.4	19
ExxonMobil	720.1	720.1	11.8	139	141.9	4.4	19
Gibson	19.0	19.0	0.3	0	19.0	0.6	0
HollyFrontier	47.0	47.0	0.8	1	47.0	1.5	2
Husky	190.3	190.3	3.1	10	141.9	4.4	19
Koch Refining	270.0	270.0	4.4	19	141.9	4.4	19
Marathon	123.0	123.0	2.0	4	123.0	3.8	15
Northern Tier Energy	89.5	89.5	1.5	2	89.5	2.8	8
Nova Chemicals	80.0	80.0	1.3	2	80.0	2.5	6
OK Dept. of Transportation	31.1	31.1	0.5	0	31.1	1.0	1
Osage	168.0	168.0	2.7	8	141.9	4.4	19
PBF Energy	160.0	160.0	2.6	7	141.9	4.4	19
Phillips 66	297.0	297.0	4.9	24	141.9	4.4	19
Plains	110.0	110.0	1.8	3	110.0	3.4	12
Shell	171.0	171.0	2.8	8	141.9	4.4	19
Sinclair	74.0	74.0	1.2	1	74.0	2.3	5
Suncor	364.0	364.0	5.9	35	141.9	4.4	19
TransCanada	700.0	700.0	11.4	131	141.9	4.4	19
Truck-to-Barge	12.0	12.0	0.2	*	12.0	0.4	*
United Refining	65.0	65.0	1.1	1	65.0	2.0	4
Valero	235.0	235.0	3.8	15	141.9	4.4	19
WRB Refining	314.0	314.0	5.1	26	141.9	4.4	19
Total	6,118.1	6,118.1	100.0		3,219.1	100.0	

Western Canadian Crude Oil Production (MBD)	3,219.1	Effective Capacity HHI	598	Adjusted Capacity HHI	390
		Excess Capacity Ratio	1.90	Average HHI	494

1 Note: * Sum of extremely small shares squared, which essentially equals zero.

Table G.6 - Page 2 of 2
Capacity Based HHI for the Western Canada Production Area -
Including U.S. Refineries Whose Use of Western Canada Crude Oil is 40% or More of Crude Oil Input

Part II. Description of the Individual Competing Facilities

Company	Asset	Type	Location	Capacity as of Second Half of 2014 (MBD)
Seaway	Seaway	Pipeline		420.0
Enbridge	Flanagan South Lease	Pipeline		430.0
BP-Husky	BP-Husky	Refinery	Toledo, OH	135.0
BP	BP Products North	Refinery	Whiting, IN	413.5
Calumet	Montana Refining	Refinery	Great Falls, MT	10.0
Calumet	Calumet Lubricants	Refinery	Superior, WI	38.0
Chevron	Chevron	Refinery	Burnaby, BC	55.0
CHS	Cenex	Refinery	Laurel, MT	59.6
Citgo	PDV Midwest Refining	Refinery	Lemont, IL	172.0
Consumers' Coop	Consumers' Coop	Refinery	Regina, SK	145.0
ExxonMobil	ExxonMobil	Refinery	Billings, MT	60.0
ExxonMobil	Imperial Oil	Refinery	Edmonton, AB	189.0
ExxonMobil	ExxonMobil	Refinery	Joliet, IL	238.6
ExxonMobil	Imperial Oil	Refinery	Nanticoke, ON	113.5
ExxonMobil	Imperial Oil	Refinery	Sarnia, ON	119.0
Gibson	Moose Jaw Refinery	Refinery	Moose Jaw, SK	19.0
HollyFrontier	Frontier Refining	Refinery	Cheyenne, WY	47.0
Husky	Lima Refining	Refinery	Lima, OH	155.0
Husky	Husky	Refinery	Lloydminster, AB	25.0
Husky	Husky	Refinery	Prince George, BC	10.3
Koch Refining	Flint Hills Resources	Refinery	Pine Bend, MN	270.0
Marathon	Marathon	Refinery	Detroit, MI	123.0
Northern Tier Energy	Northern Tier Energy	Refinery	St. Paul Park, MN	89.5
Nova Chemicals	Nova Chemicals	Refinery	Corunna, ON	80.0
OK Dept. of Transportation	Farmrail, Sayre, OK	Crude-by-Rail Facility	Farmrail, Sayre, OK	31.1
Osage	Osage	Pipeline		168.0
PBF Energy	Toledo Refining	Refinery	Toledo, OH	160.0
Phillips 66	Phillips 66	Refinery	Billings, MT	59.0
Phillips 66	Phillips 66	Refinery	Linden, NJ	238.0
Plains	Cushing to Broome	Pipeline		110.0
Shell	Shell	Refinery	Sarnia, ON	71.0
Shell	Shell Canada	Refinery	Scotford, AB	100.0
Sinclair	Sinclair	Refinery	Sinclair, WY	74.0
Suncor	Suncor	Refinery	Edmonton, AB	142.0
Suncor	Suncor Energy	Refinery	Montreal, QC	137.0
Suncor	Suncor	Refinery	Sarnia, ON	85.0
TransCanada	Marketlink	Pipeline		700.0
Truck-to-Barge	Truck-to-Barge	Truck-To-Barge Loading Facility	Truck from Cushing to Catoosa and Barge from Catoosa to the Gulf Coast	12.0
United Refining	United Refining	Refinery	Warren, PA	65.0
Valero	Utramar	Refinery	Levis, QC	235.0
WRB Refining	WRB Refining	Refinery	Wood River, IL	314.0
			Total	6,118.1

1 Source: Tables A.5 and D.2

Table G.7- Page 1 of 2
Capacity Based HHI for Rocky Mountain Production Area -
U.S. Upper Midwest Refineries Limited to Those Who Use Western Canada Crude Oil

Part I. HHI Results

Company	Unadjusted Capacities (MBD)	Effective Capacities (MBD)	Capacity Share (%)	HHI Contribution	Adjusted Capacities (MBD)	Capacity Share (%)	HHI Contribution
Col. 1	Col. 2	Col. 3	Col. 4	Col. 5	Col. 6	Col. 7	Col. 8
Seaway	420.0	420.0	6.5	42	49.4	3.6	13
Enbridge	430.0	430.0	6.7	44	49.4	3.6	13
Antelope Refining LLC	3.8	3.8	0.1	0	3.8	0.3	0
Big West	30.5	30.5	0.5	0	30.5	2.2	5
BP-Husky	135.0	135.0	2.1	4	49.4	3.6	13
BP	413.5	413.5	6.4	41	49.4	3.6	13
Calumet	38.0	38.0	0.6	0	38.0	2.8	8
Chevron	45.0	45.0	0.7	0	45.0	3.3	11
CHS	59.6	59.6	0.9	1	49.4	3.6	13
Citgo	172.0	172.0	2.7	7	49.4	3.6	13
CVR	70.0	70.0	1.1	1	49.4	3.6	13
ExxonMobil	60.0	60.0	0.9	1	49.4	3.6	13
HollyFrontier	332.4	332.4	5.2	27	49.4	3.6	13
Husky	155.0	155.0	2.4	6	49.4	3.6	13
Irving Oil	250.0	250.0	3.9	15	49.4	3.6	13
Koch Refining	270.0	270.0	4.2	18	49.4	3.6	13
Marathon	657.0	657.0	10.2	104	49.4	3.6	13
Northern Tier Energy	89.5	89.5	1.4	2	49.4	3.6	13
OK Dept. of Transportation	31.1	31.1	0.5	0	31.1	2.3	5
Osage	168.0	168.0	2.6	7	49.4	3.6	13
PBF Energy	160.0	160.0	2.5	6	49.4	3.6	13
Phillips 66	200.0	200.0	3.1	10	49.4	3.6	13
Plains	110.0	110.0	1.7	3	49.4	3.6	13
Silver Eagle	18.0	18.0	0.3	0	18.0	1.3	2
Sinclair	98.5	98.5	1.5	2	49.4	3.6	13
Suncor	240.0	240.0	3.7	14	49.4	3.6	13
Tesoro	127.5	127.5	2.0	4	49.4	3.6	13
TransCanada	700.0	700.0	10.9	118	49.4	3.6	13
Truck-to-Barge	12.0	12.0	0.2	*	12.0	0.9	*
Valero	477.0	477.0	7.4	55	49.4	3.6	13
WRB Refining	460.0	460.0	7.1	51	49.4	3.6	13
Wyoming Refining	14.0	14.0	0.2	0	14.0	1.0	1
Total	6,447.4	6,447.4	100.0		1,378.9	100.0	

Rocky Mountain Crude Oil Production (MBD)	1,378.9	Effective Capacity HHI	584	Adjusted Capacity HHI	340
		Excess Capacity Ratio	4.68	Average HHI	462

Refineries were selected for inclusion as follows: (1) Rocky Mountain Area refineries that process Rocky Mountain crude oil (see Table A.7); (2) Upper Midwest Area refineries where Rocky Mountain crude oil is a competitive alternative (see Table A.9); (3) refineries in other areas that are documented to process Rocky Mountain crude oil delivered by rail (see Table A.10).

1 Note: * Sum of extremely small shares squared, which essentially equals zero.

Table G.7 - Page 2 of 2
Capacity Based HHI for Rocky Mountain Production Area -
U.S. Upper Midwest Refineries Limited to Those Who Use Western Canada Crude Oil

Part II. Description of the Individual Competing Facilities

Company	Asset	Type	Location	Capacity as of Second Half of 2014 (MBD)
Seaway	Seaway	Pipeline		420.0
Enbridge	Flanagan South Lease	Pipeline		430.0
Antelope Refining LLC	Antelope Refining	Refinery	Douglas, WY	3.8
Big West	Big West	Refinery	North Salt Lake, UT	30.5
BP-Husky	BP-Husky	Refinery	Toledo, OH	135.0
BP	BP Products North	Refinery	Whiting, IN	413.5
Calumet	Calumet Lubricants	Refinery	Superior, WI	38.0
Chevron	Chevron	Refinery	Salt Lake City, UT	45.0
CHS	Cenex	Refinery	Laurel, MT	59.6
Citgo	PDV Midwest Refining	Refinery	Lemont, IL	172.0
CVR	Wynnewood Refining	Refinery	Wynnewood, OK	70.0
ExxonMobil	ExxonMobil	Refinery	Billings, MT	60.0
HollyFrontier	Navajo Refining	Refinery	Artesia, NM	105.0
HollyFrontier	Frontier Refining	Refinery	Cheyenne, WY	47.0
HollyFrontier	HollyFrontier	Refinery	Tulsa, OK (Tulsa East)	70.3
HollyFrontier	HollyFrontier	Refinery	Tulsa, OK (Tulsa West)	85.0
HollyFrontier	HollyFrontier	Refinery	Woods Cross, UT	25.1
Husky	Lima Refining	Refinery	Lima, OH	155.0
Irving Oil	Irving Oil	Refinery	St. John, NB	250.0
Koch Refining	Flint Hills Resources	Refinery	Pine Bend, MN	270.0
Marathon	Marathon	Refinery	Canton, OH	80.0
Marathon	Marathon	Refinery	Catlettsburg, KY	242.0
Marathon	Marathon	Refinery	Detroit, MI	123.0
Marathon	Marathon	Refinery	Robinson, IL	212.0
Northern Tier Energy	Northern Tier Energy	Refinery	St. Paul Park, MN	89.5
OK Dept. of Transportation	Farmrail, Sayre, OK	Crude-by-Rail Facility	Farmrail, Sayre, OK	31.1
Osage	Osage	Pipeline		168.0
PBF Energy	Toledo Refining	Refinery	Toledo, OH	160.0
Phillips 66	Phillips 66	Refinery	Ponca City, OK	200.0
Plains	Cushing to Broome	Pipeline		110.0
Silver Eagle	Silver Eagle	Refinery	Evanston, WY	3.0
Silver Eagle	Silver Eagle	Refinery	Woods Cross, UT	15.0
Sinclair	Little America	Refinery	Casper, WY	24.5
Sinclair	Sinclair	Refinery	Sinclair, WY	74.0
Suncor	Suncor	Refinery	Commerce City East, CO	36.0
Suncor	Suncor	Refinery	Commerce City West, CO	67.0
Suncor	Suncor Energy	Refinery	Montreal, QC	137.0
Tesoro	Tesoro	Refinery	Mandan, ND	70.0
Tesoro	Tesoro	Refinery	Salt Lake City, UT	57.5
TransCanada	Marketlink	Pipeline		700.0
Truck-to-Barge	Truck-to-Barge	Truck-To-Barge Loading Facility	Truck from Cushing to Catoosa and Barge from Catoosa to the Gulf Coast	12.0
Valero	Valero	Refinery	Ardmore, OK	86.0
Valero	Utramar	Refinery	Levis, QC	235.0
Valero	Valero	Refinery	Sunray (McKee), TX	156.0
WRB Refining	WRB Refining	Refinery	Borger, TX	146.0
WRB Refining	WRB Refining	Refinery	Wood River, IL	314.0
Wyoming Refining	Wyoming Refining	Refinery	New Castle, WY	14.0
			Total	6,447.4

1 Source: Tables A.7, A.9, A.10, and D.2.

Table G.8 - Page 1 of 2
Capacity Based HHI for Rocky Mountain Production Area -
U.S. Upper Midwest Refineries Limited to Those Whose Use of Western Canada Crude Oil is 40% or More of Crude Oil Inputs

Part I. HHI Results

Company	Unadjusted Capacities (MBD)	Effective Capacities (MBD)	Capacity Share (%)	HHI Contribution	Adjusted Capacities (MBD)	Capacity Share (%)	HHI Contribution
Col. 1	Col. 2	Col. 3	Col. 4	Col. 5	Col. 6	Col. 7	Col. 8
Seaway	420.0	420.0	7.1	50	49.4	3.6	13
Enbridge	430.0	430.0	7.3	53	49.4	3.6	13
Antelope Refining LLC	3.8	3.8	0.1	0	3.8	0.3	0
Big West	30.5	30.5	0.5	0	30.5	2.2	5
BP-Husky	135.0	135.0	2.3	5	49.4	3.6	13
BP	413.5	413.5	7.0	49	49.4	3.6	13
Calumet	38.0	38.0	0.6	0	38.0	2.8	8
Chevron	45.0	45.0	0.8	1	45.0	3.3	11
CHS	59.6	59.6	1.0	1	49.4	3.6	13
Citgo	172.0	172.0	2.9	8	49.4	3.6	13
CVR	70.0	70.0	1.2	1	49.4	3.6	13
ExxonMobil	60.0	60.0	1.0	1	49.4	3.6	13
HollyFrontier	332.4	332.4	5.6	32	49.4	3.6	13
Husky	155.0	155.0	2.6	7	49.4	3.6	13
Irving Oil	250.0	250.0	4.2	18	49.4	3.6	13
Koch Refining	270.0	270.0	4.6	21	49.4	3.6	13
Marathon	123.0	123.0	2.1	4	49.4	3.6	13
Northern Tier Energy	89.5	89.5	1.5	2	49.4	3.6	13
OK Dept. of Transportation	31.1	31.1	0.5	0	31.1	2.3	5
Osage	168.0	168.0	2.8	8	49.4	3.6	13
PBF Energy	160.0	160.0	2.7	7	49.4	3.6	13
Phillips 66	200.0	200.0	3.4	11	49.4	3.6	13
Plains	110.0	110.0	1.9	3	49.4	3.6	13
Silver Eagle	18.0	18.0	0.3	0	18.0	1.3	2
Sinclair	98.5	98.5	1.7	3	49.4	3.6	13
Suncor	240.0	240.0	4.1	16	49.4	3.6	13
Tesoro	127.5	127.5	2.2	5	49.4	3.6	13
TransCanada	700.0	700.0	11.8	140	49.4	3.6	13
Truck-to-Barge	12.0	12.0	0.2	*	12.0	0.9	*
Valero	477.0	477.0	8.1	65	49.4	3.6	13
WRB Refining	460.0	460.0	7.8	61	49.4	3.6	13
Wyoming Refining	14.0	14.0	0.2	0	14.0	1.0	1
Total	5,913.4	5,913.4	100.0		1,378.9	100.0	

Rocky Mountain Crude Oil Production (MBD)	1,378.9	Effective Capacity HHI	575		Adjusted Capacity HHI	340
		Excess Capacity Ratio	4.29		Average HHI	457

Refineries were selected for inclusion as follows: (1) Rocky Mountain Area refineries that process Rocky Mountain crude oil (see Table A.7); (2) Upper Midwest Area refineries where Rocky Mountain crude oil is a competitive alternative (see Table A.9); (3) refineries in other areas that are documented to process Rocky Mountain crude oil delivered by rail (see Table A.10).

Note: * Sum of extremely small shares squared, which essentially equals zero.

1

Table G.8 - Page 2 of 2
Capacity Based HHI for Rocky Mountain Production Area -
U.S. Upper Midwest Refineries Limited to Those Whose Use of Western Canada Crude Oil is 40% or More of Crude Oil Inputs

Part II. Description of the Individual Competing Facilities

Company	Asset	Type	Location	Capacity as of Second Half of 2014 (MBD)
Seaway	Seaway	Pipeline		420.0
Enbridge	Flanagan South Lease	Pipeline		430.0
Antelope Refining LLC	Antelope Refining	Refinery	Douglas, WY	3.8
Big West	Big West	Refinery	North Salt Lake, UT	30.5
BP-Husky	BP-Husky	Refinery	Toledo, OH	135.0
BP	BP Products North	Refinery	Whiting, IN	413.5
Calumet	Calumet Lubricants	Refinery	Superior, WI	38.0
Chevron	Chevron	Refinery	Salt Lake City, UT	45.0
CHS	Cenex	Refinery	Laurel, MT	59.6
Citgo	PDV Midwest Refining	Refinery	Lemont, IL	172.0
CVR	Wynnewood Refining	Refinery	Wynnewood, OK	70.0
ExxonMobil	ExxonMobil	Refinery	Billings, MT	60.0
HollyFrontier	Navajo Refining	Refinery	Artesia, NM	105.0
HollyFrontier	Frontier Refining	Refinery	Cheyenne, WY	47.0
HollyFrontier	HollyFrontier	Refinery	Tulsa, OK (Tulsa East)	70.3
HollyFrontier	HollyFrontier	Refinery	Tulsa, OK (Tulsa West)	85.0
HollyFrontier	HollyFrontier	Refinery	Woods Cross, UT	25.1
Husky	Lima Refining	Refinery	Lima, OH	155.0
Irving Oil	Irving Oil	Refinery	St. John, NB	250.0
Koch Refining	Flint Hills Resources	Refinery	Pine Bend, MN	270.0
Marathon	Marathon	Refinery	Detroit, MI	123.0
Northern Tier Energy	Northern Tier Energy	Refinery	St. Paul Park, MN	89.5
OK Dept. of Transportation	Farmrail, Sayre, OK	Crude-by-Rail Facility	Farmrail, Sayre, OK	31.1
Osage	Osage	Pipeline		168.0
PBF Energy	Toledo Refining	Refinery	Toledo, OH	160.0
Phillips 66	Phillips 66	Refinery	Ponca City, OK	200.0
Plains	Cushing to Broome	Pipeline		110.0
Silver Eagle	Silver Eagle	Refinery	Evanston, WY	3.0
Silver Eagle	Silver Eagle	Refinery	Woods Cross, UT	15.0
Sinclair	Little America	Refinery	Casper, WY	24.5
Sinclair	Sinclair	Refinery	Sinclair, WY	74.0
Suncor	Suncor	Refinery	Commerce City East, CO	36.0
Suncor	Suncor	Refinery	Commerce City West, CO	67.0
Suncor	Suncor Energy	Refinery	Montreal, QC	137.0
Tesoro	Tesoro	Refinery	Mandan, ND	70.0
Tesoro	Tesoro	Refinery	Salt Lake City, UT	57.5
TransCanada	Marketlink	Pipeline		700.0
Truck-to-Barge	Truck-to-Barge	Truck-To-Barge Loading Facility	Truck from Cushing to Catoosa and Barge from Catoosa to the Gulf Coast	12.0
Valero	Valero	Refinery	Ardmore, OK	86.0
Valero	Utramar	Refinery	Levis, QC	235.0
Valero	Valero	Refinery	Sunray (McKee), TX	156.0
WRB Refining	WRB Refining	Refinery	Borger, TX	146.0
WRB Refining	WRB Refining	Refinery	Wood River, IL	314.0
Wyoming Refining	Wyoming Refining	Refinery	New Castle, WY	14.0
			Total	5,913.4

1 Source: Tables A.7, A.9, A.10, and D.2.

Table G.9
Estimation of Deliveries and Receipts After Seaway Loop Operation

	Deliveries	Receipts
May 2013 - April 2014 Seaway Volumes (MBD)	302.8	302.9
Seaway Capacity Before Loop Operation (MBD)	400.0	400.0
Seaway Capacity Factor Before Loop Operation	75.7%	75.7%
Seaway Capacity After Loop Operation (MBD)	850.0	850.0
Anticipated Total Volumes After Loop Operation (MBD)	643.5	643.7
Capacity Attributable to Seaway After Loop Operation (MBD)	420.0	420.0
% of Volumes Attributable to Seaway After Loop Operation (MBD)	49.4%	49.4%
Volumes Attributable to Seaway After Loop Operation (MBD)	318.0	318.0

Source: Table C.1.

Table G.10
Excess Capacity Held by Others Ratio in the Cushing Origin Market, Western Canada Production Area, and Rocky Mountain Production Area

	Total Effective Capacity	Crude Oil Supply	Excess Effective Capacity	Seaway Effective Capacity	Seaway's Receipts	Seaway Excess Effective Capacity	Excess Effective Capacity Held by Seaway Competitors	Excess Capacity Held by Others Ratio
				(MBD)				
I. Cushing Origin Market								
Local Crude Oil Production Only	4,817.4	1,634.6	3,182.8	420.0	318.0	102.0	3,080.8	9.7
Local Crude Oil Production Plus Pipeline Deliveries of Crude Oil	4,817.4	2,998.1	1,819.4	420.0	318.0	102.0	1,717.4	5.4
II. Western Canada Production Area								
A. Including U.S. Refineries Who Use Some Western Canada Crude Oil	10,590.0	3,219.1	7,370.9	420.0	318.0	102.0	7,269.0	22.9
B. Including U.S. Refineries Whose Use of Western Canada Crude Oil is 40% or More of Crude Oil Input	6,118.1	3,219.1	2,899.0	420.0	318.0	102.0	2,797.1	8.8
III. Rocky Mountain Production Area								
A. U.S. Upper Midwest Refineries Limited to Those Who Use Some Western Canada Crude Oil	6,447.4	1,378.9	5,068.5	420.0	318.0	102.0	4,966.5	15.6
B. U.S. Upper Midwest Refineries Limited to Those Whose Use of Western Canada Crude Oil is 40% or More of Crude Oil Inputs	5,913.4	1,378.9	4,534.5	420.0	318.0	102.0	4,432.5	13.9

Source: Tables C.1, G.1, G.3, G.5, G.6, G.7, and G.8.

Table G.11
Seaway's Second Half of 2014 Receipt-Based Market Share in the Cushing Origin Market, Western Canada Production Area, and Rocky Mountain Production Area

I. Cushing Origin Market	
A. Based on Local Crude Oil Production Only	
Seaway's Receipts (MBD)	318.0
Local Crude Oil Production (MBD)	1,634.6
Seaway Receipt-Based Market Share	19.5%
B. Based on Local Crude Oil Production Plus Pipeline Deliveries of Crude Oil	
Seaway's Receipts (MBD)	318.0
Local Crude Oil Production and Crude Oil Deliveries (MBD)	2,998.1
Seaway Receipt-Based Market Share	10.6%
II. Western Canada Production Area	
A. Based on Western Canada Crude Oil Production Only	
Seaway's Receipts (MBD)	318.0
Western Canada Crude Oil Production (MBD)	3,219.1
Seaway Receipt-Based Market Share	9.9%
B. Based on Cushing Origin Market and Western Canada Crude Oil Production	
Seaway's Receipts (MBD)	318.0
Cushing Origin Market and Western Canada Crude Oil Production (MBD)	4,853.7
Seaway Receipt-Based Market Share	6.6%
III. Rocky Mountain Production Area	
A. Based on Rocky Mountain Crude Oil Production Only	
Seaway's Receipts (MBD)	318.0
Rocky Mountain Crude Oil Production (MBD)	1,378.9
Seaway Receipt-Based Market Share	23.1%
B. Based on Cushing Origin Market and Rocky Mountain Crude Oil Production	
Seaway's Receipts (MBD)	318.0
Cushing Origin Market and Rocky Mountain Crude Oil Production (MBD)	3,013.5
Seaway Receipt-Based Market Share	10.6%

Sources: Tables C.1, G.1, G.3, G.5, G.7, and G.9.

Table G.12 - Page 1 of 2
Capacity Based HHI [1] for the Gulf Coast Area Definition of the Destination Market - Second Half of 2014
Rail Unloading Capacity Assigned to Connected Rail Carrier

Part I. HHI Results

Company	Unadjusted Capacities (MBD)	Capacity Share (%)	HHI Contribution
Col. 1	Col. 2	Col. 3	Col. 4
Seaway	420.0	4.0	16
Enbridge	430.0	4.1	16
BridgeTex	300.0	2.8	8
Burlington Northern Railroad	487.4	4.6	21
Canadian National Railway	120.0	1.1	1
Enterprise	290.0	2.7	7
ExxonMobil	128.0	1.2	1
Genesis Energy	150.0	1.4	2
Harvest Pipeline	100.0	0.9	1
Kinder Morgan	300.0	2.8	8
Kinder Morgan/Magellan	100.0	0.9	1
Koch	105.0	1.0	1
Magellan Midstream	275.0	2.6	7
Nustar	100.0	0.9	1
Plains/Enterprise	350.0	3.3	11
Sunoco Logistics	285.0	2.7	7
TransCanada	700.0	6.6	44
Union Pacific Railroad	106.0	1.0	1
Local Crude Oil Production	1,567.3	14.8	* [2]
Waterborne Crude Oil Deliveries	4,282.3	40.4	* [2]
Total	10,595.9	100.0	

Refinery Crude Oil Capacity (MBD)	7,357.0

Unadjusted Capacity HHI	155
Excess Capacity Ratio	1.44

Note:
[1] Due to the large volume of waterborne deliveries relative to the refinery crude oil inputs, the effective capacity HHI is the same as the unadjusted capacity HHI, and the adjusted capacity HHI is extremely small. Thus, only the unadjusted capacity HHI is shown in the table.
[2] Sum of extremely small shares squared, which essentially equals zero.

1 Sources: Tables D.1, D.6, D.7, and D.9.

Table G.12 - Page 2 of 2
Capacity Based HHI [1] for the Gulf Coast Area Definition of the Destination Market - Second Half of 2014
Rail Unloading Capacity Assigned to Connected Rail Carrier

Part II. Description of the Individual Competing Facilities

Company	Asset	Type	Location	Capacity as of Second Half of 2014 (MBD)
Seaway	Seaway	Crude Oil Pipeline	Cushing, OK/ Houston, TX, Beaumont/Port Arthur, TX	420.0
Enbridge	Flanagan South Lease	Crude Oil Pipeline	Cushing, OK/ Houston, TX, Beaumont/Port Arthur, TX	430.0
BridgeTex	BridgeTex	Crude Oil Pipeline	Colorado City, TX/Houston, TX	300.0
Burlington Northern Railroad	Burlington Northern Railroad	Crude-by-Rail Facility	Gulf Coast Destination Market	487.4
Canadian National Railway	Canadian National Railway	Crude-by-Rail Facility	Gulf Coast Destination Market	120.0
Enterprise	South System	Crude Oil Pipeline	Sealy, TX/Katy, TX	290.0
ExxonMobil	ExxonMobil Pegasus	Crude Oil Pipeline	Patoka, IL/Nederland, TX	96.0
ExxonMobil	ExxonMobil South Texas	Crude Oil Pipeline	Bee County TX/Corpus Christi, TX	32.0
Genesis Energy	Jay Pipeline System	Crude Oil Pipeline	Western Florida/Saraland, AL	150.0
Harvest Pipeline	Harvest Pipeline	Crude Oil Pipeline	Eagle Ford Counties, TX/Corpus Christi, TX	100.0
Kinder Morgan	Crude and Condensate	Crude Oil Pipeline	Helena, TX/Houston, TX	300.0
Kinder Morgan/Magellan	Double Eagle	Crude Oil Pipeline	Karnes and Gardendale TX/Three Rivers, TX	100.0
Koch	Koch	Crude Oil Pipeline	Bee County, TX/Corpus Christi, TX	30.0
Koch	Koch	Crude Oil Pipeline	Eagle Ford Counties, TX/Corpus Christi, TX	25.0
Koch	Arrowhead	Crude Oil Pipeline	Western Eagle Ford Counties, TX/Corpus Christi, TX	50.0
Magellan Midstream	Longhorn	Crude Oil Pipeline	Crane, TX/Houston, TX	275.0
Nustar	TexStar Pipeline	Crude Oil Pipeline	Frio, La Salle Counties, TX/Oakville, TX	100.0
Plains/Enterprise	Eagle Ford JV	Crude Oil Pipeline	Gardendale, TX/Corpus Christi, TX	350.0
Sunoco Logistics	Eaglebine Express	Crude Oil Pipeline	Hearne, TX/ Nederland, TX	60.0
Sunoco Logistics	Permian Express I	Crude Oil Pipeline	Wichita Falls, TX/Nederland, TX	150.0
Sunoco Logistics	Sunoco Logistics	Crude Oil Pipeline	Kilgore, TX/Houston, TX	35.0
Sunoco Logistics	West Texas Gulf	Crude Oil Pipeline	Colorado City, TX/Houston, TX	40.0
TransCanada	Cushing Marketlink	Crude Oil Pipeline	Cushing, OK/ Port Arthur, TX	700.0
Union Pacific Railroad	Union Pacific Railroad	Crude-by-Rail Facility	Gulf Coast Destination Market	106.0
Waterborne Crude Oil Deliveries				4,282.3
Local Crude Oil Production				1,567.3
Total				10,595.9

1 Sources: Tables D.1, D.6, and D.9.

Table G.13 - Page 1 of 2
Capacity Based HHI [1] for the Gulf Coast Area Definition of the Destination Market - Second Half of 2014
Rail Unloading Capacity Assigned to Terminal Owners

Part I. HHI Results

Company	Unadjusted Capacities (MBD)	Capacity Share (%)	HHI Contribution
Col. 1	Col. 2	Col. 3	Col. 4
Seaway	420.0	4.0	16
Enbridge	430.0	4.1	16
Arc Terminals LP	75.0	0.7	1
Alon USA	6.0	0.1	0
BridgeTex	300.0	2.8	8
Bulk Resources	70.0	0.7	0
Canal Refining	4.5	0.0	0
Citgo	20.0	0.2	0
Crosstex Energy	15.0	0.1	0
Enterprise	290.0	2.7	7
ExxonMobil	128.0	1.2	1
Genesis Energy	170.0	1.6	3
GT Logistics	100.0	0.9	1
Harvest Pipeline	100.0	0.9	1
Kinder Morgan	300.0	2.8	8
Kinder Morgan/Magellan	100.0	0.9	1
Koch	105.0	1.0	1
LBC Tank Terminals	10.0	0.1	0
Magellan Midstream	275.0	2.6	7
Nustar	200.0	1.9	4
Plains All American	140.0	1.3	2
Plains/Enterprise	350.0	3.3	11
Sunoco Logistics	306.5	2.9	8
Texas International Terminals	90.0	0.8	1
TransCanada	700.0	6.6	44
Transmontaigne	41.4	0.4	0
Local Crude Oil Production	1,567.3	14.8	* [2]
Waterborne Crude Oil Deliveries	4,282.3	40.4	* [2]
Total	10,595.9	100.0	

Refinery Crude Oil Capacity (MBD)	7,357.0	Unadjusted Capacity HHI	140
		Excess Capacity Ratio	1.44

Note:
[1] Due to the large volume of waterborne deliveries relative to the refinery crude oil inputs, the effective capacity HHI is the same as the unadjusted capacity HHI, and the adjusted capacity HHI is extremely small. Thus, only the unadjusted capacity HHI is shown in the table.
[2] Sum of extremely small shares squared, which essentially equals zero.

1 Sources: Tables D.1, D.6, D.7, and D.9.

Table G.13 - Page 2 of 2
Capacity Based HHI [1] for the Gulf Coast Area Definition of the Destination Market - Second Half of 2014
Rail Unloading Capacity Assigned to Terminal Owners

Part II. Description of the Individual Competing Facilities

Company	Asset	Type	Location	Capacity as of Second Half of 2014 (MBD)
Seaway	Seaway	Crude Oil Pipeline	Cushing, OK/ Houston, TX, Beaumont/Port Arthur, TX	420.0
Enbridge	Flanagan South Lease	Crude Oil Pipeline	Cushing, OK/ Houston, TX, Beaumont/Port Arthur, TX	430.0
Arc Terminals LP	Arc Terminals LP	Crude-by-Rail Facility	Mobile, AL	75.0
Alon USA	Alon USA	Crude-by-Rail Facility	Krotz Springs, LA	6.0
BridgeTex	BridgeTex	Crude Oil Pipeline	Colorado City, TX/Houston,	300.0
Bulk Resources	Murex	Crude-by-Rail Facility	Port of New Orleans, LA	70.0
Canal Refining	Canal Refining	Crude-by-Rail Facility	Lacassine, LA	4.5
Citgo	Citgo	Crude-by-Rail Facility	Lake Charles, LA	20.0
Crosstex Energy	Riverside Facility	Crude-by-Rail Facility	Geismar, LA	15.0
Enterprise	South System	Crude Oil Pipeline	Sealy, TX/Katy, TX	290.0
ExxonMobil	ExxonMobil Pegasus	Crude Oil Pipeline	Patoka, IL/Nederland, TX	96.0
ExxonMobil	ExxonMobil South Texas	Crude Oil Pipeline	Bee County TX/Corpus Christi, TX	32.0
Genesis Energy	Jay Pipeline System	Crude Oil Pipeline	Western Florida/Saraland, AL	150.0
Genesis Energy	Maryland Terminal	Crude-by-Rail Facility	Baton Rouge, LA	20.0
GT Logistics	GT Omni Port	Crude-by-Rail Facility	Port Arthur, TX	100.0
Harvest Pipeline	Harvest Pipeline	Crude Oil Pipeline	Eagle Ford Counties, TX/Corpus Christi, TX	100.0
Kinder Morgan	Crude and Condensate	Crude Oil Pipeline	Helena, TX/Houston, TX	300.0
Kinder Morgan/Magellan	Double Eagle	Crude Oil Pipeline	Karnes and Gardendale TX/Three Rivers, TX	100.0
Koch	Koch	Crude Oil Pipeline	Bee County, TX/Corpus Christi, TX	30.0
Koch	Koch	Crude Oil Pipeline	Eagle Ford Counties, TX/Corpus Christi, TX	25.0
Koch	Arrowhead	Crude Oil Pipeline	Western Eagle Ford Counties, TX/Corpus Christi, TX	50.0
LBC Tank Terminals	LBC Tank Terminals	Crude-by-Rail Facility	Geismar, LA	10.0
Magellan Midstream	Longhorn	Crude Oil Pipeline	Crane, TX/Houston, TX	275.0
Nustar	TexStar Pipeline	Crude Oil Pipeline	Frio, La Salle Counties, TX/Oakville, TX	100.0
NuStar	EOG	Crude-by-Rail Facility	St. James, LA	100.0
Plains All American	Plains All American	Crude-by-Rail Facility	St. James, LA	140.0
Plains/Enterprise	Eagle Ford JV	Crude Oil Pipeline	Gardendale, TX/Corpus Christi, TX	350.0
Sunoco Logistics	Sunoco Logistics	Crude-by-Rail Facility	Nederland, TX	21.5
Sunoco Logistics	Eaglebine Express	Crude Oil Pipeline	Hearne, TX/ Nederland, TX	60.0
Sunoco Logistics	Permian Express I	Crude Oil Pipeline	Wichita Falls, TX/Nederland, TX	150.0
Sunoco Logistics	Sunoco Logistics	Crude Oil Pipeline	Kilgore, TX/Houston, TX	35.0
Sunoco Logistics	West Texas Gulf	Crude Oil Pipeline	Colorado City, TX/Houston, TX	40.0
Texas International Terminals	Texas International Terminals	Crude-by-Rail Facility	Galveston, TX	90.0
TransCanada	Cushing Marketlink	Crude Oil Pipeline	Cushing, OK/ Port Arthur, TX	700.0
Transmontaigne	Transmontaigne	Crude-by-Rail Facility	Brownsville, TX	41.4
Waterborne Crude Oil Deliveries				4,282.3
Local Crude Oil Production				1,567.3
Total				10,595.9

1 Sources: Tables D.1, D.6, and D.9.

Table G.14 - Page 1 of 2
Capacity Based HHI [1] for the Houston to Lake Charles Area Definition of the Destination Market - Second Half of 2014
Rail Unloading Capacity Assigned to Connected Rail Carrier

Part I. HHI Results

Company	Unadjusted Capacities (MBD)	Capacity Share (%)	HHI Contribution
Col. 1	Col. 2	Col. 3	Col. 4
Seaway	420.0	5.8	33
Enbridge	430.0	5.9	35
BridgeTex	300.0	4.1	17
Burlington Northern Railroad	131.5	1.8	3
Enterprise	290.0	4.0	16
Enterprise and Genesis Energy	500.0	6.9	47
ExxonMobil	96.0	1.3	2
Kinder Morgan	300.0	4.1	17
Magellan Midstream	275.0	3.8	14
Phillips 66	27.0	0.4	0
Sunoco Logistics	285.0	3.9	15
TransCanada	700.0	9.6	92
Union Pacific Railroad	100.0	1.4	2
Local Crude Oil Production	310.7	4.3	* [2]
Waterborne Crude Oil Deliveries	3,132.7	42.9	* [2]
Total	7,297.9	100.0	

Refinery Crude Oil Capacity (MBD)	4,123.6	Unadjusted Capacity HHI	293
		Excess Capacity Ratio	1.77

Note:
[1] Due to the large volume of waterborne deliveries relative to the refinery crude oil inputs, the effective capacity HHI is the same as the unadjusted capacity HHI, and the adjusted capacity HHI is extremely small. Thus, only the unadjusted capacity HHI is shown in the table.
[2] Sum of extremely small shares squared, which essentially equals zero.

1 Sources: Tables D.1, D.6, D.7, and D.9.

Table G.14 - Page 2 of 2
Capacity Based HHI [1] for the Houston to Lake Charles Area Definition of the Destination Market - Second Half of 2014
Rail Unloading Capacity Assigned to Connected Rail Carrier

Part II. Description of the Individual Competing Facilities

Company	Asset	Type	Location	Capacity as of Second Half of 2014 (MBD)
Seaway	Seaway	Crude Oil Pipeline	Cushing, OK/ Houston, TX, Beaumont/Port Arthur, TX	420.0
Enbridge	Flanagan South Lease	Crude Oil Pipeline	Cushing, OK/ Houston, TX, Beaumont/Port Arthur, TX	430.0
BridgeTex	BridgeTex	Crude Oil Pipeline	Colorado City, TX/Houston, TX	300.0
Burlington Northern Railroad	Burlington Northern Railroad	Crude-by-Rail Facility	Gulf Coast Destination Market	131.5
Enterprise	South System	Crude Oil Pipeline	Sealy, TX/Katy, TX	290.0
Enterprise and Genesis Energy	Cameron Highway Oil Pipeline System ("CHOPS")	Crude Oil Pipeline	Eastern Offshore Louisiana/Texas City, TX	500.0
ExxonMobil	ExxonMobil Pegasus	Crude Oil Pipeline	Patoka, IL/Nederland, TX	96.0
Kinder Morgan	Crude and Condensate	Crude Oil Pipeline	Helena, TX/Houston, TX	300.0
Magellan Midstream	Longhorn	Crude Oil Pipeline	Crane, TX/Houston, TX	275.0
Phillips 66	Louisiana Local	Crude Oil Pipeline	Central Louisiana/Lake Charles, LA	27.0
Sunoco Logistics	Eaglebine Express	Crude Oil Pipeline	Hearne, TX/ Nederland, TX	60.0
Sunoco Logistics	Permian Express I	Crude Oil Pipeline	Wichita Falls, TX/Nederland, TX	150.0
Sunoco Logistics	West Texas Gulf	Crude Oil Pipeline	Colorado City, TX/Houston, TX	40.0
Sunoco Logistics	Sunoco Logistics	Crude Oil Pipeline	Kilgore, TX/Houston, TX	35.0
TransCanada	Cushing Marketlink	Crude Oil Pipeline	Cushing, OK/ Port Arthur, TX	700.0
Union Pacific Railroad	Union Pacific Railroad	Crude-by-Rail Facility	Gulf Coast Destination Market	100.0
Waterborne Crude Oil Deliveries				3,132.7
Local Crude Oil Production				310.7
Total				7,297.9

Sources: Tables D.1, D.6, and D.9.

Table G.15 - Page 1 of 2
Capacity Based HHI [1] for the Houston to Lake Charles Area Definition of the Destination Market - Second Half of 2014
Rail Unloading Capacity Assigned to Terminal Owners

Part I. HHI Results

Company	Unadjusted Capacities (MBD)	Capacity Share (%)	HHI Contribution
Col. 1	Col. 2	Col. 3	Col. 4
Seaway	420.0	5.8	33
Enbridge	430.0	5.9	35
BridgeTex	300.0	4.1	17
Citgo	20.0	0.3	0
Enterprise	290.0	4.0	16
Enterprise and Genesis Energy	500.0	6.9	47
ExxonMobil	96.0	1.3	2
GT Logistics	100.0	1.4	2
Kinder Morgan	300.0	4.1	17
Magellan Midstream	275.0	3.8	14
Phillips 66	27.0	0.4	0
Sunoco Logistics	306.5	4.2	18
Texas International Terminals	90.0	1.2	2
TransCanada	700.0	9.6	92
Local Crude Oil Production	310.7	4.3	* [2]
Waterborne Crude Oil Deliveries	3,132.7	42.9	* [2]
Total	7,297.9	100.0	

Refinery Crude Oil Capacity (MBD)	4,123.6	Unadjusted Capacity HHI	294
		Excess Capacity Ratio	1.77

Note:
[1] Due to the large volume of waterborne deliveries relative to the refinery crude oil inputs, the effective capacity HHI is the same as the unadjusted capacity HHI, and the adjusted capacity HHI is extremely small. Thus, only the unadjusted capacity HHI is shown in the table.
[2] Sum of extremely small shares squared, which essentially equals zero.

1 Sources: Tables D.1, D.6, D.7, and D.9.

Table G.15 - Page 2 of 2
Capacity Based HHI [1] for the Houston to Lake Charles Area Definition of the Destination Market - Second Half of 2014
Rail Unloading Capacity Assigned to Terminal Owners

Part II. Description of the Individual Competing Facilities

Company	Asset	Type	Location	Capacity as of Second Half of 2014 (MBD)
Seaway	Seaway	Crude Oil Pipeline	Cushing, OK/ Houston, TX, Beaumont/Port Arthur, TX	420.0
Enbridge	Flanagan South Lease	Crude Oil Pipeline	Cushing, OK/ Houston, TX, Beaumont/Port Arthur, TX	430.0
BridgeTex	BridgeTex	Crude Oil Pipeline	Colorado City, TX/Houston, TX	300.0
Citgo	Citgo	Crude-by-Rail Facility	Lake Charles, LA	20.0
Enterprise	South System	Crude Oil Pipeline	Sealy, TX/Katy, TX	290.0
Enterprise and Genesis Energy	Cameron Highway Oil Pipeline System ("CHOPS")	Crude Oil Pipeline	Eastern Offshore Louisiana/Texas City, TX	500.0
ExxonMobil	ExxonMobil Pegasus	Crude Oil Pipeline	Patoka, IL/Nederland, TX	96.0
GT Logistics	GT Omni Port	Crude-by-Rail Facility	Port Arthur, TX	100.0
Kinder Morgan	Crude and Condensate	Crude Oil Pipeline	Helena, TX/Houston, TX	300.0
Magellan Midstream	Longhorn	Crude Oil Pipeline	Crane, TX/Houston, TX	275.0
Phillips 66	Louisiana Local	Crude Oil Pipeline	Central Louisiana/Lake Charles, LA	27.0
Sunoco Logistics	Sunoco Logistics	Crude-by-Rail Facility	Nederland, TX	21.5
Sunoco Logistics	Eaglebine Express	Crude Oil Pipeline	Hearne, TX/ Nederland, TX	60.0
Sunoco Logistics	Permian Express I	Crude Oil Pipeline	Wichita Falls, TX/Nederland, TX	150.0
Sunoco Logistics	West Texas Gulf	Crude Oil Pipeline	Colorado City, TX/Houston, TX	40.0
Sunoco Logistics	Sunoco Logistics	Crude Oil Pipeline	Kilgore, TX/Houston, TX	35.0
Texas International Terminals	Texas International Terminals	Crude-by-Rail Facility	Galveston, TX	90.0
TransCanada	Cushing Marketlink	Crude Oil Pipeline	Cushing, OK/ Port Arthur, TX	700.0
Waterborne Crude Oil Deliveries				3,132.7
Local Crude Oil Production				310.7
Total				7,297.9

1 Sources: Tables D.1, D.6, and D.9.

Table G.16
Excess Capacity Held by Others in Seaway's Destination Market

	Destination Market Definition	
	Gulf Coast Area	Houston to Lake Charles Area
Total Unadjusted Capacity (MBD)	10,595.9	7,297.9
Refinery Crude Oil Capacity (MBD)	7,357.0	4,123.6
Excess Unadjusted Capacity	3,238.9	3,174.3
Seaway Unadjusted Capacity (MBD)	420.0	420.0
Seaway's Deliveries (MBD)	318.0	318.0
Seaway Excess Unadjusted Capacity	102.0	102.0
Excess Unadjusted Capacity Held by Seaway Competitors (MBD)	3,136.9	3,072.3
Excess Capacity Held by Others Ratio	9.9	9.7

Sources: Tables C.1, D.7, G.9, G.12, and G.14.

Table G.17
Seaway's Delivery-Based Market Shares in Its Destination Market

	Destination Market Definition	
	Gulf Coast Area	Houston to Lake Charles Area
Seaway's Deliveries (MBD)	318.0	318.0
Estimated Refinery Use of Crude Oil (MBD)	7,357.0	4,123.6
Seaway Delivery-Based Market Share	4.3%	7.7%

Sources: Tables C.1, D.7, and G.9.

Table G.18
Calculation of Net Crude Oil Production and Waterborne Deliveries for Seaway Pipeline's Destination Market

	Destination Market Definition	
	Gulf Coast Area	Houston to Lake Charles Area
Local Crude Oil Production and Waterborne Receipts (MBD)	5,849.5	3,443.4
Waterborne Shipments Out of the Market and Volumes on Outbound Crude Oil Pipelines (MBD)	863.4	400.4
Net Local Crude Oil Production and Waterborne Deliveries (MBD)	4,986.1	3,043.0

Sources: Tables D.1, D.6, D.9, and D.10.

Table G.19 - Page 1 of 2
Alternative Capacity Based HHI [1] for the Gulf Coast Area Definition of the Destination Market - Second Half of 2014 - Based on Net Local Crude Oil Production and Waterborne Deliveries
Rail Unloading Capacity Assigned to Connected Rail Carrier

Part I. HHI Results

Company	Unadjusted Capacities (MBD)	Capacity Share (%)	HHI Contribution
Col. 1	Col. 2	Col. 3	Col. 4
Seaway	420.0	4.3	19
Enbridge	430.0	4.4	20
BridgeTex	300.0	3.1	10
Burlington Northern Railroad	487.4	5.0	25
Canadian National Railway	120.0	1.2	2
Enterprise	290.0	3.0	9
ExxonMobil	128.0	1.3	2
Genesis Energy	150.0	1.5	2
Harvest Pipeline	100.0	1.0	1
Kinder Morgan	300.0	3.1	10
Kinder Morgan/Magellan	100.0	1.0	1
Koch	105.0	1.1	1
Magellan Midstream	275.0	2.8	8
Nustar	100.0	1.0	1
Plains/Enterprise	350.0	3.6	13
Sunoco Logistics	285.0	2.9	9
TransCanada	700.0	7.2	52
Union Pacific Railroad	106.0	1.1	1
Net Local Crude Oil Production and Waterborne Deliveries [2]	4,986.1	51.2	* [3]
Total	9,732.5	100.0	

Refinery Crude Oil Capacity (MBD)	7,357.0	Unadjusted Capacity HHI	183
		Excess Capacity Ratio	1.32

Note:
[1] Due to the large volume of waterborne deliveries relative to the refinery crude oil inputs, the effective capacity HHI is the same as the unadjusted capacity HHI, and the adjusted capacity HHI is extremely small. Thus, only the unadjusted capacity HHI is shown in the table.
[2] Net crude oil production and waterborne deliveries equals local crude oil production plus waterborne deliveries less waterborne shipments out of the market less identifiable pipeline shipments out of the market.
[3] Sum of extremely small shares squared, which essentially equals zero.

1 Sources: Tables D.1, D.6, D.7, D.9, and G.18.

Table G.19 - Page 2 of 2
Alternative Capacity Based HHI [1] for the Gulf Coast Area Definition of the Destination Market - Second Half of 2014
- Based on Net Local Crude Oil Production and Waterborne Deliveries
Rail Unloading Capacity Assigned to Connected Rail Carrier

Part II. Description of the Individual Competing Facilities

Company	Asset	Type	Location	Capacity as of Second Half of 2014 (MBD)
Seaway	Seaway	Crude Oil Pipeline	Cushing, OK/ Houston, TX, Beaumont/Port Arthur, TX	420.0
Enbridge	Flanagan South Lease	Crude Oil Pipeline	Cushing, OK/ Houston, TX, Beaumont/Port Arthur, TX	430.0
BridgeTex	BridgeTex	Crude Oil Pipeline	Colorado City, TX/Houston, TX	300.0
Burlington Northern Railroad	Burlington Northern Railroad	Crude-by-Rail Facility	Gulf Coast Destination Market	487.4
Canadian National Railway	Canadian National Railway	Crude-by-Rail Facility	Gulf Coast Destination Market	120.0
Enterprise	South System	Crude Oil Pipeline	Sealy, TX/Katy, TX	290.0
ExxonMobil	ExxonMobil Pegasus	Crude Oil Pipeline	Patoka, IL/Nederland, TX	96.0
ExxonMobil	ExxonMobil South Texas	Crude Oil Pipeline	Bee County TX/Corpus Christi, TX	32.0
Genesis Energy	Jay Pipeline System	Crude Oil Pipeline	Western Florida/Saraland, AL	150.0
Harvest Pipeline	Harvest Pipeline	Crude Oil Pipeline	Eagle Ford Counties, TX/Corpus Christi, TX	100.0
Kinder Morgan	Crude and Condensate	Crude Oil Pipeline	Helena, TX/Houston, TX	300.0
Kinder Morgan/Magellan	Double Eagle	Crude Oil Pipeline	Karnes and Gardendale TX/Three Rivers, TX	100.0
Koch	Koch	Crude Oil Pipeline	Bee County, TX/Corpus Christi, TX	30.0
Koch	Koch	Crude Oil Pipeline	Eagle Ford Counties, TX/Corpus Christi, TX	25.0
Koch	Arrowhead	Crude Oil Pipeline	Western Eagle Ford Counties, TX/Corpus Christi, TX	50.0
Magellan Midstream	Longhorn	Crude Oil Pipeline	Crane, TX/Houston, TX	275.0
Nustar	TexStar Pipeline	Crude Oil Pipeline	Frio, La Salle Counties, TX/Oakville, TX	100.0
Plains/Enterprise	Eagle Ford JV	Crude Oil Pipeline	Gardendale, TX/Corpus Christi, TX	350.0
Sunoco Logistics	Eaglebine Express	Crude Oil Pipeline	Hearne, TX/ Nederland, TX	60.0
Sunoco Logistics	Permian Express I	Crude Oil Pipeline	Wichita Falls, TX/Nederland, TX	150.0
Sunoco Logistics	Sunoco Logistics	Crude Oil Pipeline	Kilgore, TX/Houston, TX	35.0
Sunoco Logistics	West Texas Gulf	Crude Oil Pipeline	Colorado City, TX/Houston, TX	40.0
TransCanada	Cushing Marketlink	Crude Oil Pipeline	Cushing, OK/ Port Arthur, TX	700.0
Union Pacific Railroad	Union Pacific Railroad	Crude-by-Rail Facility	Gulf Coast Destination Market	106.0
Net Local Crude Oil Production and Waterborne Deliveries				4,986.1
Total				9,732.5

1 Sources: Tables D.1, D.6, D.9, and G. 18.

Table G.20 - Page 1 of 2
Alternative Capacity Based HHI [1] for the Gulf Coast Area Definition of the Destination Market - Second Half of 2014 - Based on Net Local Crude Oil Production and Waterborne Deliveries
Rail Unloading Capacity Assigned to Terminal Owners

Part I. HHI Results

Company	Unadjusted Capacities (MBD)	Capacity Share (%)	HHI Contribution
Col. 1	Col. 2	Col. 3	Col. 4
Seaway	420.0	4.3	19
Enbridge	430.0	4.4	20
Arc Terminals LP	75.0	0.8	1
Alon USA	6.0	0.1	0
BridgeTex	300.0	3.1	10
Bulk Resources	70.0	0.7	1
Canal Refining	4.5	0.0	0
Citgo	20.0	0.2	0
Crosstex Energy	15.0	0.2	0
Enterprise	290.0	3.0	9
ExxonMobil	128.0	1.3	2
Genesis Energy	170.0	1.7	3
GT Logistics	100.0	1.0	1
Harvest Pipeline	100.0	1.0	1
Kinder Morgan	300.0	3.1	10
Kinder Morgan/Magellan	100.0	1.0	1
Koch	105.0	1.1	1
LBC Tank Terminals	10.0	0.1	0
Magellan Midstream	275.0	2.8	8
Nustar	200.0	2.1	4
Plains All American	140.0	1.4	2
Plains/Enterprise	350.0	3.6	13
Sunoco Logistics	306.5	3.1	10
Texas International Terminals	90.0	0.9	1
TransCanada	700.0	7.2	52
Transmontaigne	41.4	0.4	0
Net Local Crude Oil Production and Waterborne Deliveries [2]	4,986.1	51.2	* [3]
Total	9,732.5	100.0	

Refinery Crude Oil Capacity (MBD)	7,357.0	Unadjusted Capacity HHI	166
		Excess Capacity Ratio	1.32

Note:
[1] Due to the large volume of waterborne deliveries relative to the refinery crude oil inputs, the effective capacity HHI is the same as the unadjusted capacity HHI, and the adjusted capacity HHI is extremely small. Thus, only the unadjusted capacity HHI is shown in the table.
[2] Net crude oil production and waterborne deliveries equals local crude oil production plus waterborne deliveries less waterborne shipments out of the market less identifiable pipeline shipments out of the market.
[3] Sum of extremely small shares squared, which essentially equals zero.

1 Sources: Tables D.1, D.6, D.7, D.9, and G.18.

Table G.20 - Page 2 of 2
Alternative Capacity Based HHI [1] for the Gulf Coast Area Definition of the Destination Market - Second Half of 2014
- Based on Net Local Crude Oil Production and Waterborne Deliveries
Rail Unloading Capacity Assigned to Terminal Owners

Part II. Description of the Individual Competing Facilities

Company	Asset	Type	Location	Capacity as of Second Half of 2014 (MBD)
Seaway	Seaway	Crude Oil Pipeline	Cushing, OK/ Houston, TX, Beaumont/Port Arthur, TX	420.0
Enbridge	Flanagan South Lease	Crude Oil Pipeline	Cushing, OK/ Houston, TX, Beaumont/Port Arthur, TX	430.0
Arc Terminals LP	Arc Terminals LP	Crude-by-Rail Facility	Mobile, AL	75.0
Alon USA	Alon USA	Crude-by-Rail Facility	Krotz Springs, LA	6.0
BridgeTex	BridgeTex	Crude Oil Pipeline	Colorado City, TX/Houston,	300.0
Bulk Resources	Murex	Crude-by-Rail Facility	Port of New Orleans, LA	70.0
Canal Refining	Canal Refining	Crude-by-Rail Facility	Lacassine, LA	4.5
Citgo	Citgo	Crude-by-Rail Facility	Lake Charles, LA	20.0
Crosstex Energy	Riverside Facility	Crude-by-Rail Facility	Geismar, LA	15.0
Enterprise	South System	Crude Oil Pipeline	Sealy, TX/Katy, TX	290.0
ExxonMobil	ExxonMobil Pegasus	Crude Oil Pipeline	Patoka, IL/Nederland, TX	96.0
ExxonMobil	ExxonMobil South Texas	Crude Oil Pipeline	Bee County TX/Corpus Christi, TX	32.0
Genesis Energy	Jay Pipeline System	Crude Oil Pipeline	Western Florida/Saraland, AL	150.0
Genesis Energy	Maryland Terminal	Crude-by-Rail Facility	Baton Rouge, LA	20.0
GT Logistics	GT Omni Port	Crude-by-Rail Facility	Port Arthur, TX	100.0
Harvest Pipeline	Harvest Pipeline	Crude Oil Pipeline	Eagle Ford Counties, TX/Corpus Christi, TX	100.0
Kinder Morgan	Crude and Condensate	Crude Oil Pipeline	Helena, TX/Houston, TX	300.0
Kinder Morgan/Magellan	Double Eagle	Crude Oil Pipeline	Karnes and Gardendale TX/Three Rivers, TX	100.0
Koch	Koch	Crude Oil Pipeline	Bee County, TX/Corpus Christi, TX	30.0
Koch	Koch	Crude Oil Pipeline	Eagle Ford Counties, TX/Corpus Christi, TX	25.0
Koch	Arrowhead	Crude Oil Pipeline	Western Eagle Ford Counties, TX/Corpus Christi, TX	50.0
LBC Tank Terminals	LBC Tank Terminals	Crude-by-Rail Facility	Geismar, LA	10.0
Magellan Midstream	Longhorn	Crude Oil Pipeline	Crane, TX/Houston, TX	275.0
Nustar	TexStar Pipeline	Crude Oil Pipeline	Frio, La Salle Counties, TX/Oakville, TX	100.0
NuStar	EOG	Crude-by-Rail Facility	St. James, LA	100.0
Plains All American	Plains All American	Crude-by-Rail Facility	St. James, LA	140.0
Plains/Enterprise	Eagle Ford JV	Crude Oil Pipeline	Gardendale, TX/Corpus Christi, TX	350.0
Sunoco Logistics	Eaglebine Express	Crude Oil Pipeline	Hearne, TX/ Nederland, TX	60.0
Sunoco Logistics	Sunoco Logistics	Crude-by-Rail Facility	Nederland, TX	21.5
Sunoco Logistics	Permian Express I	Crude Oil Pipeline	Wichita Falls, TX/Nederland, TX	150.0
Sunoco Logistics	Sunoco Logistics	Crude Oil Pipeline	Kilgore, TX/Houston, TX	35.0
Sunoco Logistics	West Texas Gulf	Crude Oil Pipeline	Colorado City, TX/Houston, TX	40.0
Texas International Terminals	Texas International Terminals	Crude-by-Rail Facility	Galveston, TX	90.0
TransCanada	Cushing Marketlink	Crude Oil Pipeline	Cushing, OK/ Port Arthur, TX	700.0
Transmontaigne	Transmontaigne	Crude-by-Rail Facility	Brownsville, TX	41.4
Net Local Crude Oil Production and Waterborne Deliveries				4,986.1
Total				9,732.5

1 Sources: Tables D.1, D.6, D.9, and G.18.

Table G.21 - Page 1 of 2
Alternative Capacity Based HHI [1] for the Houston to Lake Charles Area Definition of the Destination Market - Second Half of 2014 - Based on Net Local Crude Oil Production and Waterborne Deliveries
Rail Unloading Capacity Assigned to Connected Rail Carrier

Part I. HHI Results

Company	Unadjusted Capacities (MBD)	Capacity Share (%)	HHI Contribution
Col. 1	Col. 2	Col. 3	Col. 4
Seaway	420.0	6.1	37
Enbridge	430.0	6.2	39
BridgeTex	300.0	4.3	19
Burlington Northern Railroad	131.5	1.9	4
Enterprise	290.0	4.2	18
Enterprise and Genesis Energy	500.0	7.2	53
ExxonMobil	96.0	1.4	2
Kinder Morgan	300.0	4.3	19
Magellan Midstream	275.0	4.0	16
Phillips 66	27.0	0.4	0
Sunoco Logistics	285.0	4.1	17
TransCanada	700.0	10.1	103
Union Pacific Railroad	100.0	1.4	2
Net Local Crude Oil Production and Waterborne Deliveries [2]	3,043.0	44.1	* [3]
Total	6,897.5	100.0	

Refinery Crude Oil Capacity (MBD)	4,123.6	Unadjusted Capacity HHI	328
		Excess Capacity Ratio	1.67

Note:
[1] Due to the large volume of waterborne deliveries relative to the refinery crude oil inputs, the effective capacity HHI is the same as the unadjusted capacity HHI, and the adjusted capacity HHI is extremely small. Thus, only the unadjusted capacity HHI is shown in the table.
[2] Net crude oil production and waterborne deliveries equals local crude oil production plus waterborne deliveries less waterborne shipments out of the market less identifiable pipeline shipments out of the market.
[3] Sum of extremely small shares squared, which essentially equals zero.

1 Sources: Tables D.1, D.6, D.7, D.9, and G.18.

Table G.21 - Page 2 of 2
Alternative Capacity Based HHI [1] for the Houston to Lake Charles Area Definition of the Destination Market -
Second Half of 2014 - Based on Net Local Crude Oil Production and Waterborne Deliveries
Rail Unloading Capacity Assigned to Connected Rail Carrier

Part II. Description of the Individual Competing Facilities

Company	Asset	Type	Location	Capacity as of Second Half of 2014 (MBD)
Seaway	Seaway	Crude Oil Pipeline	Cushing, OK/ Houston, TX, Beaumont/Port Arthur, TX	420.0
Enbridge	Flanagan South Lease	Crude Oil Pipeline	Cushing, OK/ Houston, TX, Beaumont/Port Arthur, TX	430.0
BridgeTex	BridgeTex	Crude Oil Pipeline	Colorado City, TX/Houston, TX	300.0
Burlington Northern Railroad	Burlington Northern Railroad	Crude-by-Rail Facility	Gulf Coast Destination Market	131.5
Enterprise	South System	Crude Oil Pipeline	Sealy, TX/Katy, TX	290.0
Enterprise and Genesis Energy	Cameron Highway Oil Pipeline System ("CHOPS")	Crude Oil Pipeline	Eastern Offshore Louisiana/Texas City, TX	500.0
ExxonMobil	ExxonMobil Pegasus	Crude Oil Pipeline	Patoka, IL/Nederland, TX	96.0
Kinder Morgan	Crude and Condensate	Crude Oil Pipeline	Helena, TX/Houston, TX	300.0
Magellan Midstream	Longhorn	Crude Oil Pipeline	Crane, TX/Houston, TX	275.0
Phillips 66	Louisiana Local	Crude Oil Pipeline	Central Louisiana/Lake Charles, LA	27.0
Sunoco Logistics	Eaglebine Express	Crude Oil Pipeline	Hearne, TX/ Nederland, TX	60.0
Sunoco Logistics	Permian Express I	Crude Oil Pipeline	Wichita Falls, TX/Nederland, TX	150.0
Sunoco Logistics	West Texas Gulf	Crude Oil Pipeline	Colorado City, TX/Houston, TX	40.0
Sunoco Logistics	Sunoco Logistics	Crude Oil Pipeline	Kilgore, TX/Houston, TX	35.0
TransCanada	Cushing Marketlink	Crude Oil Pipeline	Cushing, OK/ Port Arthur, TX	700.0
Union Pacific Railroad	Union Pacific Railroad	Crude-by-Rail Facility	Gulf Coast Destination Market	100.0
Net Local Crude Oil Production and Waterborne Deliveries				3,043.0
Total				6,897.5

Sources: Tables D.1, D.6, D.9, and G.18.

Table G.22 - Page 1 of 2
Alternative Capacity Based HHI [1] for the Houston to Lake Charles Area Definition of the Destination Market - Second Half of 2014 - Based on Net Local Crude Oil Production and Waterborne Deliveries
Rail Unloading Capacity Assigned to Terminal Owners

Part I. HHI Results

Company	Unadjusted Capacities (MBD)	Capacity Share (%)	HHI Contribution
Col. 1	Col. 2	Col. 3	Col. 4
Seaway	420.0	6.1	37
Enbridge	430.0	6.2	39
BridgeTex	300.0	4.3	19
Citgo	20.0	0.3	0
Enterprise	290.0	4.2	18
Enterprise and Genesis Energy	500.0	7.2	53
ExxonMobil	96.0	1.4	2
GT Logistics	100.0	1.4	2
Kinder Morgan	300.0	4.3	19
Magellan Midstream	275.0	4.0	16
Phillips 66	27.0	0.4	0
Sunoco Logistics	306.5	4.4	20
Texas International Terminals	90.0	1.3	2
TransCanada	700.0	10.1	103
Net Local Crude Oil Production and Waterborne Deliveries [2]	3,043.0	44.1	* [3]
Total	6,897.5	100.0	

Refinery Crude Oil Capacity (MBD)	4,123.6	Unadjusted Capacity HHI	329
		Excess Capacity Ratio	1.67

Note:
[1] Due to the large volume of waterborne deliveries relative to the refinery crude oil inputs, the effective capacity HHI is the same as the unadjusted capacity HHI, and the adjusted capacity HHI is extremely small. Thus, only the unadjusted capacity HHI is shown in the table.
[2] Net crude oil production and waterborne deliveries equals local crude oil production plus waterborne deliveries less waterborne shipments out of the market less identifiable pipeline shipments out of the market.
[3] Sum of extremely small shares squared, which essentially equals zero.

1 Sources: Tables D.1, D.6, D.7, D.9, and G.18.

Table G.22 - Page 2 of 2
Alternative Capacity Based HHI [1] for the Houston to Lake Charles Area Definition of the Destination Market -
Second Half of 2014 - Based on Net Local Crude Oil Production and Waterborne Deliveries
Rail Unloading Capacity Assigned to Terminal Owners

Part II. Description of the Individual Competing Facilities

Company	Asset	Type	Location	Capacity as of Second Half of 2014 (MBD)
Seaway	Seaway	Crude Oil Pipeline	Cushing, OK/ Houston, TX, Beaumont/Port Arthur, TX	420.0
Enbridge	Flanagan South Lease	Crude Oil Pipeline	Cushing, OK/ Houston, TX, Beaumont/Port Arthur, TX	430.0
BridgeTex	BridgeTex	Crude Oil Pipeline	Colorado City, TX/Houston, TX	300.0
Citgo	Citgo	Crude-by-Rail Facility	Lake Charles, LA	20.0
Enterprise	South System	Crude Oil Pipeline	Sealy, TX/Katy, TX	290.0
Enterprise and Genesis Energy	Cameron Highway Oil Pipeline System ("CHOPS")	Crude Oil Pipeline	Eastern Offshore Louisiana/Texas City, TX	500.0
ExxonMobil	ExxonMobil Pegasus	Crude Oil Pipeline	Patoka, IL/Nederland, TX	96.0
GT Logistics	GT Omni Port	Crude-by-Rail Facility	Port Arthur, TX	100.0
Kinder Morgan	Crude and Condensate	Crude Oil Pipeline	Helena, TX/Houston, TX	300.0
Magellan Midstream	Longhorn	Crude Oil Pipeline	Crane, TX/Houston, TX	275.0
Phillips 66	Louisiana Local	Crude Oil Pipeline	Central Louisiana/Lake Charles, LA	27.0
Sunoco Logistics	Sunoco Logistics	Crude-by-Rail Facility	Nederland, TX	21.5
Sunoco Logistics	Eaglebine Express	Crude Oil Pipeline	Hearne, TX/ Nederland, TX	60.0
Sunoco Logistics	Permian Express I	Crude Oil Pipeline	Wichita Falls, TX/Nederland, TX	150.0
Sunoco Logistics	West Texas Gulf	Crude Oil Pipeline	Colorado City, TX/Houston, TX	40.0
Sunoco Logistics	Sunoco Logistics	Crude Oil Pipeline	Kilgore, TX/Houston, TX	35.0
Texas International Terminals	Texas International Terminals	Crude-by-Rail Facility	Galveston, TX	90.0
TransCanada	Cushing Marketlink	Crude Oil Pipeline	Cushing, OK/ Port Arthur, TX	700.0
Net Local Crude Oil Production and Waterborne Deliveries				3,043.0
Total				6,897.5

1 Sources: Tables D.1, D.6, D.9, and G.18.

Table G.23
Alternative Excess Capacity Held by Others in Seaway's Destination Market Based on Using Net Local Crude Oil Production and Waterborne Deliveries

	Destination Market Definition	
	Gulf Coast Area	Houston to Lake Charles Area
Total Unadjusted Capacity (MBD)	9,732.5	6,897.5
Refinery Crude Oil Capacity (MBD)	7,357.0	4,123.6
Excess Unadjusted Capacity	2,375.5	2,773.9
Seaway Unadjusted Capacity (MBD)	420.0	420.0
Seaway's Deliveries (MBD)	318.0	318.0
Seaway Excess Unadjusted Capacity	102.0	102.0
Excess Unadjusted Capacity Held by Seaway Competitors (MBD)	2,273.4	2,671.9
Excess Capacity Held by Others Ratio	7.1	8.4

Sources: Tables G.9, G.19, and G.21.

Appendix A

Economic Basis for Assigning Ownership to Rail Loading and Unloading Facilities

The rail capacity associated with the rail loading and unloading facilities in the origin and destination markets needs to be assigned to an owner (*i.e.*, to the party controlling the assets) for the purposes of calculating HHIs. Typically, the control over a transportation facility is assigned to the participants who have made the incremental investments needed to create the incremental transportation capability.

Since the North American rail network is robust and expansive, only a relatively small incremental investment is required to enable rail transportation to transport crude oil to market. The primary incremental investment necessary is associated with building the loading terminals in the origin areas to load crude oil into tank cars and unloading facilities at the destination areas necessary to offload the crude oil for a customer's use. Typically the next largest incremental investment required is for rail tank cars which store the crude oil in movable containers for the railroads to deliver the crude oil to market.

The rail loading and unloading terminals and rail tank cars are not typically constructed or owned by the railroad companies. Instead, these facilities are primarily constructed and operated by other companies including crude oil producers, crude oil marketers, crude oil refiners, and non-railroad crude oil transportation services companies.

Based on incremental investment required, it is appropriate to assign control of the rail loading and unloading facilities to the owners of these facilities. However, the railroads are essential facilities and in some regions there are relatively few railroad transportation providers. To be conservative, control of the capacity of rail loading

facilities is first assigned to the connecting railroad within the HHI calculations[1] This approach represents a more conservative view of the increased competitiveness provided by the rail loading facilities (*i.e.* there are fewer competitors and a higher HHI than would exist if the tables assigned control of the capacity of rail loading facilities to the terminal owners). We also performed a secondary calculation assigning the capacity to the terminal owners.

[1] Another conservative assumption was made regarding the assignment of control of the capacity of rail loading facilities that are connected to short line railroads. Here, the nearest class one railroad was assigned control of the capacity of rail loading facilities instead of the connecting short line railroad.