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September 1, 2006

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FEDERAL ENERGY
REGULATORY COMMISSION

Via HAND DELIVERY

The Honorable Magalie R. Salas
Secretary
Federal Energy Regulatory Commission
888 First Street, NE
Room 1A-Dockets
Washington, DC 20426

Re: **Docket No. OR06-11-000**

Dear Ms. Salas:

Enclosed for filing are the original and 14 copies of an Offer of Settlement submitted by Enbridge Energy, Limited Partnership, a common carrier oil pipeline, with the support of the Canadian Association of Petroleum Producers. Because no proceeding is currently ongoing in which this Offer of Settlement can be docketed, Enbridge Energy requests that an OR docket be established for consideration of this proposed settlement.

Under 18 C.F.R. § 385.602(f)(2) (2005), comments on this Offer of Settlement are due within 20 days of the date of this filing, which is September 21, 2006.

Please date-stamp the enclosed additional copy of this filing and return it to the messenger for our files.

Sincerely,

Steven Reed

Counsel for Enbridge Energy, Limited Partnership

cc: Tariff Subcribers

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EXPEDITED TREATMENT REQUESTED

UNITED STATES OF AMERICA
BEFORE THE
FEDERAL ENERGY REGULATORY COMMISSION

Enbridge Energy, Limited Partnership	)))	**Docket No. OR06-** 11-000

OFFER OF SETTLEMENT

Pursuant to 18 C.F.R. § 385.602 (2005), Enbridge Energy, Limited Partnership ("Enbridge Energy"), a common carrier oil pipeline regulated by the Commission, hereby submits this Offer of Settlement under the Facilities Surcharge framework approved by the Commission in *Enbridge Energy, Limited Partnership*, 107 FERC ¶ 61,336 (June 30, 2004) ("*Facilities Surcharge Order*"). With the support of the Canadian Association of Petroleum Producers ("CAPP"), an association that represents the producers of virtually all of the crude petroleum transported by Enbridge Energy,[1] the settling parties seek Commission approval to implement an additional component of the Facilities Surcharge to permit recovery by Enbridge Energy of a portion of the costs of a planned new pipeline from Flanagan, Illinois to Patoka, Illinois (the "Southern Access Mainline Extension" or "Extension pipeline").

In the *Facilities Surcharge Order*, the Commission approved the settlement framework that established the Facilities Surcharge as a component of Enbridge Energy's U.S. tariff rates. The basic concept underlying the Facilities Surcharge is to provide a flexible mechanism for Enbridge Energy to recover the costs incurred in responding to shipper requests for enhancements or modifications to the pipeline system, greater variety in the types of crudes

[1] CAPP producer members account for more than 95 percent of Canada's oil and gas production. Approximately 97 percent of the crude petroleum transported by Enbridge Energy originates in Canada.

handled, and increased access by shippers to particular markets or crude types. As negotiated with CAPP, the Facilities Surcharge permits Enbridge Energy to recover the costs associated with particular shipper-requested projects through an incremental surcharge added to its existing base rates and other Commission-approved surcharges already in effect.

This Offer of Settlement contains the sixth specific agreement submitted under the Facilities Surcharge framework.[2] This new agreement relates to the Mainline Extension portion of the planned Southern Access Program (which is described in more detail below).[3] The terms of the surcharge are attached hereto as Exhibit I. A copy of the CAPP letter memorializing the Southern Access Mainline Extension settlement is attached hereto as Exhibit II.

As the Commission is aware from prior proceedings, Enbridge Energy operates the U.S. portion of the Enbridge System (commonly called the "Lakehead System"), which is a major crude oil pipeline system providing transportation of Western Canadian oil to the U.S. Midwest and points in Eastern Canada and New York State, subject to the Commission's jurisdiction.[4] The Canadian portion of the Enbridge System is operated by Enbridge Pipelines Inc. ("EPI") and is regulated by the National Energy Board ("NEB") in Canada. By way of background, the discussion below will describe the overall Southern Access Program, which includes the Southern Access Extension. In its entirety, the Southern Access Program involves a coordinated

[2] The first four agreements were submitted contemporaneously with the original Offer of Settlement establishing the Facilities Surcharge framework. The fifth agreement related to the Southern Access Mainline Expansion.

[3] The Southern Access Mainline *Extension* (the subject of this Offer) is a separate, though related, project from the Southern Access Mainline *Expansion*. Both projects are part of a coordinated expansion and extension of service known as the Southern Access Program. An Offer of Settlement regarding the Mainline Expansion was approved by the Commission on March 16, 2006. *Enbridge Energy, Limited Partnership*, 114 FERC ¶ 61,264 (March 16, 2006).

[4] A map of the Enbridge System, depicting the various components of the System, including the planned Mainline Extension, is attached hereto as Exhibit III.

extension of capacity to new areas and expansion of capacity on existing routes on the Enbridge System to accommodate a projected major increase in production from the oil sands resources in Western Canada. The Extension Pipeline addressed in this Offer of Settlement is the final component of the overall Southern Access Program.

REQUEST FOR EXPEDITED TREATMENT

This Offer of Settlement is being filed now, in advance of a rate filing or litigated proceeding, in order to give the public notice of the proposed addition of the Southern Access Mainline Extension component to the Facilities Surcharge and to request approval to implement the new component when the Southern Access Mainline Extension facilities are placed in service. Enbridge Energy respectfully requests that the Commission provide expedited treatment of this Offer of Settlement to the extent consistent with the Commission's rules and policies. The total cost of the Mainline Extension is estimated to be approximately $325 million (in 2006 U.S. dollars). Although Enbridge Energy has already begun to incur some of the preliminary planning and engineering costs for this project, it will need to make irreversible contractual commitments for major capital items such as acquisition of pipe by no later than November 20, 2006. Enbridge Energy will not be able to make those capital commitments in a timely manner if it does not have reasonable assurance that the tariff surcharge mechanism set forth in this Offer of Settlement will be accepted by the Commission. Any deferral of those commitments threatens to delay the projected in-service date of the new Extension pipeline and thereby create unavoidable bottlenecks that may hamper access of increased Canadian crude supplies to the U.S. Midwest market. Therefore, Enbridge Energy requests that the Commission act on this Offer of Settlement as soon as possible, but in any event by November 20, 2006.

EXPLANATORY STATEMENT

I. Overview of Facilities Surcharge Framework

The Facilities Surcharge, as approved by the Commission in the *Facilities Surcharge Order*, allows Enbridge Energy to recover the costs associated with particular shipper-requested projects through an incremental surcharge added to the existing base rates and other Commission-approved surcharges already in effect. The Facilities Surcharge is intended to be a transparent, cost-of-service-based tariff mechanism that will be trued-up each year to actual costs and throughput and that will therefore not be subject to adjustment either upwards or downwards under indexing. *Facilities Surcharge Order,* at P 2.

The particular projects to be included are determined as the result of a negotiating process between Enbridge Energy and CAPP. As described in the affidavit of Mr. Wilf Schrage (attached as Exhibit IV), CAPP represents the upstream oil and natural gas industry in Canada. With approximately 150 member companies that produce more than 95% of Canada's crude oil, CAPP, through its committees, negotiates with pipelines to ensure fair pipeline transportation charges and tariffs. CAPP fulfills this mandate through the work of a number of committees, including a Crude Oil Pipeline Expansion Committee, and a Crude Oil Committee that reports their findings and recommendations to an Executive Policy Group. *See* Schrage Aff, at ¶ 3. CAPP's letter of support for the Extension project and the related surcharge terms is attached as Exhibit II.

At the time of the establishment of the Facilities Surcharge, Enbridge Energy and CAPP had identified four specific projects for inclusion in the original surcharge.[5] *Facilities Surcharge*

[5] The first four projects were: (1) the Griffith Hartsdale Transfer Lines; (2) the Hartsdale Tank Charge; (3) the Superior Manifold Modification Project; and (4) the Line 17 Expansion Project.

Order at P 3. However, the Facilities Surcharge framework was expressly designed to be open-ended, and the Commission accepted Enbridge Energy's proposal "to submit for Commission review and approval future agreements resulting from negotiations with CAPP where the parties have agreed that recovery of costs through the Facilities Surcharge is desirable and appropriate." *Id.* at P 1. Consistent with that intent, the fifth project, the Southern Access Mainline Expansion, was approved for inclusion in the surcharge by the Commission on March 16, 2006. As with the prior projects, CAPP and Enbridge Energy have agreed to the recovery of costs of the Mainline Extension through a surcharge. Accordingly, this supplemental Offer of Settlement is consistent with the intent of the Facilities Surcharge framework as previously approved by the Commission.

II. The Southern Access Mainline Extension

As noted above, the proposed Extension pipeline is a significant part of a larger project known as the Southern Access Program. This section will describe the overall Southern Access Program in order to provide the Commission a context for the Mainline Extension, which is the subject of this Offer of Settlement. This information is intended to aid the Commission in understanding the systemwide benefits of the Mainline Extension and should not be read to suggest that the Commission is being asked to re-visit any regulatory issues relating to the other portions of the Southern Access Program.

Based on the substantial capital investment currently being made in new facilities to develop Western Canada's abundant oil sands resources, as well as the continuing development of Canadian heavy oil reserves, Enbridge Energy anticipates a major increase in the supply of Canadian crude oil available for export to U.S. markets. The Commission has previously taken notice of this "expected significant increase in Western Canadian crude oil production over the next decade" and the associated benefits to domestic refiners of having access to this source of refinery feedstock to offset declining domestic crude oil production in the Mid-Continent area.

Enbridge Energy Co., Inc., 110 FERC ¶ 61,211 at P 2 (2005). The Southern Access Program is prompted in large part by the projected need for significant infrastructure expansion in coming years to transport the expected surge in Canadian crude oil imports to the U.S. (offsetting supplies otherwise required from more volatile sources overseas).

As discussed in Schrage Affidavit, at ¶¶ 8-9, the Southern Access Program as a whole involves a coordinated capacity expansion and extension of the Enbridge System from Hardisty, Alberta to markets in the U.S. Midwest. The first phase of that Program, which is referred to as the Southern Access Mainline Expansion, centers on the construction of a new, 42-inch diameter pipeline ("Line 61") between Superior, Wisconsin and Flanagan, Illinois (a point southwest of Chicago), along with associated upstream modifications of the system (both in Canada and the U.S.) to balance the expanded capacity created by the new Superior-to-Flanagan line. At Flanagan, Line 61 will interconnect with the Spearhead Pipeline, which currently flows from Chicago to Cushing, Oklahoma (having been reversed in 2005-06 from its former Cushing to Chicago service). As part of the Expansion project, the segment of the Spearhead Pipeline from Flanagan to Chicago will be reversed again to permit volumes reaching Flanagan on Line 61 to be directed either to Chicago or Cushing. The Mainline Expansion will initially result in an increase in capacity for deliveries to Flanagan of 400,000 barrels per day ("b/d"), which is expandable up to 1.2 million b/d. The cost of the Mainline Expansion (approximately $1 billion in 2006 U.S. dollars)[6] is to be recovered through a new component of the Facilities Surcharge, which was the subject of the prior Offer of Settlement approved by the Commission in *Enbridge Energy, Limited Partnership*, 114 FERC ¶ 61,264 (2006).

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[6] All dollar figures in this pleading are in 2006 U.S. dollars unless otherwise specified.

The Mainline Extension involves the construction of 178 miles of 36-inch diameter pipeline from Flanagan to Patoka, Illinois, extending service to that market hub. Once completed, the new Extension pipeline will provide approximately 400,000 b/d of capacity (based on a 100% heavy crude slate) to these markets.[7] The cost of the Mainline Extension is estimated to be $325 million. The Mainline Extension will be integrated, both operationally and from a tariff rate standpoint, into the Lakehead System, as more fully discussed below.

III. The Mainline Extension: Public Interest and Shipper/Producer Benefits

The proposed Mainline Extension will benefit the public interest, as well as providing direct benefits to shippers and producers of the crude oil transported by Enbridge Energy. The public interest and shipper/producer benefits of the Extension pipeline are described in detail in the Affidavits of Wilf Schrage, Juan Garcia, and Peter Douvris, which are attached as Exhibits IV, V, and VI, respectively. Those benefits can be summarized as follows:

A. Public Interest Benefits

As the Commission is aware, current forecasts predict a major surge in production of crude oil from the oil sands in Western Canada in the next 10-15 years. Producers have already invested tens of billions of dollars in oil sands developments, and additional projects involving capital investments of more than $80 billion have been announced or are in various stages of development. Among other authoritative projections, the NEB recently forecast an increase in oil sands production from approximately 1.1 million b/d in 2005 to approximately 3.0 million b/d in 2015.[8] Much of this increased production will need to find new markets in the U.S. as

[7] The 400,000 b/d of initial capacity in the Extension pipeline can be expanded incrementally up to 800,000 b/d through installation of additional pumping capability. Schrage Aff., Exhibit IV, at ¶ 9.

[8] National Energy Board, "Canada's Oil Sands – Opportunities and Challenges to 2015: An Update," (June 2006), at viii ("NEB Oil Sands Report") (*available at* http://www.neb-

existing markets for Canadian crude oil become over-supplied. Opening up those new markets will require substantial new infrastructure investments, including new pipelines to expand the reach of Canadian oil imports to the U.S.

The size of the oil sands resource in Western Canada is impressive by any measure. As reported by the NEB, the Alberta Energy and Utilities Board estimates that "Alberta's oil sands contain an ultimately recoverable crude bitumen resource of 50 billion cubic metres (315 billion barrels), with remaining established reserves of almost 28 billion cubic metres (174 billion barrels) at year-end 2004."[9] From the perspective of U.S. oil markets, this resource is unusually important because:

- It is located in a politically stable, democratically governed country with which the U.S. shares the world's longest undefended border;
- It is accessible to major U.S. markets by pipeline, avoiding the need for tanker transportation and minimizing transportation costs in general;
- The production from this resource is increasing rapidly at a time when other North American crude oil production – and particularly domestic production within the U.S. – is generally declining; and
- At current and projected oil prices, crude oil produced from the oil sands is likely to remain highly competitive with other marginal sources of U.S. supply (including oil from politically volatile regions such as the Middle East and Venezuela).

As noted by the NEB, due to the attractiveness of the oil sands resource in the current environment, "[c]ompanies have been aggressively accelerating plans for expansion of existing

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one.gc.ca/energy/EnergyReports/EMAOilSandsOpportunitiesChallenges2015_2006/EMAOilSandsOpportunities2015Canada2006_e.pdf).

[9] NEB Oil Sands Report at 9. By way of comparison, total production to date from Alaska's giant Prudhoe Bay oil field, which opened in 1977, has been approximately 12.8 billion barrels. *See* Alaska State Chamber of Commerce, "Industry Profiles, Oil & Gas Industry," (*available at* www.alaskachamber.com/artman/publish/og.html) (last visited on September 1, 2006).

projects and initiating new projects."[10] Among the "new players" attracted to the oil sands are "several of the world's multi-national oil companies . . . as well as several subsidiaries of foreign national oil companies." *Id.* The NEB estimates that capital expenditures on new oil sands projects over the period 2006-2015 (even excluding projects that have been announced but may not be completed) could total as much as $95 billion (Cdn) (or about $80 billion US at current exchange rates). *Id.* at 12.

In order for this expected surge in Canadian oil sands production to reach U.S. markets, adequate pipeline infrastructure must be in place to access existing and potential new markets. Enbridge Energy and affiliated companies have already undertaken a number of projects to accommodate this growing demand, including:

- Spearhead Pipeline. The Spearhead Pipeline, which involved reversal of an existing crude oil pipeline to bring Canadian crude oil to the major trading and terminaling hub at Cushing, Oklahoma, commenced service in March 2006;

- Southern Access Mainline Expansion. As noted above, this expansion, which is currently underway, will increase the capacity of the Lakehead System to transport Canadian crude oil as far as Flanagan, Illinois where Southern Access will intersect with the Spearhead Pipeline, permitting further movements to Chicago or Cushing.

The Southern Access Mainline Extension is the next logical evolution of the expansion and extension of the Enbridge System to permit increased supplies of Canadian crude to access U.S. petroleum refining markets.

When completed, the Extension pipeline will permit Canadian crude (as well as U.S. crude originating from sections of the Williston Basin field in North Dakota and Montana) to move directly through the new Line 61 to Flanagan and continue through the 36-inch Extension pipeline to Patoka, Illinois. Patoka, in turn, is the intersection point of a number of pipeline

[10] NEB Oil Sands Report, *supra* n. 9, at 9.

systems providing access to other refining centers. As discussed in the Schrage Affidavit, Exhibit IV, at ¶ 13, the Capline, ExxonMobil, Capwood, Woodpat, Marathon, Mustang and Chicap oil pipeline systems intersect at the Patoka hub. A 36-inch Extension Pipeline to Patoka provides WCSB crude with ready access to 500,000 b/d of Marathon refining capacity, plus access to refining centers at Wood River, Illinois (300,000 b/d capacity), and Lima, Ohio (160,000 b/d capacity). It also provides alternative access to refining centers such as Chicago, Detroit, and Toledo. Shippers on the Extension could also access refineries located on the U.S. Gulf Coast via the 66,000 b/d capacity Mobil pipeline system. Schrage Aff., Exhibit IV, at ¶ 13. Providing access for these increased crude oil supplies to refineries in southern PADD II and as far south as the Gulf Coast will be highly beneficial to the U.S. refining market as a whole, giving many refiners the ability to diversify their sources of refinery feedstock from a stable, secure producing region.

In short, the Southern Access Extension pipeline, when built, will enhance the security and stability of energy supplies in the U.S., and therefore is an infrastructure project that is very consistent with the public interest and the policy goals of the Commission. *See, e.g., Colonial Pipeline Co.,* 116 FERC ¶ 61,078 at P 16 n.5, 44 (2006).

B. Shipper/Producer Benefits

Apart from its overarching public interest benefits, the Extension project will also have direct, tangible benefits for the principal users of the Lakehead System, including both shippers and the producers whose oil is transported by Enbridge Energy. Those systemwide benefits plainly support the surcharge mechanism agreed to by Enbridge Energy and CAPP, which is intended to spread the costs of the Extension pipeline over the entire Lakehead System so that the costs are properly matched with the benefits accruing systemwide.

1. Rate benefits

The most direct and quantifiable shipper benefit arising from the Extension pipeline is a projected systemwide reduction in the tariff rates that would otherwise apply to Lakehead shippers in future years. As explained in the Schrage Affidavit, this rate reduction benefit arises because the Extension will facilitate greater utilization of Enbridge Energy's upstream facilities, thereby reducing the net cost to shippers, whether or not they transport oil to Patoka on the Extension pipeline itself. Schrage Aff., Exhibit IV, at ¶ 11.

The key to the rate benefits is that the Extension pipeline will provide additional take-away capacity at Flanagan, which will be a key pipeline intersection for Canadian crude oil flowing south through the Lakehead System. Currently, the Spearhead Pipeline (if expanded in both directions through additional pumping capacity) could provide approximately 400,000 b/d of capacity out of Flanagan (*i.e.*, 200,000 b/d heading southwest to Cushing and 200,000 b/d heading northeast to Chicago). This is consistent with the initial planned capacity of the new Superior-to-Flanagan line (400,000 b/d). However, as explained in the Schrage Affidavit, as a 42-inch diameter pipeline, Line 61 will have the capability of being expanded in increments up to as much as 1.2 million b/d of capacity through additional pumping facilities (that is, without the addition of any new pipe in the ground). The additional downstream capacity represented by the Extension pipeline will unlock that potential upstream capacity, permitting shippers to realize the rate reductions created by the enhanced utilization of Line 61. Schrage Aff., Exhibit IV, at ¶ 24.

The rate reductions are related to the terms of the Mainline Expansion Surcharge settlement that was previously approved by the Commission in March 2006. That surcharge (like the one proposed here for the Extension project) is a cost-based tariff mechanism that is trued-up annually to actual results, including actual throughput. Thus, all else being equal, greater throughput on the Lakehead System (and in particular greater throughput on the lines heading south from Superior to the Chicago area (the "ex-Superior lines")) translates into a lower effective Mainline Expansion surcharge. This volume-based reduction offsets the slight increase in the rates resulting from imposition of the Extension surcharge. Thus, as throughput on the ex-Superior lines increases, the impact of the Extension surcharge is reduced and eventually eliminated altogether. Indeed, as shown in the Affidavit of Peter Douvris, once the incremental throughput exceeds 200,000 b/d (*i.e.*, 50% utilization), the net effect is expected to be a slight reduction of the total effective rates across the System. When incremental throughput is 400,000 b/d (*i.e.*, 100% utilization), the total rate to transport a barrel of heavy crude oil from the U.S.-Canada border to Chicago is expected to decline by an estimated 3 cents per barrel. *See* Douvris Aff., Exhibit VI, at ¶ 10.

2. Market access benefits

In addition to the direct rate benefits discussed above, the Extension pipeline will result in improved distribution of Canadian crude in U.S. markets. This benefit is described in Mr. Schrage's affidavit, which in turn relies on an independent study conducted by Muse, Stancil & Co. ("Muse Report") (Attachment B to the Garcia Affidavit). As discussed in the Muse Report and the Garcia Affidavit, the market access benefits of the Extension pipeline take several forms. First and foremost, the Extension pipeline will permit Canadian producers (as well as U.S. producers in North Dakota and Montana that are connected to the Enbridge North Dakota pipeline) to access the Patoka market hub by a direct and efficient route.[11] As discussed earlier,

[11] Currently, it is possible for Western Canadian oil to reach Patoka, but only through routes that are capacity-constrained and therefore of limited utility for new supplies. For example, Canadian crude can be transported down the Express Pipeline system to Casper,

the Extension will provide access via Patoka to over 1 million b/d of refinery capacity. As the Muse Report states, "the Midwestern refiners may have considerable unused capacity to handle Canadian crude, but are unable to process more because of upstream pipeline constraints." Muse Report, at 15. These pipeline capacity constraints create a large differential between downstream crude prices and the price available for "trapped barrels" that cannot access the most desirable markets. By relieving these constraints, thus freeing those "trapped barrels" and allowing them to flow to the best market available, the netback price available to the producers of the oil should be increased.[12] "The construction of the Southern Access Extension enables the Canadian heavy sour crude to flow to the large U.S. refineries that are capable of processing heavy sour crude, and accordingly, realize higher values for the Canadian heavy sour crude than is the case for the refineries [that have reached their upper limit for processing Canadian crude]." Muse Report, at 17.[13]

Wyoming, where Express connects to the Platte Pipeline, which delivers to Wood River, Illinois (from which Patoka is accessible via the Woodpat pipeline). However, as the Commission is aware, Platte has been experiencing significant capacity constraints and as a result is in virtually constant prorationing at the present time. *See Platte Pipe Line Company*, 115 FERC ¶ 61,215 (2006).

[12] The "netback price" is essentially the price of crude oil at the wellhead when it is sold into a distant market where the crude price is set by market forces. To the extent that market price is a relatively fixed number, the producer ordinarily cannot sell its barrels at the wellhead for more than the distant market price minus the cost of transportation to that market.

[13] Mr. Garcia likewise concludes: "Based upon my forecast of Canadian WCSB production (which is supported by the CAPP and NEB forecasts) and increasing demand for WCSB in the Midwest markets, including Patoka, the utilization of the Southern Access Extension can be expected to steadily grow as Canadian crude production rises, even under current refinery configurations. In addition, there is the distinct possibility that demand growth for Canadian crude in the markets supplied by the Southern Access Extension will be further *fueled by refinery upgrading projects that are specifically intended to increase their capability to* process Canadian crude." Garcia Aff., Exhibit V, at ¶ 16.

The NEB recognized this phenomenon in a recently released report on transportation alternatives for oil and gas produced in Canada.[14] In that report, the NEB noted that inadequate pipeline capacity leads to price differentials that penalize heavier crudes such as those produced from the oil sands. As the NEB commented:

> Price differentials are increasingly becoming an issue on oil pipelines because of the increase in bitumen blend crude oil supply from the oil sands. Limited access to markets, particularly those with refineries that process heavy crude oil, exerts downward pressure on heavy oil prices and widens the light-heavy differential.

Id. at 7. The NEB went on to say: "Wide light-heavy differentials reduce heavy oil producers' netbacks and at extreme levels could possibly result in some oil-sands projects being uneconomic." *Id.* at 8. However, according to the NEB, increased pipeline infrastructure can help to alleviate this problem: "Recently, the differential has narrowed because of increased market access with the delivery of western Canadian crude oil to Cushing, Oklahoma through the Spearhead Pipeline and into the U.S. Gulf Coast through the reversed Mobil Pipeline." *Id.*

The Southern Access Extension pipeline, by opening up direct access to Patoka, should have a similar positive effect on producer netbacks for heavy oil sands production. Higher netbacks, in turn, should stimulate increased investment in oil sands projects, potentially bringing even more of this valuable resource to U.S. refining markets.

On the refiner side, the benefits of increased Canadian crude supply include greater diversity of supply, greater security of supply, and access to a plentiful resource that is attractively priced relative to offshore crudes imported through the Gulf Coast. Garcia Aff., Exhibit V, at ¶ 8. Thus, refiners in markets served through Patoka will recognize tangible

[14] "Canadian Hydrocarbon Transportation System: Transportation Assessment," National Energy Board (June 2006) ("NEB Transportation Report") (*available at* www.neb-one.gc.ca/energy/EnergyReports/TACdnHydrocarbonTransportation2006_e.pdf).

benefits from the Extension as well. In fact, the Muse Report projects utilization will rise from 158,000 b/d in 2010 (the first full year of service) to 567,000 b/d in 2020. Muse Report, at 14.

Importantly, the market access benefits – like the rate and operational benefits – flow across the entire system and not just to the users of the Extension line. Because the crude market is largely fungible, an increase in the netback price for barrels transported to and beyond Patoka will necessarily raise netback prices for all oil sands producers since they will have the same opportunity to seek more valuable markets if the netback in their current market is inadequate. This is a major advantage of expanding a common carrier system such as the Lakehead System, since capacity in Lakehead is available to all potential shippers on a pro rata basis (*i.e.*, there are currently no capacity set-asides or prorationing preferences for any Lakehead shippers). Thus, the benefits of the Extension pipeline will be widely shared in the shipper and producer communities.

3. Operational benefits

The Extension pipeline is expected to create significant operational benefits that will accrue to Lakehead System shippers as a whole. *See* Schrage Aff., Exhibit IV, at ¶¶ 11-26. As discussed in the Schrage Affidavit, at ¶¶ 15-22, the Muse Report values two operational benefits: improved crude quality (Muse Report, at 17-19), and reduced transit time (Muse Report, at 19-21).

First, by making it possible to increase throughput on Line 61, the Extension line is expected to result in an increase in overall crude quality at a lower cost than would otherwise be incurred. As described in the Schrage Affidavit, at throughput volumes below 500,000 b/d, Line 61 will be in a state described as "laminar flow." A line in laminar flow is more likely to *encounter intermingling of different grades of crude oil at the interface between batches of crude.*

To avoid those quality issues, Line 61 will initially be batch-pigged, meaning that a mechanical device (known as a "pig") will be inserted between 120,000-barrel batches to minimize cross-batch contamination. *See* Schrage Aff., Exhibit IV, ¶ 15.

As Mr. Schrage explains, once Line 61 reaches 500,000 b/d of throughput, it will no longer be in "laminar flow" but will enter the state referred to by petroleum engineers as "turbulent flow," which is a hydraulic pattern that minimizes cross-batch contamination without the need for batch-pigging. Again, in the absence of the Extension pipeline, Line 61 will be limited to its initial capacity of 400,000 b/d unless and until additional take-away capacity is available at Flanagan. With the Extension in place, however, the take-away capacity will exist to expand the Line 61 to or beyond the 500,000 b/d level, thus permitting the benefits of turbulent flow to be realized. *See id.* ¶ 16. And the Extension will allow Line 14 to be completely devoted to light crude service. This rearrangement of capacity will eliminate transmixing contamination on Line 14, and thus significantly improve the quality of light crudes transported to Chicago and Patoka. Schrage Aff., Exhibit IV, at ¶ 20. The Muse Report values this benefit to shippers to be $9.1 million annually for the forecasted period of 2010 to 2015. Muse Report, at 19.

Second, the Muse Report values the operational benefit of reduced crude transit times. Muse Report, at 20. Increasing the flow on the 42-inch Line 61 from 400,000 b/d to 600,000 b/d (due to the increased takeaway capacity at Flanagan) decreases the transit time by 3.3 days, and increasing the flow rate to 800,000 b/d decreases the transit time by a further 1.6 days. These transit time improvements will provide important financial benefits to shippers as well, in the form of reduced working capital requirements. Muse has calculated the annual savings accruing to shippers as a result of the improvement in working capital to be $10 million growing to $25 million. *See* Muse Report, at 21.

In addition to the two operational benefits valued in the Muse Report, the Extension will have other operational benefits. For example, by creating an additional outlet for crude oil destined for markets south of Chicago, the Extension pipeline will help to avoid a "bottleneck" at Chicago that would affect shippers up and down the System through increased prorationing of capacity at times of high demand. *See* Schrage Aff., Exhibit IV, at ¶ 24.

Also, the new line enhances flexibility in the event of operational issues with an existing line, ranging from unscheduled maintenance to natural disasters. *See id.* ¶ 23. For example, if one of the existing lines from Superior to Chicago (*i.e.*, Line 6A or 14) were temporarily out of service, additional crude could be routed through the Southern Access Expansion and Extension lines to Patoka and then back to Chicago through the Chicap system. Alternatively, if the Minnesota Pipeline (which transports crude oil to Minneapolis from a connection with the Lakehead System at Clearbrook, Minnesota) were temporarily out of service, additional crude could be routed to Patoka and then back via Wood River, Illinois and the Wood River Pipeline to Minneapolis. *See id.*

Although the rate and operational benefits described above are contingent on additional incremental throughput being transported through Line 61 and the new Extension pipeline, the likelihood of such additional throughput being achieved in the foreseeable future is very strong. As discussed in the Garcia Affidavit, recent forecasts of Western Canadian oil sands production have been increasingly bullish, with each forecast generally exceeding the levels predicted in the prior one. Garcia Aff., Exhibit V, at ¶¶ 4-7. The combination of high world oil prices and tight crude supplies in the U.S. have further contributed to the interest in rapid development of the oil sands resource. Enbridge's forecast (which is in line with that of CAPP and the NEB) "shows WCSB production increasing from 2.18 million barrels per day to 3.97 million barrels per day" from 2005 to 2015. Garcia Aff., Exhibit V, at ¶ 4. Based on this forecast, Mr. Garcia has determined that "the utilization of the Southern Access Extension can be expected to steadily grow as Canadian crude production rises." *Id.* at ¶ 9. In addition, demand for Canadian crude may be fueled even further by refinery upgrading projects that are specifically intended to increase their capability to process Canadian crude. *Id.* The Muse Report specifically lists the refiner upgrading plans in an attachment to the report. *See* Attachment 1 to Muse Report.

* * *

In sum, this project has substantial public interest and shipper/producer benefits that accrue systemwide. As a result, it is clearly reasonable and appropriate for the costs of the Extension to be recovered through a modest systemwide surcharge borne by all Lakehead users (as CAPP and Enbridge Energy have agreed in this Offer of Settlement). This is consistent with oil pipeline precedent at the Commission, *see SFPP, L.P.*, 104 FERC § 61,163 at P 10-11 (2003); *Colonial Pipeline Co.*, 116 FERC ¶ 61,078 at P 54 (2006), and comports with the Commission's general policies favoring the matching of costs and benefits for users of a regulated facility.

IV. Terms of the Proposed Surcharge

The specific terms of the surcharge calculation are set forth in Exhibit I of the Offer of Settlement, and are further explained in the Douvris Affidavit. In general, Enbridge Energy will recover the cost of service of the Southern Access Mainline Extension through a joint tariff and a surcharge, which will be included in the Facilities Surcharge added to the indexed base rates and other existing surcharges currently in effect for Enbridge Energy. The surcharge will be calculated on a cost of service basis and trued-up annually in the same manner as the existing surcharges under the Facilities Surcharge framework. In particular, Enbridge Energy will file the new surcharge at such time as the first Mainline Extension facilities go into service, based on an estimate of the first year's projected costs and throughput volumes. Thereafter, on April 1 of each succeeding year, Enbridge Energy will adjust the surcharge to true-up the prior year's costs and throughput volumes to actual data and to reflect the projected costs and throughput volumes for the then-current year. The surcharge will remain in effect for the projected depreciable life of the new facilities – 30 years.

As set forth in Exhibit I, the terms of the cost-of-service calculation supporting the surcharge have been stipulated between CAPP and Enbridge Energy as follows. Enbridge Energy will use the Commission's Opinion No. 154-B methodology with various stipulated inputs. The stipulated capital structure will remain fixed at 55% equity, 45% debt, consistent with the Southern Access Mainline Expansion Surcharge. The stipulated annual depreciation rate will be fixed at 3.33%. The stipulated cost of debt for each year will be the weighted average long-term cost of debt of Enbridge Energy Partners, L.P. at the end of the prior calendar year. The stipulated cost of equity will be fixed at a 9% real rate of return plus inflation. The inflation rate used will be the current year CPI-U as determined from time to time in accordance with the Opinion 154-B methodology. The tax allowance component of the cost of service will be determined each year in accordance with the FERC's tax allowance policy in effect in such year, as applied to Enbridge Energy. All incremental operating costs, property or similar taxes, and fuel and power expenses associated with the Southern Access Mainline Extension will be included in the cost of service. As set forth in Exhibit I, the revenue attributable to collection of the distance-based rate from Flanagan to Patoka will be credited against the cost of service of the Extension Pipeline in the calculation of the Extension surcharge.[15]

[15] *An illustration of the surcharge calculation, using the stipulated inputs and estimates* for capital and operating costs, is attached to the Douvris Affidavit (Exhibit VI to this Offer of Settlement) as Attachments A-C. This calculation is offered for illustrative purposes only; under

For financing reasons, Enbridge Energy will not itself own the Extension pipeline. Instead, as discussed in the Schrage Affidavit, the line from Flanagan to Patoka will be constructed and owned by a separate subsidiary of EPI. Schrage Aff. Exhibit IV, at ¶ 27. As a wholly-owned subsidiary of EPI created for the sole purpose of constructing and owning the Extension pipeline, this entity will have greater access to capital markets than Enbridge Energy (through its publicly-traded parent Enbridge Energy Partners, LP). *Id.* However, the Extension pipeline will be operationally and financially integrated with the Lakehead System, and the tariff rate mechanism is designed to have the same ultimate effect on shippers as if the line were owned directly by Enbridge Energy. In other words, the intent is for the use of this separate financing vehicle to have no impact of any kind on shippers.

As the Douvris Affidavit describes, to achieve the effect of making this corporate arrangement essentially immaterial to the shippers, a joint tariff rate mechanism will be employed on the following terms. The subsidiary which will own the Extension pipeline and be the common carrier entity with respect to that segment, will post a local tariff rate from Flanagan to Patoka based on the full cost of service of the new line (using the methodology agreed upon in this Offer of Settlement, which involves use of the Commission's Opinion 154-B methodology with various stipulated inputs as described above). Douvris Aff., Exhibit VI, at ¶ 7. In accordance with 18 C.F.R. § 342.3(d)(5), that initial cost-of-service rate will be the ceiling rate for the local movement on the new line. Enbridge Energy will post a discounted joint tariff, resulting in joint rates from the U.S.-Canada border to Patoka and from Clearbrook to Patoka equal to the agreed-upon rates under this Offer of Settlement. The agreed-upon joint rate from

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the terms of the Offer of Settlement, the actual surcharge will be based on the most current estimates at the time of commencement of service and will be trued-up annually thereafter to reflect actual costs and volumes.

the Border to Patoka is estimated to be equal to 123% of the Border-to-Flanagan rate in effect at any given time, based on the proportional additional distance from Flanagan to Patoka.[16] A similarly distance-based joint rate will apply from Clearbrook to Patoka. From a shipper's point of view, the only relevant rate will be the joint rate, which will be identical to the rate that Enbridge Energy would charge if it owned the Extension pipeline directly.

V. Procedures

As with the original Offer of Settlement that resulted in the *Facilities Surcharge Order*, Enbridge Energy proposes that the Commission follow its Rule 602 procedures for processing this Offer of Settlement. In particular, parties seeking to comment on any aspect of the proposed settlement should be required to do so within 20 days of the date of the filing of this Offer of Settlement (Rule 602(f)(2)). Reply comments would then be due 10 days later. Following receipt of comments and reply comments, if any, the Commission should proceed expeditiously to consider this Offer of Settlement, as requested above.[17]

CONCLUSION

For the reasons set forth above, Enbridge Energy respectfully requests that the Commission approve this supplemental agreement under the Facilities Surcharge framework pursuant to 18 C.F.R. § 385.602 and permit the Southern Access Mainline Extension component of the Facilities Surcharge to take effect at such time as the relevant facilities are placed in

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[16] In other words, as explained in the Douvris Affidavit, Exhibit VI, at ¶ 9, the distance from Flanagan to Patoka is 178 miles. The 123% figure is based on the estimated length of pipeline that is being laid from Flanagan to Patoka compared to the distance from the Border to Chicago. Based upon this analysis, it was estimated that the distance from Flanagan to Patoka would be 23% of the distance from Border to Chicago. Once construction is complete, the actual distance of the Extension pipeline will be used to determine the final percentages.

[17] For convenience, a form of Notice of Settlement is attached as Exhibit VII.

service, as requested herein.[18] Enbridge Energy further requests that the Commission provide expedited treatment of this Offer of Settlement to the extent possible, to avoid any unnecessary delays in the construction schedule for this important infrastructure project.

Respectfully submitted,

Steven Reed
Cynthia Quarterman
John Clopper
STEPTOE & JOHNSON LLP
1330 Connecticut Ave., N.W.
Washington, D.C. 20036

Counsel for Enbridge Energy, Limited Partnership

September 1, 2006

[18] Enbridge Energy requests that the Commission waive the filing requirements under 18 C.F.R. §§ 342.1, 342.3(a), and 342.4 to the extent necessary to facilitate the filing of this proposed surcharge. The Commission's approval of this Offer of Settlement will not constitute approval of, or precedent regarding, any principle or issue settled.

INDEX OF EXHIBITS

Tab

EXHIBIT I

SOUTHERN ACCESS MAINLINE EXTENSION SURCHARGE TERMS

1. The proposed Southern Access Mainline Extension will consist principally of construction of a new 36-inch pipeline, which will extend the Lakehead System from Flanagan to Patoka, Illinois. This project is initially expected to provide approximately 400,000 barrels per day of heavy crude petroleum capacity to the Patoka hub.

2. Enbridge Energy, Limited Partnership ("Enbridge Energy") proposes to recover the cost of service of the Southern Access Mainline Extension through a surcharge (the "Southern Access Mainline Extension Surcharge" or "Surcharge") to be included in the systemwide rates of Enbridge Energy in accordance with Enbridge Energy's overall rate design. The Surcharge would be included in the existing Facilities Surcharge that is added to the indexed base rates and other existing surcharges currently in effect in Enbridge Energy's rates, and would not itself be subject to indexing.

3. The Surcharge will be calculated on a cost of service basis and trued-up annually in the same manner as the existing SEP II surcharge in Enbridge Energy's rates. In particular, Enbridge Energy proposes to file the Southern Access Mainline Extension Surcharge at such time as the relevant facilities go into service, based on an estimate of the first year's projected costs and throughput volumes. Thereafter, on April 1 of each succeeding year, Enbridge Energy will adjust the Surcharge to true-up the prior year's estimated costs and throughput volumes to actual data and to reflect the projected costs and throughput volumes for the then-current year. The Surcharge will remain in effect for 30 years (the projected depreciable life of the new facilities). Enbridge Energy shall perform a final true-up within three months after the expiration of the 30 year period. If the final true-up discloses a difference between the estimated

costs and throughput volumes and the actual data, such difference (negative or positive) shall be recovered or credited on throughput volumes over the following twelve-month period.

4. For purposes of the cost of service calculation, Enbridge Energy will use the FERC's Opinion No. 154-B methodology, but employing a stipulated capital structure that will remain fixed at 55% equity, 45% debt. The stipulated annual depreciation rate will be fixed at 3.33%. The stipulated cost of debt for each year will be the weighted average long-term cost of debt of Enbridge Energy Partners, L.P. at the end of the prior calendar year. The stipulated cost of equity will be fixed at a 9% real rate of return plus inflation. The inflation rate used will be the current year CPI-U as determined from time to time in accordance with the Opinion 154-B methodology. The tax allowance component of the cost of service will be determined each year in accordance with the FERC's tax allowance policy in effect in such year. All incremental operating costs, property or similar taxes, and fuel and power expenses associated with the Southern Access Mainline Extension will be included in the cost of service.

5. The cost of service will be credited with the incremental revenue associated with new capacity available from Flanagan to Patoka. The credit is estimated to be 23% of Enbridge Energy's Canada/U.S. Border to Chicago rates multiplied by the volumes that travel down the Extension. The estimated distance from Flanagan to Patoka (178 miles) is 23% of the distance from the Border to Chicago (790 miles). The percentage is, at present, an estimate, and may change based on actual distance once the Extension is constructed and placed into service.

6. Enbridge Energy also intends to file joint rates for movements from the Canada/U.S. Border to Patoka and Clearbrook, Minnesota to Patoka. The tariff rate from the origin point to Patoka will be determined by multiplying (i) the filed local rate from each respective origin point to Chicago by (ii) the ratio that the origin point to Patoka distance bears to

the origin point to Chicago distance. For example, the distance from the Canada/U.S. Border to Patoka is estimated to be 123% of the distance from the Border to Chicago. Accordingly, for movements from the Border to Patoka, the joint tariff rate is estimated to be 123% of the local tariff rate for movements from the Border to Chicago. Similarly, the distance from Clearbrook to Patoka is estimated to be 127% of the distance from Clearbrook to Chicago. Accordingly, for movements from Clearbrook to Patoka, the joint tariff rate will be 127% of the local tariff rate for movements from Clearbrook to Chicago. These percentages are estimates that may change based on the actual distance once the Extension is constructed and placed in service.

CAPP

CANADIAN ASSOCIATION
OF PETROLEUM PRODUCERS

July 17, 2006

Rick Sandahl
Vice President, Market Development
Enbridge Pipelines Inc.
3000, 425 - 1 Street S.W.
Calgary, Alberta T2P 3L8

Dear Mr. Sandahl:

Re: Enbridge Pipelines' Southern Access Extension Project: Flanagan-to-Patoka Pipeline

This letter confirms the support of the Canadian Association of Petroleum Producers (CAPP) to have Enbridge Pipelines Inc./Enbridge Energy, Limited Partnership (Enbridge) develop the Southern Access Program Extension pipeline from Flanagan to Patoka (the "Extension").

Over the past several months, Enbridge and CAPP have discussed the above-referenced project, exchanged information and assessed the implications of various project options related to pigging, tankage, power, pipeline size and tolling. The following points summarize CAPP's position related to the Extension, based on the information discussed.

1. The Extension project will be built using 36 inch diameter pipe.

2. The Extension pipeline needs to be capable of receiving upstream flows from the Southern Access system that avoid potential breakout into tankage at ex-Superior flow rates at or below 800,000 barrels per day (b/d). As discussed, Enbridge will include facilities to facilitate the use of collapsible 42/36 inch pigs between the Southern Access upstream system and the Extension.

3. The ability to avoid breaking out some of the batches at Flanagan will result in savings to the overall project costs because of the reduced need to develop breakout tankage.

4. Enbridge Energy, Limited Partnership will recover the cost of service through the use of the existing Facilities Surcharge (the "Surcharge") mechanism, as approved by the Federal Energy Regulatory Commission (FERC) on June 30, 2004; and, will include the Surcharge as part of the overall Enbridge Lakehead system tolls (as further described in #5 below).

2100, 30 – 7th Ave. S.W.
Calgary, Alberta
Canada T2P 3N9
Tel (403) 267-1100
Fax (403) 261-4622

905, 235 Water Street
St. John's, Newfoundland
Canada A1C 1B6
Tel (709) 724-4200
Fax (709) 724-4225

Email: communication@capp.ca Website: www.capp.ca

5. The Surcharge will be established using a methodology consistent with the terms agreed upon for the Southern Access Expansion project, as per Appendix 1 in the reference document entitled: *The "Southern Access" Mainline Expansion/Extension Program*. Annual tolls for the Extension will be set as part of the overall distance-based Lakehead system toll design based on the initial capacity of the Extension (about 400,000 b/d) with any volume related revenue shortfalls collected as part of the annual true-up for the Surcharge.

6. The completion date for the Extension will be integrated with the upstream Southern Access Expansion project phases and will be scheduled for in-service Q1:2009, along with the upstream facilities.

CAPP understands that Enbridge Energy, Limited Partnership will submit an "Offer of Settlement" to the FERC seeking approval for the Southern Access Extension Surcharge. Furthermore, CAPP authorizes Enbridge to submit this letter to the FERC in connection with the "Offer of Settlement" to convey CAPP is in agreement with the proposed tolling and use of the Facilities Surcharge mechanism for the Southern Access Extension project.

Should this letter require further clarification or should any of the points need further discussion, please contact me at (403) 267-1137.

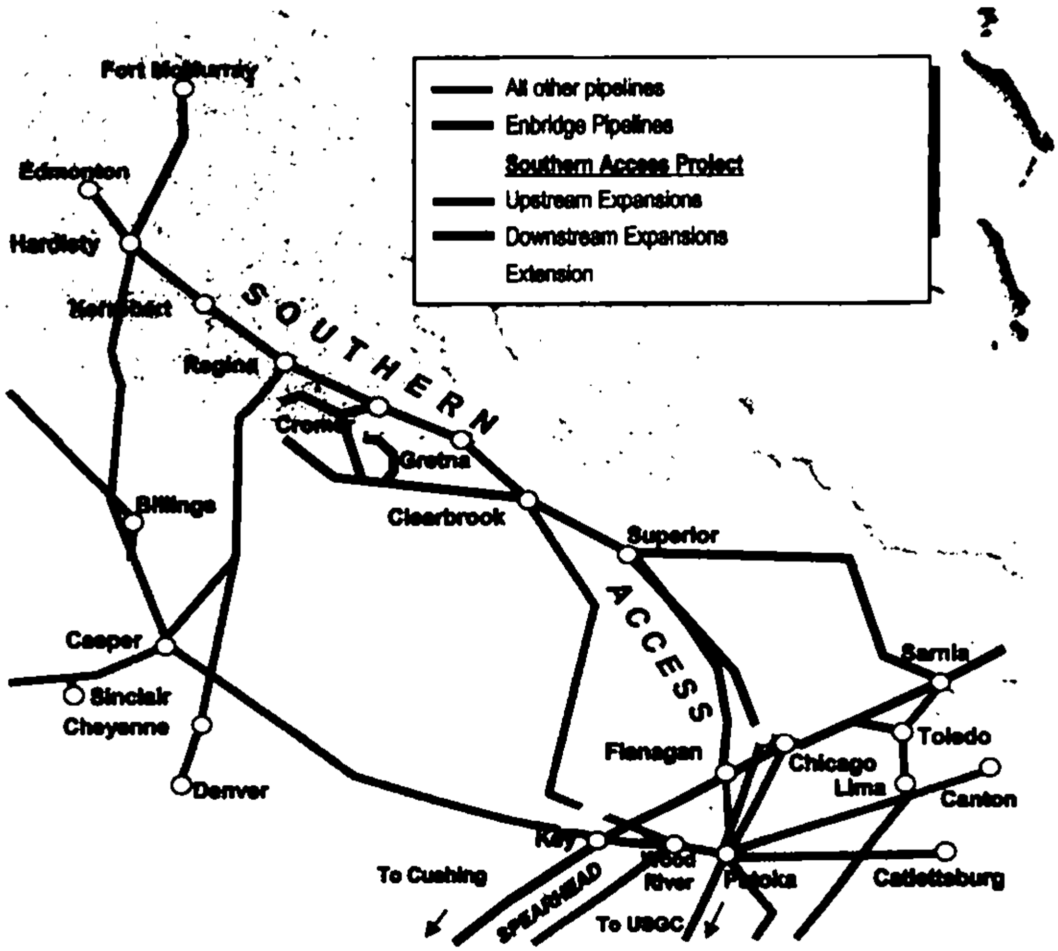
Sincerely,

Onno DeVries
General Manager, Oil Sands and Oil Markets

cc: W. Schrage
L. Varsanyi

Exhibit III

Map of Southern Access Project



UNITED STATES OF AMERICA
BEFORE THE
FEDERAL ENERGY REGULATORY COMMISSION

Enbridge Energy, Limited Partnership	)))	**Docket No. OR06-_____**

Affidavit of Wilf Schrage
In Support of Offer of Settlement

Wilf Schrage, being first duly sworn, states as follows:

1. I have been employed by Enbridge Pipelines Inc. since 1976 and am currently Director, Capacity Development, in which position I am responsible for business development activities related to the company's mainline pipeline system. I am providing this affidavit in support of the Enbridge Energy, Limited Partnership ("Enbridge Energy") Offer of Settlement related to the proposed Southern Access Extension project. I have responsibility for the commercial development of this project, which will extend service through the Lakehead System to the market hub at Patoka, Illinois.

2. Enbridge Energy operates the U.S. portion of the Enbridge System, which is a major crude oil pipeline system providing transportation of Western Canadian oil to the U.S. Midwest and points in Eastern Canada and New York State. The Canadian portion of the Enbridge System is operated by Enbridge Pipelines Inc. ("EPI") and is regulated by the National Energy Board ("NEB") in Canada. The U.S. portion, which is commonly referred to as the "Lakehead System," is operated by Enbridge Energy subject to this Commission's jurisdiction.

3. Enbridge Energy's Offer of Settlement is supported by the Canadian Association of Petroleum Producers ("CAPP"). CAPP's letter of support for the Extension project forms part of this filing and is attached as Exhibit II to the Offer of Settlement. CAPP represents the upstream oil and natural gas industry in Canada and its 150 member companies produce more

than 95% of Canada's crude oil. CAPP acts on behalf of its members to ensure fair pipeline transportation charges and tariffs. CAPP fulfills this mandate through the work of a number of committees, including a Crude Oil Pipeline Expansion Committee and Crude Oil Committee, that report their findings and recommendations to an Executive Policy Group. These committees all reviewed the Southern Access Extension Program.

4. Based on the substantial capital investments currently being made in new facilities to develop Western Canada's abundant oil sands resources, as well as the continuing development of Canadian heavy oil reserves, Enbridge Energy anticipates a major increase in the supply of Canadian crude oil available for export to U.S. markets.

5. As discussed in the Affidavit of Mr. Juan Garcia (Exhibit V to the Offer of the Settlement), oil production in the Western Canadian Sedimentary Basin ("WCSB") in 2005 was approximately 2.2 million barrels per day. Mr. Garcia demonstrates that the general consensus is that basin production will grow between 77% and 101% by 2015.

6. Mr. Garcia's forecast shows that in 2005 production of WCSB crude was approximately 2.2 million barrels per day. Of that, approximately 0.8 million barrels per day was delivered in Canada, with the remaining 1.4 million barrels exported to the U.S. (The Enbridge system moved approximately 64% of Canadian exports to the U.S.) Because Canadian demand for WCSB crude is expected to remain relatively flat until 2015, some 97% of the forecast growth in WCSB crude oil production to 2015 is forecast to be available for export.

7. As a result of the forecasted increase in overall supply, shippers approached Enbridge requesting it to identify projects that would increase capacity and develop new markets. Although there are existing pipelines serving Patoka, none of those existing pipelines has adequate capacity to handle the projected increase in volumes of Canadian oil seeking access to Patoka. The proposed extension of the Lakehead system in the U.S., which is the subject of this

Offer of Settlement, is a significant part of a larger project known as the Southern Access Program that was conceived to address the need to transport the forecasted surge in Canadian crude oil imports to the U.S.

8. The Southern Access Program as a whole involves a coordinated capacity expansion and extension of the Enbridge system from Hardisty, Alberta to points in the U.S. Midwest. The first phase of that Program, which is referred to as the Southern Access Mainline Expansion ("Expansion"), centers on the construction of a new, 42-inch diameter pipeline (designated as "Line 61") between Superior, Wisconsin and Flanagan, Illinois along with associated upstream modifications of the system (both in Canada and the U.S.) to balance the expanded capacity created by the new Line 61. At Flanagan, Line 61 will interconnect with the Spearhead Pipeline, which currently flows from Chicago to Cushing, Oklahoma (having been reversed in 2005-06 from its former Cushing to Chicago service). As part of the Expansion project, the segment of the Spearhead Pipeline from Flanagan to Chicago will be reversed again to permit volumes reaching Flanagan to be directed either to Chicago or Cushing. The Expansion will initially result in an increase in capacity for deliveries to Flanagan of 400,000 barrels per day ("b/d"). The 400,000 b/d of initial capacity of the new 42-inch Line 61 between Superior, Wisconsin and Flanagan, Illinois can be expanded incrementally up to 1,200,000 b/d at relatively low cost through installation of additional pumping capacity.

9. The Southern Access Mainline Extension, involves the construction of approximately 178 miles of 36-inch pipeline from Flanagan to Patoka, Illinois, extending service to that market hub. Once completed, the Extension will provide approximately 400,000 b/d of additional capacity (based on a 100% heavy crude slate) to these markets. The 400,000 b/d of initial capacity of the Extension can be expanded incrementally up to 800,000 b/d at a relatively low cost through installation of additional pumping capacity.

10. As described further below, the Southern Access Extension project will provide a number of direct benefits to shippers and producers of the crude oil transported by Enbridge Energy.

11. The most direct shipper benefit arising from the Extension is a projected system-wide reduction in tariff rates that would otherwise apply on the Lakehead system in future years. This is primarily due to increased system-wide flow rates resulting from the Extension. Rate issues are discussed in the Affidavit of Mr. Peter Douvris (Exhibit VI to the Offer of Settlement). As shown by Mr. Douvris, to the extent that the Extension flow rate of 400,000 b/d results in 400,000 b/d of incremental barrels flowing through the Lakehead system, the Border to Chicago rate will be reduced by as much as $0.030 per barrel of heavy crude and the Border to Clearbrook rate will be reduced by as much as $0.006 per heavy barrel. These rate reductions are applicable to all shippers on the Lakehead system, regardless of whether they use the Extension.

12. As described in detail below, other important benefits of the Extension project include improved marketplace crude distribution, improved crude quality and reduced transit time. As described in his affidavit, Mr. Garcia has commissioned Muse Stancil & Co., a respected energy consulting firm, to quantify these benefits where possible. The Muse Report is included as Attachment B to the Garcia Affidavit (Exhibit V to the Offer of Settlement).

13. Regarding the first benefit evaluated by the Muse Report, the Extension will increase the access of Western Canadian crude to important markets. The terminus of the Extension pipeline at Patoka is the point where the Capline, Exxon/Mobil, Capwood, Woodpat, Marathon, Mustang and Chicap oil pipeline systems intersect. The Extension pipeline to Patoka provides WCSB crude with ready access to approximately 500,000 b/d of Marathon refining capacity, plus access to refining centers at Wood River, Illinois (300,000 b/d capacity) and Lima,

Ohio (160,000 b/d capacity). Shippers on the Extension could also access refineries located on the U.S. Gulf Coast via the 66,000 b/d capacity ExxonMobil pipeline system, as well as having alternative routes to reach refineries in Chicago, Detroit and Toledo.

14. Refiners in markets served through Patoka will see tangible benefits from increased access to WCSB crude supply including greater diversity of supply, greater security of supply, and increased access to a plentiful resource that is attractively priced relative to offshore crudes imported through the Gulf Coast.

15. The second benefit is potential improved crude quality. By making it possible to increase throughput on Line 61, the Extension is expected to result in an increase in overall crude quality at a lower cost than would otherwise be incurred. At throughput volumes below 500,000 b/d, Line 61 will be in a state described as "laminar flow." A line in laminar flow is more likely to encounter intermingling of different grades of crude oil at the interface between batches of crude. To avoid those quality issues, Line 61 will initially be batch-pigged, meaning that a mechanical device (known as a "pig") will be inserted between 120,000 bbl size batches to minimize cross-batch contamination.

16. Once Line 61 reaches 500,000 b/d of throughput, it will no longer be in "laminar flow" but will enter the state referred to as "turbulent flow," which is a hydraulic pattern that minimizes cross-batch contamination without the need for batch-pigging. In the absence of the Extension, the 42-inch Line 61 will be limited to its initial capacity of 400,000 b/d unless and until additional take-away capacity is available at Flanagan. With the Extension in place, however, the take-away capacity will exist to expand capacity of Line 61 from Superior to Flanagan.

17. The annual pigging costs for Line 61 at a flow rate of 500,000 b/d are estimated to be $10 million. These pigging costs are borne by all shippers but the expenditure will not be necessary if flow rates exceed 500,000 b/d on Line 61.

18. Another aspect of crude quality is that, during typical pipeline operations, a variety of crudes are transported in batches through the same pipeline, creating what is commonly referred to as "transmix" at the interface of the differing crude batches. Transmixing contamination is an issue that all pipelines address, but its impact is more pronounced when the pipeline transports crudes with wider degrees of property variability. For instance, transmixing in a pipeline transporting solely light crudes is less of a concern than in a pipeline serving both light and heavy crude suppliers due to the increased dissimilarity of the crudes' properties in the latter case.

19. Currently, both of the Enbridge pipelines that connect Superior to the Chicago area (Lines 6A and 14) provide light and heavy crude transportation service. As a result, crude contamination levels on the two lines are relatively substantial, negatively impacting the values of light crudes transported on the lines.

20. Based on current projections, the additional volumes associated with the Extension will allow Line 14 to be completely devoted to light crude service since Southern Access and Line 6A will be capable of providing the necessary capacity to accommodate the displaced heavy crude volumes from Line 14. Rationalization of volumes across crude grades along these two systems together with the rearrangement of capacity on the Enbridge Energy system will significantly improve the quality of light crudes transported to Chicago and Patoka. The completion of the Extension will also result in two pipeline systems connecting Chicago to the Patoka hub (the other being the Mustang pipeline). The Muse Report estimates the economic

benefit of the segregation of light crude supply over the first six full years of operation of the Extension as $9.1 million (2006 dollars) per year.

21. The third benefit evaluated by the Muse Report results from increasing flow rates on Line 61 above 400,000 b/d, which is only possible with the Extension, is a reduction in crude transit times. Increasing the flow on the 42-inch Line 61 from 400,000 b/d to 600,000 b/d decreases the transit time by 3.3 days, and increasing the flow rate to 800,000 b/d decreases the transit time by a further 1.6 days. *See* Muse Report, at 19 - 20.

22. The transit time improvements not only increase operational efficiency, but they provide financial benefits as well. The most appropriate means of illustrating this benefit is to examine the reduction of shippers' working capital requirements that results from the decreased transit times. Muse has calculated the annual savings accruing to shippers as a result of the improvement in working capital to grow from approximately $10 million in 2010 to $25 million by 2015.

23. Completion of the Extension to the Patoka hub also enhances system flexibility in the event of operational issues with an existing line, including potential unscheduled maintenance or natural disasters. For example, if one of the existing lines from Superior to Chicago (*i.e.*, Line 6A or 14) were temporarily out of service, additional crude could be routed through Line 61 and the Extension to Patoka and then back to Chicago through the Chicap system. Alternatively, if the Minnesota Pipeline (which transports crude oil to Minneapolis from a connection with the Lakehead system at Clearbrook, Minnesota) were temporarily out of service, additional crude could be routed to Patoka and then back via Wood River, Illinois and the Wood River Pipeline to Minneapolis.

24. The Extension is also expected to create significant operational benefits that will accrue to all Lakehead shippers. The Extension will help avoid a "bottleneck" at Chicago by

creating an additional outlet for crude oil destined for markets south of Chicago. A bottleneck would affect shippers throughout the System through increased prorationing of capacity at times of high demand. The Extension will also provide benefits to shippers on the Lakehead system due to the provision of additional take-away capacity at Flanagan. Currently, the Spearhead Pipeline (if expanded in both directions through additional pumping capacity) could provide approximately 400,000 b/d of capacity out of Flanagan (*i.e.*, 200,000 b/d heading southwest to Cushing and 200,000 b/d heading northeast to Chicago). This is consistent with the initial planned capacity of Line 61 from Superior-to-Flanagan (400,000 b/d). However, the 42-inch Superior-to-Flanagan line will have the capability of being expanded in increments up to as much as 1,200,000 b/d of capacity through additional pumping facilities. The additional downstream capacity represented by the Extension will unlock that potential upstream capacity.

25. The Extension will afford Midwest refiners access to 400,000 b/d of incremental WCSB crude supply. As Mr. Garcia discusses in his Affidavit, market dynamics are making WCSB crude attractive as a supply source vis-à-vis other foreign sources for refiners in the U.S. Midwest. The Muse Report notes that several Midwestern refineries have announced plans to undertake significant capital investments to modify their refinery facilities in order to process increasing amounts of WCSB crude. Muse Report, at 9. Frontier, Marathon, Sunoco, ConocoPhillips, and BP have all announced plans to modify their refineries in the Midwest, which could result in additional demand of over 500,000 barrels per day of WCSB production. *See* Attachment to Muse Report, at Attachment 1. Refiners' modifications to their current configurations are expected to be in-service between 2009 and 2015.

26. The construction of the Extension also provides direct access to Patoka from Superior. This could cause heavy crude oil volume flows to naturally realign onto Line 61 and the Extension and away from Line 6A/Mustang. This realignment of volumes frees-up 100,000

b/d of capacity for shippers desiring access to Chicago and eastern markets. Similarly, a realignment of Mustang to all-light service, were that to occur, would increase the capacity of that system and improve the delivered light crude quality at Patoka.

27. The Extension facilities will be built and owned by a subsidiary of Enbridge Pipelines Inc. ("EPI") to take advantage of the favorable capital markets available to the parent entity. For purposes of calculating the Extension surcharge on the Lakehead system (as described more fully in Mr. Douvris' Affidavit), Enbridge will employ the same stipulated cost of service parameters that were utilized to calculate the Southern Access Expansion surcharge recently approved by the Commission. As explained by Mr. Douvris, the Extension surcharge will be calculated as though the Extension were part of the Lakehead system and the presence of the EPI subsidiary will effectively be invisible to the shippers.

Wilf Schrage

Wilf Schrage

Subscribed and sworn to before me this 31 day of August 2006, by Wilf Schrage.

Andre B. Kerkovius

Andre B. Kerkovius
A Notary Public in and for the Province of Alberta

UNITED STATES OF AMERICA
BEFORE THE
FEDERAL ENERGY REGULATORY COMMISSION

Enbridge Energy Limited Partnership	)))	**Docket No. OR06-___**

Affidavit of Juan D. Garcia in Support of Offer of Settlement

Juan Garcia, being first duly sworn, states as follows:

1. I have been employed with Enbridge Pipelines Inc. ("Enbridge") since May 1997, and I currently hold the position of Manager, Commodity Forecasting. I am responsible for developing short term and long term supply and demand crude oil forecasts for Western Canada, which are used by Enbridge and its affiliates for planning purposes, including system design and capacity expansion optimization. I am providing this affidavit in support of Enbridge Energy, Limited Partnership's ("Enbridge Energy's") Offer of Settlement seeking approval to implement an additional component of the Facilities Surcharge to permit recovery by Enbridge Energy of a portion of the costs of a planned new pipeline from Flanagan, Illinois (the "Southern Access Mainline Extension" or "Extension pipeline").

2. My affidavit will address two points. First, the forecasts that have been developed illustrate that between 2005 and 2015 the Western Canadian Sedimentary Basin ("WCSB") crude oil supply is expected to almost double, thereby requiring access to extended markets. Second, the refining market that will be served by the Southern Access Extension Project has significant capacity and, in light of the attractiveness of Canadian crude, it is reasonable to assume that the Southern Access Extension will be increasingly utilized.