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DEPARTMENT OF TREASURY  
LANSING

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**DATE:** December 11, 2007

**TO:** State Tax Commission

**VIA:** Kelli Sobel, Executive Secretary

**FROM:** T. J. Schnelle, Manager  
Commercial/Industrial/Utilities Valuations Section  
Assessment & Certification Division

**SUBJECT:** Table K and Enbridge (Lakehead) pipelines

**EXECUTIVE SUMMARY AND INTRODUCTION.**

The State Tax Commission has requested that the Assessment and Certification Division (ACD) provide its opinion regarding the validity of the Commission's personal property valuation multiplier Table K, which is recommended to assessors for use in valuing fluid pipeline assets. This request was prompted by the contention of Enbridge Energy, LP (hereafter "Enbridge"), and the Associated Petroleum Industries of Michigan, that Table K fails to accurately value fluid pipelines in Michigan. Further, Enbridge asserts that the Table fails to accurately value its fluid pipelines, in particular. Dave Berquist of the ACD Staff provided significant technical support in the preparation of this Memorandum.

Staff recommends that there is every indication that the current Table K values Enbridge's pipeline assets in Michigan in a reasonable manner, and perhaps even conservatively. Staff recommends that Table K should not be modified until and unless further evidence is obtained so that further study can occur.

The entire Enbridge pipeline system has 5000 miles of mainline pipe in Canada and 3500 miles of mainline pipe in the United States. This includes the 1,900 mile Lakehead System. It delivers 2.2 million barrels of crude oil and oil products a day, 97% of which originates in Canada. Enbridge was formed to own and operate the Lakehead System in 1991. Line 5 extends from Superior, Wisconsin, across the Upper Peninsula, crosses the Straits to the Lower Peninsula, and ends in Marysville. It was built in 1953. Line 6B was built in 1969 and extends from Gary, Indiana to Marysville, then crosses the border to Sarnia. Michigan has 769 miles of 30" diameter pipe and 8 miles of 20" pipe.

Pursuant to Section 3 of Article IX, of the Michigan Constitution of 1963, and MCL 211.8, Enbridge's fluid pipelines are locally assessed, by the city or township in which they are located. In Michigan, locally assessed property is valued based on the "True Cash Value" of the real and

tangible personal property, without considering intangible influences on value that are not directly associated with the particular asset being valued. Notwithstanding the fact that the Brent Eyre appraisal generally supports the reliability of Table K, Staff has concludes that the appraisals presented in the Enbridge/Wakeshma Township litigation are of little or no probative value in evaluating the reliability of Table K, based on the fact that both the Tegarden and Eyre appraisals sought to value the pipeline on a unitary basis, instead of valuing the pipeline property itself, using recognized asset appraisal techniques.

The use of a unitary valuation procedure, followed by an allocation process applied to the derived unitary value, is usually inappropriate for valuing locally assessed real and tangible personal property, for the reason that the value of the real and tangible personal property may not be influenced, or may only be minimally influenced by changes in enterprise value of the asset's owner. Some real and tangible personal property assets of an enterprise may actually be increasing in value while the value of the enterprise which owns and/or uses the assets declines.

Instead, Staff believes that it is necessary to examine the property itself, to determine its physical, functional and economic utility and investigate market data, and determine the rental income, expenses, occupancy (vacancy) rates, age, physical condition, local economic conditions, future prospects and obsolescence associated with the Michigan property itself.

Although a unitary method has been used to develop multiplier tables for Michigan electric and gas distribution utilities, the regulatory and factual circumstances surrounding the Enbridge pipeline are significantly different. The Enbridge pipeline is not a closely regulated, single-state utility, as are Michigan's electric and gas distribution utilities. Some sections of pipeline outside the State of Michigan are quite new, with high booked costs, while other sections, such as those in Michigan, are relatively old chronologically with substantially lower booked costs, but may have a lower effective age, may continue to be used indefinitely and may have a high level of utilization, perhaps, even a higher level of utilization, than newer lines. Further, the interstate fluid pipeline system, although it is nominally regulated, is not subject to rate-base regulation and current regulatory practices permit annual increases in rates without requiring a cost-of-service, plus fair return, analysis.

It appears that Table K currently values Enbridge's pipeline assets in Michigan at between 8.1% of replacement cost, at the high range of estimated replacement cost, and 18.5% of replacement cost, at the low range of estimated replacement cost. If the proposed Enbridge table were adopted, Staff estimates that it would value Enbridge's pipeline assets in Michigan at between 3.1% of replacement cost, at the high range, and 6.9% of replacement cost, at the low range. Staff believes that the value developed using Enbridge's proposed table more closely approximates a salvage value than it does a functional asset value.

Enbridge has billions of dollars of projects planned that will transport synthetic crude oil produced from tar sands in Alberta across Canada to Minnesota, then through Wisconsin to Illinois. If original (historical) construction costs are used as the basis for allocating a unitary value to Michigan, the result will be to allocate value away from Michigan to states with more recent original costs (expenditures for equipment). Staff does not believe that such an allocation methodology, which was used fully or partially by both appraisers, is justified. Instead there

should have been an analysis of the usefulness and/or profitability of the Lakehead System in Michigan.

Staff further expresses reservations concerning a mathematical inconsistency contained in the Consent Judgment and concerning the allocation method which is now being proposed for use within the State of Michigan to divide the value among the assessment jurisdictions.

## **CONSTITUTIONAL AND LEGAL FRAMEWORK.**

Article IX, Section 3, of the Michigan Constitution of 1963 directs the Michigan Legislature to “provide for the uniform general ad valorem taxation of real and tangible personal property not exempt by law”... In contrast, Article IX, Section 5 of the Michigan Constitution directs the Michigan Legislature to “provide for the assessment by the state of the property of those public service businesses assessed by the state at the date (the) constitution becomes effective” ... It has been recognized that the property assessed under Section 3 is limited to real and tangible personal property, while the property assessed to public service businesses properly accounts for both the positive and negative valuation influences of business intangibles., See Michigan Bell Telephone Co. v. Department of Treasury, 445 Mich. 470; 518 NW2d 808 (1994). In the Michigan Bell case, the Supreme Court expressly approved a unitary valuation methodology for property assessed under Section 5, and distinguished the valuation method for such property from the valuation method used to value real and tangible personal property under Section 3. The Court in Michigan Bell also observed, on page 482, that:

It is noteworthy that use of the unit concept in valuing utility property does not always, or necessarily result in an increase in the assessment. The effect of appraising the property as a unit -- including intangibles -- can either enhance or diminish the value of the tangible property.

(Recent amendments to 1905 PA 282 have now excluded any intangible influences in valuing telephone company property.)

Pursuant to Section 3 of Article IX, Enbridge’s fluid pipelines are locally assessed, by the city or township in which they are located, and are valued based on the “True Cash Value” of the real and tangible personal property interests associated with the pipeline. The relevant part of Section 8 of the General Property Tax Act (MCL 211.8), provides, in reference to the assessment of pipeline assets (and in reference to the assessment of other locally assessed utilities), that:

(Th)e mains, pipes, supports, and wires of these companies, including the supports and wire or other line used for communication purposes in the operation of those facilities, and the rights of way and the easements or other interests in real property by virtue of which the mains, pipes, supports, and wires are erected and maintained, shall be assessed as personal property in the local tax collecting unit where laid, placed, or located.

Section 27 of the General Property Tax Act (MCL 211.27), which defines “True Cash value”, states, in part, that:

As used in this act, “true cash value” means the usual selling price at the place where the property to which the term is applied is at the time of assessment, being the price that could be obtained for the property at private sale.... In determining the true cash value, the assessor shall also consider the advantages and disadvantages of location; quality of soil; zoning; existing use; present economic income of structures, including farm structures; present economic income of land if the land is being farmed or otherwise put to income producing use; quantity and value of standing timber; water power and privileges; and mines, minerals, quarries, or other valuable deposits known to be available in the land and their value.

### **THE ENBRIDGE SYSTEM.**

The Enbridge pipeline in Michigan is commonly known as the “Lakehead System” or “Lakehead.” The entire Enbridge pipeline system has 5000 miles of mainline pipe in Canada and 3500 miles of mainline pipe in the United States. This includes the 1,900 mile Lakehead System. It delivers 2.2 million barrels of crude oil and oil products a day, 97% of which originates in Canada. Enbridge was formed to own and operate the Lakehead System in 1991. Its pipeline personal property in Michigan has an original cost of \$158 million. Line 5 extends from Superior, Wisconsin, across the Upper Peninsula, crosses the Straits to the Lower Peninsula, and ends in Marysville. It was built in 1953. Line 6B was built in 1969 and extends from Gary, Indiana to Marysville, then crosses the border to Sarnia. Michigan has 769 miles of 30” diameter pipe and 8 miles of 20” pipe. At first the lines carried low and high viscosity crude oil to refineries in Michigan and Sarnia. The shipments of low viscosity oil have decreased because of less domestic and Canadian production. The shipments of high viscosity oil in the Michigan lines have decreased because of off-shore oil being delivered to Sarnia in a different Enbridge company’s pipeline from Montreal beginning in 1999. In 1999 a pipeline was built from Stockbridge Junction to Toledo by a different Enbridge company. It has a capacity of 100,000 barrels a day. Line 6B east of Stockbridge has a capacity of 300,000 barrels a day but delivered less than 200,000 barrels per day in 2005 and 2006. About a third of the oil flowing on the western portion of Line 6B is being sent from Stockbridge to refineries in Toledo, instead of east to Sarnia. The Line 6B lying East of the Stockbridge Junction has received a valuation allowance from the State Tax Commission since 1990.

In 1992 Lakehead Pipe Line Company requested FERC’s approval of proposed accounting adjustments to increase its fixed asset cost for its pipelines, to reflect the revaluation of its properties, based on indications of increased values, reflected by a transfer of properties from Lakehead to Lakehead Partners. The historical accounting numbers are smaller by \$47 million, or 3% less, than the costs reported in the Form 6 at page 213 for year 2006. Enbridge’s representatives state there have been no financial accounting write-downs of the property in Michigan.

Lakehead started recording assets by location in 1998. Vintage year data is available on an account basis back to 1949. In 1954 the additions were \$55.2 million (for Line 5) and in 1969 they were \$25.2 million for Line 6B. Enbridge's web site shows increasing dividends and price per share for the last three years. Its representatives state that its transportation rates are determined through a combination of a settlement with the shippers and annual indexing of base rates at the PPI plus 1.3%.

Staff believes that the Enbridge Pipelines are the only pipelines that carry western Canada's crude oil to the Midwest and Sarnia and that the pipelines are likely to be needed as long as the refineries operate and Canadian crude oil is available. Currently it is unknown how much Canadian production will go to markets in Asia and the west coast of the US or south to refineries in Illinois, Indiana, Oklahoma, and Wyoming, and how much off-shore oil can be brought to Sarnia. However, with the growth in synthetic crude production from the Canadian tar sands and Marathon's announced refinery expansion near Detroit, it appears continued, and even increased, use of Lakehead's lines in Michigan is foreseeable.

Enbridge's 2005 Annual Report shows that none of the major projects that are planned through 2010 are in Michigan. Enbridge has billions of dollars of projects that will transport synthetic crude oil produced from tar sands in Alberta across Canada to Minnesota, then through Wisconsin to Illinois. If original (historical) construction costs are used as the basis for allocating a unitary value to Michigan, the result will be to allocate value away from Michigan to states with more recent original costs (expenditures for equipment). Staff does not believe that such an allocation methodology is justified, for the reason that it does not entail any analysis of the usefulness and/or profitability of the Lakehead System in Michigan.

#### **THE ENBRIDGE PIPELINE LITIGATION CURRENTLY PENDING BEFORE THE MICHIGAN TAX TRIBUNAL.**

Enbridge currently has a significant number of petitions pending before the Michigan Tax Tribunal relating to the value of its Lakehead Pipelines. Until recently, Staff understood from informal contacts with assessors that there would be a lead case, involving Wakeshma Township, Kalamazoo County, and captioned Enbridge Energy Limited Partnership v. Township of Wakeshma, MTT Docket # 0301679. Surprisingly, a Consent Judgment was entered in the case without the taking of proofs.

Since the entry of that Judgment, Enbridge has proposed that the other petitions should be resolved along the same lines as were used to resolve the Wakeshma Township case. The Associated Petroleum Industries of Michigan has also requested that the State Tax Commission review Table K to determine whether its use arrives at a reasonable indication of True Cash Value. In furtherance of this request, Enbridge and/or Wakeshma Township provided Staff with copies of the appraisals prepared in the Wakeshma Township case. The appraisals provided include a 12/31/2003 valuation date appraisal, itself dated November 18, 2004, done on behalf of the Township by Brent Eyre and 12/31/2002 and 12/31/2003 valuation date appraisals which are dated October 21, 2004 and a 12/31/2004 valuation date appraisal which is dated April 5, 2006, that was done on behalf of Enbridge by Tegarden & Associates.

Neither the Michigan Department of Treasury nor the State Tax Commission is a party to any of the pending litigation. Except for a certain valuation allowance that it has recommended to assessors for use in valuing a portion of the Enbridge pipeline lying East of the Stockbridge Junction, the State Tax Commission has not heretofore recommended any adjustment be used in valuing the Lakehead Pipeline. The question that the State Tax Commission has addressed to Staff is whether the Wakeshma Township appraisals provide justification for modifying Table K.

Both the Tegarden and the Eyre appraisals employ a unitary valuation approach. The specifics are as follow:

*The Tegarden & Associates Appraisals.*

Tegarden arrived at final conclusions of value for the entire multi-state pipeline system of \$779 million for 2003, \$797 million for 2004 and \$775 million for 2005. There is no clear indication of the amount of the allocation to Michigan (the allocation instead being directly to Wakeshma Township in the amounts of \$93,859, \$92,605 and \$86,740 for assessment years 2003, 2004 and 2005, respectively), but it appears that the allocation to Wakeshma Township is based on a ratio developed by comparing the relative booked historic (original) costs of the pipeline lying inside, and outside, the Township.

Tegarden reached its conclusion of value by reconciling two separate valuation approaches. The first approach, a cost approach, was conducted by simply using net book value, with minor adjustment, and then applying an additional obsolescence factor to reduce the indication of value by approximately a third more. The additional obsolescence factor was 32.64% for 2003, was 32.84% for 2004 and was 34.78% for 2005. The original booked cost of the fixed assets was stated to be approximately \$1,780 million for 2003, approximately \$1,845 million for 2004 and approximately \$1,915 million for 2005. Further, the deduction for accrued depreciation was stated to be approximately \$605 million for 2003, approximately \$653 million for 2004 and approximately \$704 million for 2005. Application of the previously stated obsolescence factors resulted in an indicated cost approach value of \$796 million for the entire interstate pipeline system in 2003 an indicated cost approach value of \$804 million in 2004, and an indicated cost approach value of \$795 million in 2005. Significantly, the adjustments for obsolescence were computed as an income shortfall from expected return on investment. Staff doubts the reliability of this latter methodology, to the extent that it seeks to obtain an independent cost approach indication of value, for the reason that the adjustment is computed in such a way that it results in a value indication that is closely similar to the income approach. In other words, although the method purports to arrive at an independent indication of value, what it really does, since it relies on much the same net operating income data and required return assumptions as the appraiser's income approach, is bolster the appraiser's income approach, without providing a reliable second indication of value.

Tegarden's second approach, an income approach, is based on a net operating income of \$75 million for the 2003 assessment year (12/31/2002) and \$80 million for the 2004 (12/31/2003) and 2005 (12/31/2004) assessment years. A direct income capitalization approach was used, with capitalization rates of 9.65% in 2003, 10.05% in 2004 and 10.35% in 2005. It is unclear to

Staff how Tegarden's net operating income was determined. For instance, in 2003, Enbridge's Net Carrier Operating Income (according to its FERC report) was approximately \$117 Million but, as stated, the appraiser estimated the net operating income for 2004 at \$80 Million. The appraisal indicates that the income has been stabilized by calculating a 5-year weighted average. The 5 years of net operating income used to determine stabilized net operating income appears to be significantly lower than actual net operating income as indicated by the financial statements. Further, the appraisal states that "(n)et operating income was **computed by the Company on a 100% equity financing basis.**" (Emphasis added.) It appears from the quotation set forth in the previous sentence that the appraiser may have used a net operating income that was derived from an adjustment or adjustments made by the Taxpayer (Enbridge itself).

*The Brent Eyre Appraisal:*

Mr. Eyre arrived at a final conclusion of value for the entire multi-state pipeline system of \$1,275 million for 2004 and an indicated allocation to Michigan of slightly less than \$182.2 Million and an indicated allocation to Wakeshma Township of \$839,966. He reached his conclusion of value by reconciling three separate valuation approaches, a cost approach, a market comparison approach and an income approach. The allocation was made by determining the ratio between the pipeline in Michigan and the pipeline outside Michigan on the bases of both barrel-miles and historic (original) cost, and then weighing the ratios 75% to historic cost and 25% to barrel-miles. The determined ratio by original cost was 10.77% and the determined ratio by barrel-miles was 24.84%. This results in a final Michigan allocation percentage of 14.29%.

In the case of his cost approach, Mr. Eyre used Enbridge's net book value with minor adjustment and reached a conclusion of value of \$1,400.5 million. In the case of his income approach, he obtained both a direct capitalization indication of value and a discounted cash flow indication of value. Under his direct capitalization approach, he used a range of net operating income of between \$91.8 and 93.6 million and a direct capitalization rate of 8.55%. His direct capitalization methodology provided an indicated market value for the pipeline assets of between \$1,073 and \$1,095 million. His discounted cash flow analysis indication of value used a 9.31% discount rate and provided an indication of value that ranged between \$1,102 and \$1,222 million. Finally, in the case of his market comparison approach, he performed what is referred to in unitary valuation terminology as a stock and debt approach, which entails evaluating the securities prices of common stock and long term debt in order derive an indicated enterprise value using data obtained from financial markets that indicates the worth placed on the securities by the financial markets. The Market (Stock and Debt) approach gave an indication of value of \$1,852 million, but Mr. Eyre states he gave less weight to the Cost and Stock and Debt approaches in his final reconciliation.

**STAFF RECOMMENDATION REGARDING THE APPLICABILITY OF THE APPRAISALS DESCRIBED IN THE PRECEDING SECTION AND THE ENBRIDGE/WAKESHMA TOWNSHIP SETTLEMENT STIPULATION AND CONSENT JUDGMENT TO THE DETERMINATION THAT TABLE K PROVIDES A RELIABLE INDICATION OF TRUE CASH VALUE.**

Essentially, Staff has been asked whether, in its estimation, the Settlement Stipulation, the Consent Judgment and/or the appraisals referred to in the preceding Section should cause the State Tax Commission to change Table K. It is the recommendation of Staff that they should not, and that available evidence supports the reliability of the Table.

As stated earlier in this memorandum, the Lakehead Pipeline is valued pursuant to Section 3, Article IX of the Michigan Constitution. As such, the pipeline is valued in the same manner as all other real and tangible personal property, without considering intangible influences on value that are not directly associated with the particular assets being valued. Given this fact, Staff believes that the appraisals presented in the Enbridge/Wakeshma Township litigation are of little or no probative value in evaluating the reliability of Table K. Staff makes this determination notwithstanding the fact that the Brent Eyre appraisal generally supports the reliability of Table K. The Staff determination is based on the fact that both the Tegarden and Eyre appraisals sought to value the pipeline on a unitary basis instead of valuing the pipeline itself using recognized asset appraisal techniques.

The reasons for Staff's concern over the valuation of the pipeline based on unitary valuation techniques is illustrated by several simple examples.

- Would we consider it reasonable to value a Michigan apartment complex, that is owned by a national real estate investment trust, though a process of developing an overall capitalization rate for all the trust's properties nationwide, applying that capitalization rate to the total national rental revenue, and then allocating the total value indication based on the **original costs** of the various properties?
- Would we consider it reasonable to value the Michigan apartment complex described in the preceding bullet point for **less** based on the fact that the real estate investment trust was losing money, or has a low net operating revenue, due to poor management or poor investment decisions in other states?
- Would we consider it reasonable to value the Michigan apartment complex described in the preceding bullet points for **more** based on the fact that the trust was making a bundle of money, or has a high net operating revenue, due to lucky or well-advised investment decisions in other states?
- Would we consider it reasonable to develop a cost approach indication of value of the Michigan apartment complex described in the preceding bullet points that is **lower (or more)** by using the depreciated net book value of the complex for financial accounting purposes as the starting point, rather than starting with reproduction or replacement cost (the recognized methodology of asset appraisal)?
- Would we consider it reasonable to develop a cost approach indication of value of the Michigan apartment complex described in the preceding bullet points that is **lower** based on the fact that the financial markets seem to indicate that the investment trust which owns the complex is failing to realize a level of net operating revenue sufficient to satisfy

the markets (in a manner similar to the income short-fall analysis done in the Tegarden appraisal)?

- Would we consider it reasonable to value the complex for **more**, simply because the same real estate investment trust is realizing a return far in excess of its competitors?
- Would we consider it reasonable to value a speculative investor's advantageously-located, owner-occupied, mortgage-free Michigan office building at a lower market value based on the fact that his company is engaged in developing properties on the fringes of existing development, using highly leveraged financing arrangements, and under a business plan that anticipates that rents will be low initially but will provide high returns several years hence?

Staff believes that the answer to all of these questions is "No."

Instead, we would examine the property to determine its physical, functional and economic utility and investigate market data, and determine the rental income, expenses, occupancy (vacancy) rates, age, physical condition, local economic conditions, future prospects and obsolescence associated with the Michigan complex itself, to arrive at a separate indication of value for that particular Michigan property.

Staff recognizes that treating the above-stated examples as completely analogous in analyzing the value of Enbridge's Michigan pipelines would be an overstatement. Clearly, there is a difference between a stand-alone apartment complex and an interstate pipeline, in terms of the level of interdependency of the various components of the investment portfolio. The petroleum products entering the Michigan pipelines do not magically appear at the State's border, they travel through other sections of the system to get to Michigan. On the other hand, Enbridge's Michigan pipelines should, in the estimation of Staff, be valued based on their particular utility within the system, not on a rote allocation of value of the entire interstate system and, in particular, not based on an allocated portion of the overall value which is calculated based on the original cost of building the Michigan sections, instead of considering the "advantages and disadvantages of location ... (and) existing use; present economic income of structures, ... present economic income of land if ... put to income producing use", as required by the definition of true cash value contained in MCL 211.27. If the revenue of the Michigan section is low, if the expenses are high, if the property is in poor physical or functional condition, if the pipeline is under-utilized for its size, there are recognized real and tangible personal property asset valuation procedures that can be used to determine and/or adjust the value indication. Staff recommends that the Michigan asset, rather than either the entire interstate system or the owner of the assets should, and must, be valued.

As a generalization, the use of a unitary valuation procedure, followed by an allocation process applied to the derived unitary value, is inappropriate for valuing specific real and tangible personal property. This is the case for the reason that the value of the real and tangible personal property may not be influenced, or may only be minimally influenced by changes in enterprise value of the asset's owner. Some real and tangible personal property assets of an enterprise may

actually be increasing in value while the value of the enterprise which owns and/or uses the assets declines.

In practice, there are isolated circumstances where, with careful analysis, the unitary method can be used with some assurance of accuracy, so long as the appraiser is mindful of the differences between asset valuation and enterprise (unitary) valuation. Closely regulated Michigan electric and gas distribution utilities can be valued for mass appraisal purposes with a reasonable degree of accuracy by relying on unitary valuation methods. However, the justification and support for such procedures is found in the fact that, historically, these utilities have been closely regulated under a rate-based regulatory structure, and have asset costs, revenue and expenses segregated for the State of Michigan.

Under rate-based regulation, the rates are set at an amount designed to limit the utilities to a reasonable return on investment plus the annual cost of service. Using net book value (which, after adjustment, is commonly referred to as “rate-base”) in the cost approach is deemed acceptable under such circumstances for the reason that the utility is limited to receiving a reasonable return on its net investment and has no opportunity to earn an entrepreneurial profit (and is largely insulated from the possibility of loss). Essentially, if the utility is closely regulated using rate-base regulation, then the utility’s net book value is an approximation of a cost approach value, simply because any difference between net book and replacement cost is either physical depreciation and functional obsolescence, or is economic obsolescence caused by the limits that regulation has placed on the ability to realize an entrepreneurial profit. Further, the fact that the assets to be valued constitute substantially all the assets of the enterprise, the fact that asset costs, revenue and expenses are separately determined for the State of Michigan alone and the fact that a reasonable return on investment is assured, allows a general analysis of the value of the operating assets simply by valuing the enterprise itself (with some adjustment).

It appears to Staff the regulatory circumstances surrounding Enbridge are significantly different than those which surround a closely regulated, single-state utility. Even if we discount the possibility that the proper unit of valuation should also include the Canadian facilities, the Enbridge pipelines are located in multiple states, and they are not all connected sequentially. Instead there are separate lines and multiple spurs off lines and some lines are larger than others. Further, some sections of pipeline are quite new, with high booked costs, while other sections, such as those in Michigan, are relatively old chronologically with substantially lower booked costs, but may have a lower effective age, may continue to be used indefinitely and may have a high level of utilization, perhaps, even a higher level of utilization, than newer lines. Further, the interstate fluid pipeline system, although it is nominally regulated, is not subject to rate-base regulation and current regulatory practices permit annual increases in rates without requiring a cost-of-service, plus fair return, analysis. Staff does not believe that under such circumstances there is a sound justification for valuing the Michigan section through the use of an allocated unit valuation.

Staff has a number of specific observations concerning both the Tegarden and the Eyre appraisals, as follows:

1. The effect of using the appraisers' unitary valuation and allocation methodology, advanced by both the appraisers, to value a still expanding interstate pipeline system is to continually value the already built sections lower, and lower, as the system expands further every year, even if the utilization and/or revenue of the already built sections is constant or, perhaps, even increasing. According to Mr. Eyre, the original cost of the Michigan pipeline represents only approximately 10% (actually 10.77%) of the total amount of booked original cost, despite the fact that it represents approximately one-fifth of the total mileage. Staff understands that new pipeline construction is planned for Illinois and Wisconsin. When this construction is completed, the original cost of the Michigan section will make up an even smaller portion of the total booked cost. Staff is unclear as to the justification for assuming that construction outside Michigan necessarily causes in a decline in the value of Michigan assets.
2. Neither the Tegarden nor the Eyre appraisal discusses the physical characteristics, physical and functional condition, or external economic factors associated with the Michigan pipelines. What is the nature of the pipeline? Is there significant real property value that should be considered? What is the size and condition of the Michigan section, particularly in comparison to the sections outside Michigan? What is the effective age of the property? It seems to Staff that a pipeline, even one of significant chronological age, will likely be maintained at a low effective age, for reasons of safety and environmental protection. Most of the pipeline was built in 1953 and most of the rest was built in 1969. The original costs which are on the books, and which were used in making the allocation of value to Michigan, reflect the fact that Staff estimates that construction costs have increased approximately 8 fold since 1953 and approximately 5 fold since 1969. If the effective age of the pipeline is relatively low, and if the level of utilization now and in the future will be relatively high, there may be little justification for using relative original costs as a unit of comparison.
3. Neither the Tegarden nor the Eyre appraisal discusses the level of utilization of the Michigan section of the pipeline. The Eyre appraisal, in its reconciliation, when it indicates that 24.84% of the system's "barrel-miles" are in Michigan, and indicates that the cost of the 777 miles of pipeline located in Michigan is only 10.77% of the total system's original cost, intimates that the Michigan pipelines may be among the most utilized in the entire system. As staff reads Mr. Eyre's report, he indicates that despite the fact that the Michigan section represents only one-fifth of the total mileage of the system and represents only one-tenth of the total booked original cost, it accounts for nearly a quarter of the barrel-miles for the system. If this is true, it seems that an allocation based primarily on barrel-miles, or some other utilization measure, rather than original cost, might be a more justified method of allocation.
4. Neither the Tegarden nor the Eyre appraisal discusses the revenue and/or expenses and/or the level of profitability of the Michigan section of the pipeline, or lack thereof. The financial contribution which the Michigan pipeline makes to the system is not addressed in any way. Staff recognizes that using unitary valuation techniques, combined with an allocation procedure based on original cost and/or barrel-miles relieves the appraisers of the difficult task of analyzing the contribution which the Michigan pipelines makes to the

whole system. However, given the diverse ages of the sections, the differences in physical attributes, the potential for different levels of future utilization and the possible differences in current utilization, Staff believes that some substantial effort should have been made to frame a revenue adjustment factor, even if a unitary approach was deemed necessary. Staff observes that, though it would not be a small task to do so, it should be possible, based on analysis of contractual agreements and tariffs, and through a determination of starting point, ending point, type of product and customer, to arrive at estimated revenue attributable to the Michigan section. Further, normal cost accounting procedures can be used to estimate the direct expenses and overheads attributable to the Michigan section. While it can be argued that such an analysis will not be exact, Staff believes that it would represent a substantial improvement over the broad-brush unitary valuation method which the appraisers suggest.

5. Neither the Tegarden nor the Eyre appraisal discusses, or analyzes, the future prospects of the Michigan section of the pipeline. As stated previously, Staff believes that the Enbridge Pipelines are the only pipelines that carry western Canada's crude oil to the Midwest and Sarnia and that the pipelines are likely to be needed as long as the refineries operate and Canadian crude oil is available. With the growth in synthetic crude production from the Canadian tar sands and Marathon's announced refinery expansion near Detroit, it appears continued, and even increased, use of Lakehead's lines in Michigan is foreseeable.
6. It appears that there may be a mathematical error in the Stipulation which was approved by the Consent Judgment. Although the Stipulation determines that the value of the Michigan pipeline system should be based on a Net Operating Income of \$91,000,000, using a capitalization rate of 9.30 %, the result of this computation is an indicated value of \$978,494,623, not \$924,000,000, as is stated in the Stipulation.
7. The appraisals of the parties differently allocated the amount of the total value to be apportioned to Wakeshma Township. It is unclear what allocation method is now being proposed for use within the State of Michigan and Staff cannot independently verify that all the value is actually being allocated in the settlement proposals being made to the various assessment jurisdictions, or that the allocation method is logical and consistent on a statewide basis.

#### **STAFF'S ANALYSIS AND RECOMMENDATION RELATING TO THE CONTINUED USE OF TABLE K.**

At the outset, it should be noted that the Eyre appraisal, despite Staff's reservations regarding the methodology used, generally supports that value derived for the same assets by using Table K. Further, if Staff had to choose one of the appraisals, it would choose the Eyre appraisal as more reliable than the Tegarden appraisals, for two distinct reasons. First, the Eyre appraisal does not make what Staff believes is an unsupported adjustment downward of approximately one-third in the cost approach to address a purported income short-fall. Second, the Eyre appraisal, in its allocation of the determined value to Michigan does place some reliance (although not enough, in the opinion of Staff) on the level of utilization of the Michigan system (barrel-miles).

Staff believes that the Table K multipliers of the State Tax Commission were developed by considering several factors unique to such fluid pipelines. First, the value of fluid pipelines was enhanced by the fact that the replacement cost for a fluid pipeline increases through time. The valuation of all personal property must take into account the cost of replacing the subject property with comparable property. Accounting for changes in reproduction cost often results in a higher indication of value than would be obtained from simply considering historic cost, less depreciation and obsolescence. In a few instances, where the cost of comparable replacement property is declining, considering the cost of replacement may result in a lower indication of value than would be obtained from using historic cost less depreciation and obsolescence. The second unique factor affecting value is the characteristic that a properly maintained pipeline can have a long economic life, which is extended further by diligent maintenance. The effect of this long economic life is that the replacement cost may tend to increase faster than the rate of depreciation, thereby resulting in the value of the pipeline increasing (when compared with historic cost) through time. The third unique factor was that there was, and still is, only a very limited amount of State and Federal regulation on the rates charged to customers. This relatively limited regulation, combined with limited competition, may result in a return on investment greater than would be realized under rate-base regulation.

As a generalization, the State Tax Commission's recommended personal property multipliers are not expected to account for extraordinary functional obsolescence or for most forms of economic obsolescence. Fortunately, it is unusual for personal property to experience either extraordinary functional obsolescence, or economic obsolescence. In principle, functional obsolescence is a deficiency in functionality that is apparent from comparing the subject property to the replacement property. When applied to the values derived from an original cost multiplier table (such as Table K), extraordinary functional obsolescence is functional obsolescence which is different in character from the functional obsolescence experienced by similar personal property of the same age. Economic obsolescence generally requires a finding that the personal property in question will not, over the longer term, be used at a sufficient level of profitability in its current application. Under-utilization occasioned by poor management or a predictable downturn in the business cycle generally does not indicate functional or economic obsolescence, since the existence of competent management is assumed and the occurrence of periodic business downturns were contemplated when the original purchase decision was made. In recognition of the fact that functional super-adequacy and/or economic obsolescence can exist, the State Tax Commission has, for a number of years, recommended to assessors that they apply a special valuation allowance 24 %, or more, for the portions of the Enbridge pipeline lying East of the Stockbridge Junction.

Staff has been informed by Enbridge that it does not have separate revenue and expense data for the Michigan sections of its pipeline. Review of its FERC report, however, indicates that system-wide its revenues have increased by 34%, its throughput has increased by 15% and its barrel-miles have increased by 20 % since 2001 while its cost of service has only increased by 10%. Without segregated revenue and expense data for the Michigan section, and without market sale data for typical pipeline assets, recognized real and tangible personal property asset valuation methodology dictates that an appraiser should rely primarily on the cost approach to value. Therefore, our review of the reliability of Table K must rely primarily on a replacement

cost, less depreciation and obsolescence methodology. The limitations of this methodology relate primarily to the difficulty in measuring depreciation and more significantly, functional obsolescence (particularly super-adequacy) and economic obsolescence (due to diminished profitability of actual through-put). Staff acknowledges the limitations on this method, but believes that the method can still provide guidance in evaluation the general reasonableness of the Table.

A primary cost approach driver of value for an asset such as a pipeline is the cost of replacement. In the case of Enbridge's pipeline in Michigan, the cost of replacement is significantly greater than when built. The Bureau of Labor Statistic's indexes for steel indicate almost a 9-fold increase in the cost of steel since 1953 when much of the system was built. As mentioned previously, for the parts of the system that were constructed in 1953, Staff estimates approximately an 8-fold increase in construction cost and for the portions built in 1969 it estimates approximately a 5-fold increase in construction cost. Marshall Valuation Service, Section 62, page 6, dated June, 2006 indicates that the cost of a 30" pipeline per mile is estimated to be from \$855,000 per mile, at the low end, to \$1,285,000 per mile at average cost, to \$1,940,000 per mile, at the high end. All of these costs exclude station costs, which add another \$498,251,250 to \$1,130,535,000 excluding easements and rights-of-way. Using the end points and including another 50% for station costs provides an indicated replacement cost new of between \$996 million and \$2,261 billion for Enbridge's Table K equipment in Michigan. We have been able to obtain some verification of these Marshall Valuation Service costs. Enbridge's Spearhead 24" pipeline from Chicago to Cushing, Oklahoma is 650 miles long. Its replacement is estimated to cost \$713,000 per mile, as estimated by Enbridge itself, in a recent FERC docket.

Applying the booked costs for the Michigan portion of the system, as provided by Enbridge, results in an indication that the current Table K values all of the Enbridge pipeline assets Michigan at approximately \$184,781,000. Using the same costs, and the amended multiplier table proposed by Enbridge, will value those same assets at \$68,951,744.

In summary, it appears that Table K currently values Enbridge's pipeline assets in Michigan at between 8.1% of replacement cost, at the high range, and 18.5% of replacement cost, at the low range. If the proposed Enbridge table were adopted Staff estimates that it would value Enbridge's pipeline assets in Michigan at between 3.1% of replacement cost, at the high range, and 6.9% of replacement cost, at the low range. Staff does not believe that it has found any support for such a low valuation of the Michigan portion of the system and, in fact, believes that the proposed value more closely approximates a salvage value than it does a functional asset value, for a portion of the system that carries a relatively high proportion of the system's through-put. In our experience, property that is valued at only 3% to 7% of replacement cost is no longer in service, simply because such a low indication of value evidences a highly dysfunctional condition for the asset. Therefore, Staff recommends that there is every indication that the current Table K values Enbridge's pipeline assets in Michigan in a reasonable manner, and perhaps even conservatively. Staff recommends that Table K should not be modified until and unless further evidence is obtained so that further study can occur.